

Electronic Thesis and Dissertation Repository

---

12-12-2016 12:00 AM

# The Contribution of Community-based Health Planning and Services (CHPS) to Community Sustainability and Health in the Upper West Region of Ghana

Hannah M. Woods, *The University of Western Ontario*

Supervisor: Isaac Luginaah, *The University of Western Ontario*

A thesis submitted in partial fulfillment of the requirements for the Master of Science degree in Geography

© Hannah M. Woods 2016

Follow this and additional works at: <https://ir.lib.uwo.ca/etd>

---

## Recommended Citation

Woods, Hannah M., "The Contribution of Community-based Health Planning and Services (CHPS) to Community Sustainability and Health in the Upper West Region of Ghana" (2016). *Electronic Thesis and Dissertation Repository*. 4323.

<https://ir.lib.uwo.ca/etd/4323>

This Dissertation/Thesis is brought to you for free and open access by Scholarship@Western. It has been accepted for inclusion in Electronic Thesis and Dissertation Repository by an authorized administrator of Scholarship@Western. For more information, please contact [wlsadmin@uwo.ca](mailto:wlsadmin@uwo.ca).

## Abstract

Ghana introduced Community-based Health Planning and Services (CHPS) to improve poor health in rural areas. Research in the Upper West Region (UWR) has found poor health is related to a degrading of social fabric. Recent research suggests the existence of health services in rural, developed contexts increases community sustainability and can be understood through the capitals framework. This study applies the framework to understand the contribution of CHPS to community sustainability and health in the UWR. The region lacks reliable ambulance services; in response, communities have adopted Community-initiated Emergency Transport Services (CETS). The study uses the existence of CETS as a measure of sustainability and gathers details focusing on why some communities have sustained CETS while others have not. Key informant interviews (7), focus groups (12), and in-depth interviews (25) were conducted in 6 communities. Findings suggest CHPS influences health and sustainability through reinforcement of social capital, changes to human capital, and economic gains. The study demonstrates the benefits of CHPS as improving social fabric, and reveals details surrounding CETS.

Key Words: Community Health, Community Sustainability, Rural Health, Capitals Framework, Ghana

## Acknowledgements

Completion of this thesis would not have been possible without the guidance and support of many people. First and foremost, to my supervisor Dr. Isaac Luginaah, I would like to thank you for believing I could take on this project, and for the continued patience and encouragement throughout, especially towards the end when I needed it most! Travelling to Ghana to see your country was the highlight of my master's degree and for that opportunity I am forever grateful. Thank you also to Dr. Godwin Arku for your support along the way, and the administrative staff in the department who ensure things always run smoothly.

Field work would not have been possible without the help of my research assistants Caesar and Jacob. Beyond working tirelessly to ensure data collection was completed efficiently and accurately, you both welcomed me to the Upper West and showed me what a friendly place the region is. Also to all participants who warmly welcomed me into communities and workplaces, there would be no thesis without you- thank you!

Thank you to all of my lab mates for making the lab such a positive place to work and learn. From course-related talks to Ghana pre-departure tips and tricks, I appreciate all the chats and will miss you. My friends and family have played a large role in encouraging me every step of the way cheering me on upon the completion of each milestone. Last but not least, Aleks, thank you for always being a good listener and a constant source of support!

## Table of Contents

Abstract.....	i
Acknowledgments.....	ii
Table of Contents.....	iii
List of Figures.....	vii
List of Appendices.....	viii
List of Abbreviations.....	ix
Chapter 1.....	1
<b>1 INTRODUCTION AND CHAPTER OUTLINE.....</b>	<b>1</b>
1.1 Research Background.....	1
1.2 Research Problem and Question.....	1
1.3 Contributions of this Research.....	3
1.4 Chapter Outline.....	3
Chapter 2.....	6
<b>2 LITERATURE REVIEW.....</b>	<b>6</b>
2.1 Introduction.....	6
2.2 Study Location Context.....	6
2.3 Health Geography and Access to Care.....	9
2.4 Community-based Health Planning and Services.....	12
2.4.1 Implementation of CHPS.....	13
2.4.2 Japan International Cooperation Agency and CHPS.....	15
2.4.3 Barriers to Scaling up CHPS.....	16
2.5 Roads and Access to Health Services.....	17
2.6 Current Objectives of the Ghana Health Service.....	19

2.7 Community-initiated Emergency Health Services in the Context of CHPS.....	19
2.7.1 Diffusion of Innovation.....	20
2.7.2 Change Agency.....	21
2.8 Theoretical Perspectives.....	22
2.8.1 Community Social Capital Strengthening Health Systems.....	22
2.8.2 Community Field Theory and Burchardt’s Social and Human Capital.....	23
2.8.3 Community Sustainability and the Capitals Framework.....	25
2.9 Chapter Summary.....	32
Chapter 3.....	33
<b>3 STUDY DESIGN, METHODS, AND RATIONALE.....</b>	<b>33</b>
3.1 Introduction.....	33
3.2 Research Design and Methodology.....	33
3.3 Qualitative Methods.....	33
3.4 Qualitative Research in Health Geography.....	35
3.5 Choice of Case Study.....	37
3.6 Qualitative Rigor.....	38
3.6.1 Data Collection.....	39
3.6.2 Triangulation.....	40
3.6.3 Theoretical Saturation.....	40
3.6.4 Reflexivity and Positionality.....	41
3.7 Data Collection Methods.....	45
3.7.1 Key Informant Interviews.....	47
3.7.2 Focus Group Discussions.....	49
3.7.3 In-Depth Interviews.....	50
3.8 Data Analysis Techniques.....	52

3.9 Chapter Summary.....	53
Chapter 4.....	54
<b>4 RESULTS.....</b>	<b>54</b>
4.1 Introduction.....	54
4.2 Direct Benefits of CHPS.....	54
4.3 Access to Health Services.....	54
4.4 Family Planning.....	56
4.5 Health Education and Improved Health Outcomes.....	59
4.6 Indirect Benefits of CHPS: CHPS and Community Health and Sustainability.....	60
4.6.1 Social Capital.....	60
4.6.2 Human Capital.....	69
4.6.3 Economic Capital: Indirect financial savings due to CHPS.....	72
4.7 Challenges Related to CHPS and Service Delivery.....	74
4.7.1 Irregular Electricity and related challenges.....	74
4.7.2 Nurse Burnout.....	75
4.7.3 Roads and Transport.....	76
4.8 Community-initiated Emergency Transport Services.....	77
4.8.1 Origin of CETS.....	77
4.8.2 How does CETS work?.....	79
4.8.3 Trust and Money.....	80
4.8.4 Functioning CETS.....	80
4.8.5 Failed CETS.....	82
4.8.6 No CETS.....	85

4.9 Chapter Summary.....	88
Chapter 5.....	90
<b>5 DISCUSSION.....</b>	<b>90</b>
5.1 Introduction.....	90
5.2 Summary of Findings.....	90
5.2.1 CHPS.....	90
5.2.2 CETS.....	92
5.3 Theoretical Contributions.....	93
5.3.1 Primary Care and its Influence on Health in the UWR.....	93
5.3.2 Family Planning and the Demographic Dividend.....	94
5.4 Capitals in the context of CHPS.....	99
5.4.1 Health as Human Capital.....	99
5.4.2 Social Capital.....	101
5.4.3 Economic Gains .....	105
5.5 CETS: Success or Failure?.....	107
5.6 Recommendations.....	112
5.7 Limitations.....	113
5.8 Directions for Future Research.....	113
5.9 Conclusion.....	114
References.....	116
Appendices.....	129

## List of Figures

Figure 1: District Map of the Upper West Region .....	9
Figure 2: Study Location Profiles.....	45
Figure 3: Key Informant Interviews.....	48
Figure 4: Focus Groups.....	50
Figure 5: In-depth Interviews.....	51
Figure 6: Summary of CETS Profiles.....	87
Figure 7: CHPS Contribution to Community Sustainability through the Capitals.....	106
Figure 8: CETS Adoption.....	111

## List of Appendices

Appendix A: Check List for Key Informant Interviews.....	129
--	-----



Appendix B: Check List for Focus Group Discussions.....	130
Appendix C: Check List for In-Depth Interviews.....	135
Appendix D: Research Ethics Approval.....	140
Appendix E: Letter of Information and Consent form for Focus Group Discussions....	141
Appendix F: Letter of Information and Consent form for In-Depth Interviews.....	143
Appendix G: Curriculum Vitae.....	145

## List of Abbreviations

ANC	Antenatal Care Service
CETS	Community-initiated Emergency Transport Services
CHC	Community Health Compound
CHN	Community Health Nurse
CHO	Community Health Officer
CHPS	Community-based Health Planning and Services
CHV	Community Health Volunteer
DDHS	District Director of Health Services
F	Female
FG	Focus Group
GHS	Ghana Health Service
GSS	Ghana Statistical Service
IDI	In-depth Interview
JICA	Japan International Cooperation Agency
KII	Key Informant Interview
M	Male
MHO	Mutual Health Organization
MOH	Ministry of Health
NGO	Non-Governmental Organization
NHIS	National Health Insurance Scheme
SSA	Sub-Saharan Africa
TBA	Traditional Birth Attendant
UN	United Nations
UWR	Upper West Region
WHO	World Health Organization

## Chapter 1

### **1 INTRODUCTION AND CHAPTER OUTLINE**

#### **1.1 Research Background**

A long history of deprivation exists in Ghana, with colonialism and government inaction contributing to the current level of inequality between the rich south and the poor, rural north. Rural residents in the north of Ghana experience inequalities in virtually all aspects of life, and poor health is observed in the region. Despite years of attempts to make improvements, inequalities still exist. Inequitable access to health services has been the focus of such attempts in the northern regions of Ghana; Community-based Health Planning and Services (CHPS) was introduced by the government in 1999 to address the challenges in accessing health services due to geographic barriers. CHPS is a national strategy to deliver essential community-based health services with a primary focus on preventative services in rural communities (GSS, 2016). Although there have been reported improvements in health outcomes since CHPS implementation, some goals have not been met and the northern regions still struggle, particularly the Upper West Region (UWR) where this study takes place. Road conditions are also known to be poor in the UWR and ambulance services are inadequate, acting as significant barriers to accessing emergency care or specialized services.

#### **1.2 Research Problem and Question**

Traditionally, the study of health in the UWR has focused primarily on health service access and provision in the deprived context. Recently, however, research has highlighted the deteriorating social fabric as a cause for concern (Songsore and

Denkabe, 1995; Luginaah, 2008). With few educational and employment opportunities, migration of men to the south, alcoholism, and lacking support services among other factors, the general well-being of the residents of the UWR has been suffering (Kuiire, et al. 2013; Adjasi & Osei, 2007). From a social determinants of health perspective, these factors can all be linked to poor health. An existing framework from the Theory of Capitals (Farmer, Prior & Taylor, 2012) which explains ways in which health services in rural, developed settings may influence and translate into community sustainability, is used in this thesis to examine how CHPS may influence rural communities in the developing context of the UWR. This is done by studying the contributions to social capital, human capital, and economic capital. For the purpose of this thesis, a community is defined as a human settlement with a bounded territory.

Though one of the primary goals of CHPS is to remove barriers to accessing health services, the initiative does not address the subpar National Ambulance Service. Poor road conditions compound the challenges in accessing health care in this context (Rishworth, Dixon, Luginaah, Mkandawire, & Tampah Prince, 2016; Atuoye et al., 2015). The national ambulance service in the UWR has few vehicles that are shared by the districts, and the vehicles are not always in working condition. This is problematic since rural community residents are unable to reach care when they are referred to a hospital a distance away. This barrier to secondary care also prevents CHPS from fully realizing the intended benefit of providing referrals, an important component of the initiative. Given these challenges, some communities have initiated their own emergency vehicle service entitled CETS, or Community-initiated Emergency Transport

Services. Little is known about this service as it has not been formally studied by outside researchers in the past to our knowledge.

The research questions this thesis addresses are:

- 1) What is the contribution of Community-based Planning and Health Services (CHPS) to community sustainability and health in the UWR?
- 2) What are the determining factors surrounding CETS; why do some communities initiate and sustain CETS, while others do not?

### **1.3 Contributions of this Research**

Given the recent research indicating that poor health in the UWR of Ghana is not just about a lack of health services but also the degrading of social fabric, this project is imperative because it offers an innovative approach to examining health in the UWR. While some benefits of CHPS have been documented in the past, such as increased immunizations rates, this research has the potential to demonstrate the benefits of CHPS in a novel way, as potentially improving community sustainability. This would make a strong case to policy makers regarding continued, and/or increased funding for the CHPS at a time when the future of funding is uncertain. Findings from this study may be used in order to further improve institutional and individual level human, economic, and social capital and ultimately improve health in the region. This research will provide an important contribution to the knowledge of CHPS and their effects directly and indirectly on community sustainability, while also shedding light on the understudied Community-initiated Emergency Transport Services and sustainable communities.

## 1.4 Chapter Outline

There are 5 chapters in this thesis. Following this introductory chapter, **chapter 2** provides a literature review of subject matter relevant to this study. A contextual summary of the study location is first provided and includes details specifically related to the UWR, such as demographic and social characteristics and challenges. An overview of CHPS is then presented with explanations of why and how the initiative came to be, details surrounding the implementation process and challenges related to the implementation and functioning of CHPS. Next, the chapter covers roads and access to health services, highlighting the poor road conditions in the region and the related challenges. Access to healthcare is then outlined as it fits into the field of health geography. Current objectives of the Ghana Health Service and subsequently CHPS are listed. CETS is then introduced along with theories that are useful to the understanding of the adoption and sustainment of the service in the context of CHPS and the UWR. Finally, theoretical perspectives related to community sustainability, relationships between community systems and health systems are discussed, and the theoretical framework, the Theory of Capitals, by which this study is guided, is discussed. These perspectives assist in understanding the research problem and objectives.

**Chapter 3** reviews the study design and methods used for data collection and analysis. The usefulness of mixed qualitative methods for the field of health geography is noted, and the appropriateness of using them in this thesis is explained with a justification of methods section. The specific qualitative methods (key informant interviews, focus group discussions, and in-depth interviews) are discussed and their

utility is also explained. The chapter concludes with a brief overview of analysis techniques used.

Results of the study are presented in **chapter 4**. An overview of each finding is presented with participant quotes to demonstrate important points in the words of the participants. The results come from thorough analysis of data and all relate to the research objectives to examine the contribution of CHPS to community health and sustainability, as well as to explore CETS. Findings from key informant interviews, focus group discussions, and in-depth interviews are all presented together in the chapter.

**Chapter 5** discusses findings as they relate to current research and knowledge surrounding the research objectives. Explanations informed by theory are provided for certain phenomenon. Limitations of the study are stated and contributions made to the study of health geography and community health and sustainability literature are discussed. Some recommendations are offered around policies that impact health in the UWR.

## Chapter 2

### **2 Literature Review**

#### **2.1 Introduction**

This chapter will begin with an overview of the study location of the Upper West Region in Ghana to capture the local context. The health system in Ghana is then discussed with a focus on CHPS and the initiative's implementation, followed by CETS. Finally, theoretical perspectives that are used to inform this study are highlighted.

#### **2.2 Study Location Context**

Development and economic prosperity are disproportionately shared amongst the population in Ghana, with the south being better off than the north (GSS, GHS & ICF Macro, 2009; IMF, 2012). The highest poverty rates are observed in regions of the north, with the Upper West Region having the highest incidence of poverty at 70.7 compared to 5.5 in the Greater Accra Region in the south (Cooke, Hague & McKay, 2016; GSS, 2016). The Northern, Upper East and Upper West regions also have the highest rates of poverty depth and severity. Analysis with respect economic inequalities shows that while the incidence of income poverty in general has reduced, depth of poverty has increased, suggesting that the poor are getting poorer. Over 70% of people whose incomes are below the poverty line can be found in the northern areas; on average, residents of the UWR live a third below the poverty line (GSS, 2016). In 2013, the difference between the north and south accounted for 10% of inequality in Ghana. The Upper West Region is one of the poorest, least populated regions in Ghana (GSS, 2012), and only 16.3% of the total population is characterized as urban. Both districts in which this study is carried out (Wa West and Nadowli) are characterized as 100% rural



(GSS, 2010). The region has a total population of 702,110 citizens (GSS, 2012), representing a significantly lower population density and one of the lowest growth rates when compared to other regions in the country.

There are few opportunities for employment or economic gain in the region other than peasant agriculture. Use and abuse of alcohol as a coping response has been on the rise, further contributing to health and economic damage in the region (Luginaah, 2003, 2008). Moreover, the average regional household size is the highest in the country at 5.5 persons, with dependents comprising the majority of those living within a household (GSS, 2014). This large dependent population impacts the availability of social services, health provision, and employment opportunities in the region. Those who are economically active experience increased household expenditures as they are tasked with providing for dependents, and are subsequently unable to save (Luginaah, 2008). These issues have reinforced the high levels of poverty with health status being low and worse than the rest of the country, making it difficult for people of the UWR to better their lot (Dixon & Mkandawire, 2015).

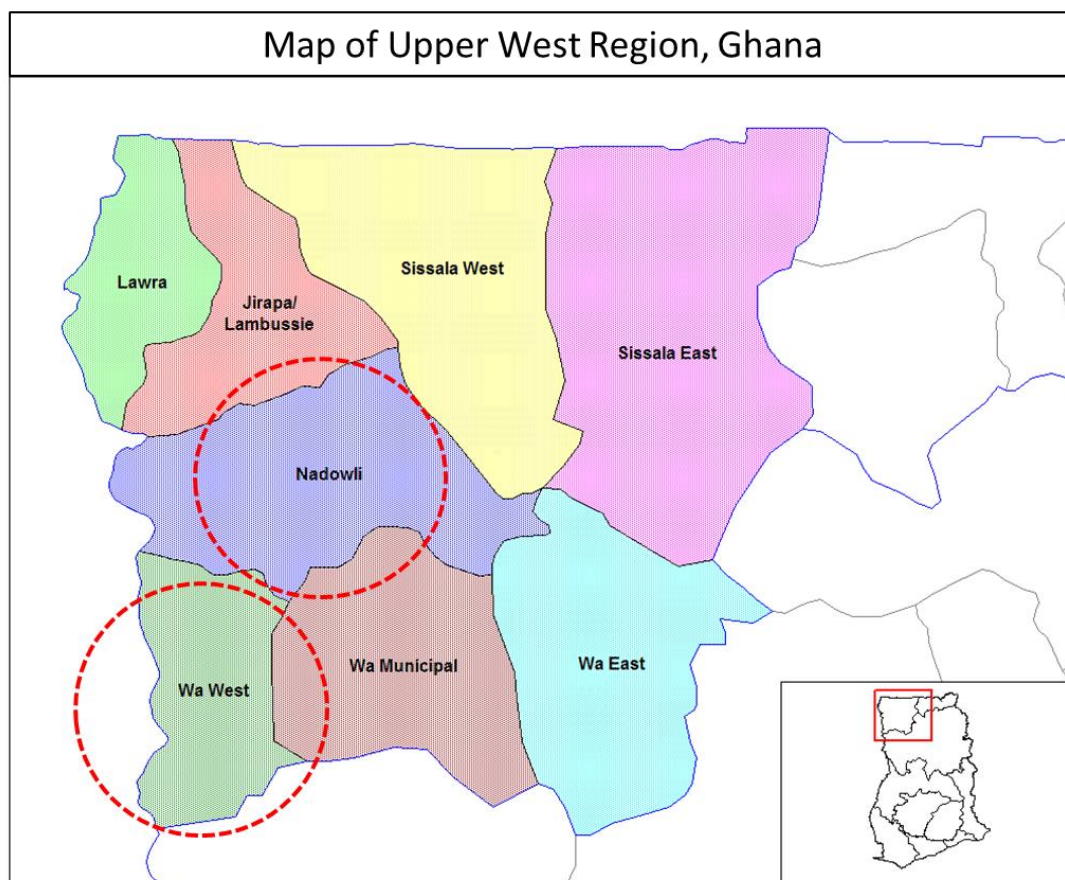
Indicators from the Ghana Living Standards Survey (GSS, 2014) demonstrate that the UWR is below the national averages, ranking consistently one of the lowest or the lowest in virtually all categories (see also Adjasi and Osei, 2007). Of the UWR's total population, over half of the female population is employed in the agricultural sector, with most self-employed in the private sector (GSS, 2012). High levels of deprivation offer explanation for the subpar welfare and living standards experienced in the UWR.

Unforgiving environmental conditions, the historical colonial context, and government policy offer explanation for the inequalities (Konadu-Agyemang, 2000;

World Bank, 2011). Regions in the north experience lower rainfall, savannah vegetation, and are often remote and inaccessible locations. The regional climate consists of two seasons, the wet and dry seasons, with the dry beginning in early November and lasting until June, while the wet begins in July bringing warmer weather and rainfall. Climate change has seen an unpredictable rainy season, beginning later in the year. Given that the primary form of sustenance and economic base of the region relies on agriculture, the changing rainfall is especially problematic, causing drought and increasing food insecurity (Songsore and Denkabe, 1995, Luginaah, 2008). Increasing drought and inconsistent conditions for farming have brought about increased male migration to the south in search of labour and economic opportunities (Kuuire, et al. 2013; Adjasi & Osei, 2007; Lyons & Snoxel, 2005).

While some of the impoverishing factors are mainly external (such as the changing climate), there are also aspects which derive from actions of local and national institutions. Aryeetey et al, (2009) state that inequalities in spatial development in Ghana are rooted in the colonial legacy, and they have been accentuated by non-inclusive post-colonial development policies and strategies (Osei-Assibey, 2014). An examination of 70 former colonies concluded that the scale of settlement in those colonies impacted their level of per capita income as well as the level of inequalities (Cogneau & Guenard, 2003). The colonizers invested heavily in the Coastal and Ashanti territories in the south to the neglect of the north due to the presence of exploitable and exportable resources, the ease with which cultivation could be encouraged, and the ease with which the resources could be transported to the

seaports (Dickson 1975; Osei-Assibey, 2014). There are several factors driving the inequalities experienced in the north and they are varied and inter-linked.



**Figure 1: District Map of the Upper West Region**

\*Adapted from Rarelibra (2006).

### 2.3 Health Geography and Access to Health Care

The link between geography and health is observable in every day life. The location where people live, work, travel etc, have an influence on their life and health experiences. Air quality, foods, diseases and available health services are examples of every day factors that are part of the relationship between people and their environments (Dummer, 2008). As a subfield of human geography, which deals with the interaction between people and the environment, health geography recognizes the importance of context and place in understanding health and determining health

outcomes on both local and global scales. Health geography views health as encompassing society and space, and conceptualizes the role of place and geography in health, well-being and disease; this is a holistic perspective evolved from the more biomedical approach seen in medical geography (Dyck, 1999; Kearns & Moon, 2002; Meade & Erickson, 2000; Mayer, 2000). Concerns about social and spatial polarization especially with inequities and poverty prompted research that explores the causes and implications of health variations, including issues related to poverty, health care access and public health (Dummer, 2008; Kearns & Moon, 2002). While the focus of medical geography tends to be more aligned with epidemiologic inquiries using traditional positivist approaches, health geography is concerned with broader social issues and well-being. In the development of health geography, the concept of place has been significant to the understanding of health as it relates to spatial location as well as how it relates to peoples' experiences of their environments and health (Kearns, 1993; Tuan, 1974; Eyles, 1985). The study of health inequalities and the consequences of spatial and social marginalization on health are among the important developments in health geography, as is the use of various models and theories to understand these relationships (Dummer, 2008). Evolving the concept of place allows for making sense of the multifaceted relationships between the physical and social environments and how these impact health outcomes (Luginaah, 2009). Place and geographic context are now widely recognized as important influencers of health (Cummins, Curtis, Diez-Roux et al., 2007). Given the complexity of the issues facing health and health care, a multidisciplinary approach is adopted in health geography. This allows for careful study of the multitude of factors that influence and determine health, and ensures that the

research provides relevant evidence to inform health policy. Global, national and regional health geography research calls for careful consideration of the local contexts of places and peoples' everyday lives particularly when the aim is to inform health policy development (Dummer, 2008).

Traditionally, research in health geography focuses on two general areas: the causes and spread of disease, and the planning and provision of health services (Drummer, 2008). The latter includes care-seeking behaviour and access to and use of health services. This is one of the primary areas of study in health geography, and research on the topic is extensive. Research around health service use includes access to health facilities and health care providers, the use of services, geographical organization of care- particularly inequalities in urban vs rural environments-, inequalities in health outcomes, social and spatial polarization in health outcomes, among others. The geographic context of places and the connectedness between places are important as they play a role in shaping environmental risks, locating health care facilities, and targeting public health strategies. Inequalities in geographic access to health care may result from the placement of facilities, population distribution, and the transportation infrastructure. In recent studies around access, measures such as travel distance or time have been used as opposed to Euclidean distance, the traditional measure (Delamater et al., 2012). These are all relevant considerations for the purpose of this thesis. With regards to access to resources, access itself has been said to be the most critical resource if people are to build sustainable, poverty-alleviating rural livelihoods (Bebbington, 1999). CHPS directly targets geographic barriers in attempt to improve access to health services and improve health outcomes that have been subpar

in rural areas. Poor health experienced in the UWR is associated with not only lacking health services, but also a myriad of social, cultural, and political factors, all within the rural geographic context. Health geography and its epistemology therefore lends itself to the study of rural health inequities, and how improved access to health services contribute to communities socially by way of capitals.

#### **2.4 Community-based Health Planning and Services**

Community-based Health Planning and Services (CHPS) is a national health policy initiative adopted in 1999 by the Ghana Health Service (GHS) within the Ministry of Health (MOH). The initiative set out to improve access to health care in geographically hard to reach locations, with a focus on underserved remote areas in rural districts. The aim of CHPS was to reform the primary health care system with a shift from facility-based and outreach services, to mobile community-based care provided by resident nurses. The central operational unit of CHPS is the 'zone', a geographic area served by health personnel stationed at a CHPS compound (Nyonator, Awoonor-Williams, Phillips, Jones, & Miller, 2005). A community health nurse (CHN), or a community health officer (CHO) is stationed at the compound and is tasked with providing preventative, health promotion-oriented services as well as curative care for community members. These staff provide mobile doorstep services to community residents and are supported by community volunteers. Services include immunizations, family planning, supervising child delivery, antenatal/postnatal care, treatment of health issues and health education. The role of the community health volunteers (CHVs) is an important one; they are volunteers from local communities who support CHOs and CHNs through assistance with community mobilization and health education along with

other important activities. Community meetings held by the CHN or CHO are the primary means of communication between the CHN or CHO and community members. CHVs also assist in communicating information that is passed along from the CHN to community residents.

#### 2.4.1 Implementation of CHPS

Though CHPS was adopted in 1999, implementation has been slow with some areas still having no CHPS in place. In Nadowli and Wa West of the UWR, CHPS implementation came to some communities around 2006 and later to others, while some still do not have the initiative in their areas. All six communities visited for this thesis have CHPS in place, however the time of implementation varied. The process of CHPS implementation across Ghana has been inconsistent as well, although there are milestones that are supposed to be met (MOH, 2010; Nyonator, 2005):

- (1) Preliminary planning involves conducting district assessments of labour needs and capacities, creating zones defined by boundaries, assessing district equipment and training requirements, and scheduling nurse assignments to zones where the programme is launched.
- (2) Community entry takes place at the zone level where community meetings, or durbars, are held to involve community residents and encourage participation in the program. Holding community durbars is considered to be an effective way of community entry since open discussions are fostered and they are cultural events.
- (3) Community Health Compounds (CHC) need to be built. The compound consists of a room in which the CHO or CHN will stay and a room for the clinic. Community leaders and volunteers are responsible for contributing resources and the

construction of the facility. This process helps to establish community ownership of the initiative.

(4) Placement of CHOs to the CHCs is required and is said to be the most critical milestone. After going through training, the CHO is officially stationed in the community and “moves in” to her residence at the compound.

(5) Launching CHPS services calls for obtaining clinical equipment for primary health care service delivery, and logistics equipment such as bicycles or motorcycles.

These resources are to be provided by the government.

(6) Volunteers are recruited depending on community needs and are to be provided with training pertaining to the tasks they will carry out. Depending on the district and community, volunteers may promote community health mobilization, deliver health and family planning services, or other tasks. A durbar is to be held upon implementing the volunteer program where it is celebrated. Communities are educated about referral services and how to align volunteer services with CHO activities and clinical services at sub-district health centres and district hospitals.

These milestones represent the ideal process of implementing CHPS, however there have been inconsistencies and obstacles along the way. Since the launch of CHPS, the program planning phase has been successful and progressed more quickly than implementing the services; in 2003, 42% of the districts had completed community entry in at least one zone, even though most districts reported having completed planning (Nyonator, Koku, Phillips, Jones & miller, 2005). Further, a higher proportion of zones had completed CHC construction or renovation, suggesting that facilities were being established but community members were not included in the process, and that CHO



placement fell behind other milestones. This strays from the CHPS model of community engagement and undermines community ownership for the program. Qualitative systems appraisals show that when resources are mobilized by community residents, a sense of ownership of the program and its services is developed (WHO, 2007; Nyongato et al., 2005). Constructing facilities without community engagement essentially evades social support for CHPS and hinders sustainable implementation efforts. It is reported that social resources are underused; community organization and social networks could be important to the program for things such as volunteer services (GHS, 2015; Nyongato et al., 2005).

#### 2.4.2 Japan International Cooperation Agency and CHPS

In the UWR, the expansion of CHPS and creation of CHCs has been supported by the Japan International Cooperation Agency (JICA) through funding and on site support. JICA provided funding for related projects through 2006-2010, and the grant agreement for the scaling up of CHPS titled the "Project for the Development of Community-based Health Planning and Service Infrastructure in the Upper West Region" was signed in May of 2012 between the Ministry of Health and JICA with Ghana Health Service as the executing agency (JICA, 2016). The grant provided was in the amount of 989,000,000 Japanese Yen, equivalent to approximately \$12.7 million CAD, and the project ended in 2015. Under the grant agreement, 64 CHPS compounds were developed and 75 CHPS compounds were provided with equipment (JICA, 2016). Funding and support from JICA has been paramount to recent successes of expanding CHPS, and with the project now ended, the future of funding for the initiative is uncertain. It will be important to ensure sustainability moving forward; JICA

put resources in place and provided recommendations for moving forward without their presence. An official handing over ceremony for the project took place in March 2016 at a CHPS Compound in Nadwoli District, UWR.

#### 2.4.3 Barriers to Scaling up CHPS

The CHPS initiative has made considerable progress but challenges exist in expanding the program to more areas and in service provision. According to the most recent GHS annual report, progress in CHPS implementation slowed in 2014 (GHS, 2015). The withdrawal of Government of Ghana funds over recent years adversely affects service delivery, particularly public health promotion and prevention activities that are central to the program. Apparent delayed reimbursement of health facilities by the National Health Insurance Scheme further intensifies the negative effect. According to the GHS (2015), there have been some efforts to collaborate with the National Health Insurance Authority, but this has not led to significant improvement in the late reimbursement of facilities. There are facilities unable to sustain their drugs component of the health financing as a result of funding constraint (GHS, 2015).

Inadequate public health programs both at the sub-district and community levels result in weak community engagement for routine health activities and the operation of CHPS. A lack of human resources has also posed a problem in the effective scaling up of CHPS. The health sector has seen inadequate numbers of staff and unbalanced skill mix of the available health workers. Part of this problem has been due to inequitable distribution of the health workers, which has led to understaffing in many facilities and overstaffing in others. There has been gradual improvement in increasing the number of skilled staff nationwide, but despite efforts, there has been little impact on rural and

remote facilities, the areas that are already most disadvantaged. Greater Accra Region has the highest number of Human Resources for Health (HRH) with Upper West and Upper East Regions having the lowest. Many rural areas lack the minimum number of skilled staff needed to enhance service delivery and quality of care (GHS, 2015). While the three regions in rural Northern Ghana recorded some increases in the HRH in the 2014 report due to the numerous initiatives to bring about equity in human resource distribution, they are still below expectation. For example, the report shows that the UWR had the second lowest ratio of midwives to population and the lowest distribution of medical doctors at 11 for the region (GHS, 2015).

## **2.5 Roads and Access to Health Services**

Road conditions in the UWR are poor, with only 12.5 percent of roads tarred, and most being narrow without adequate drainage. This is problematic because many roads become flooded and blocked in the rainy season, making certain areas vulnerable to erosion (ASIRT, 2014). Residents in the region travel predominantly using tro-tros, motorcycles, or bicycles. Furthermore, the UWR has one of the lowest quantities of CHPS (GHS, 2011); while three quarters of households in the UWR live outside the recommended 8-kilometer radius to a health facility. These factors act as significant barriers in accessing health services (GSS, 2012).

When it comes to improving access to health care, the focus has been on studying and reducing physical distance to health facilities. Only recently have other factors such as time spent getting to the facility and means of transport been studied (Atuoye et al., 2015). Despite the primary aim of CHPS being to increase access to health services in remote communities, no aspect of the initiative focuses on means of

transport. Referral is an essential component of CHPS as patients who need specialized care, particularly emergency or active child labour cases, are referred to the next point of contact, usually at the district hospital some distance away. Yet, referred patients are often unable to reach the next point or receive specialized care due to transportation barriers including financial implications (Atuoye et al., 2015; Macintyre & Hotchkiss, 1994). Failing to include transportation as part of a government health care initiative such as CHPS has negative effects on access to services.

A recent study on transportation barriers to accessing maternal health care in rural UWR identified geographic and economic factors along with failure of rural health policies to address transport as factors accounting for the lack of transport for health-related issues (Atuoye et al., 2015; Thaddeus & Maine, 1994). Community residents attribute the lack of transport for specialized care to the failure of the CHPS initiative to address important challenges of healthcare provision in remote areas where ambulances are not available (Atuoye et al., 2015).

The existing National Ambulance Service is not adequate or effective in servicing remote communities. Due to the poor road conditions, remote locations of the communities, and too few ambulatory vehicles, ambulances are not a reliable source of transport in referral situations. There are only 9 ambulances to service all districts in the UWR, however, the ambulances that are available are not always in working condition. Four of the 9 vehicles had broken down between June 2014 and October 2015, and vehicles were only operational in five districts as of November 2015 according to the administrator of the National Ambulance Service for the region (Modey, 2015). Wa West and Nadowli, the districts included in this study, are not part of the five with currently

operational vehicles. Further, vehicles lack essentials such as equipment and medicines, required in providing emergency services, meaning oftentimes emergency calls cannot be responded to even if vehicles are operational (Modey, 2015). Evidently, access to specialized health services in the UWR is impaired by the poor road conditions and lack of reliable transportation.

## **2.6 Current Objectives of the Ghana Health Service**

The Health Sector Objectives of the Health Sector Medium-Term Development Plan (HSMTDP) for 2014-2017 are outlined in the GHS Annual Report (2014) and include bridging equity gaps in geographical access to health services, ensuring sustainable financing for health care delivery, and improving the quality of health service delivery, among others. In order to satisfy these objectives, the GHS has identified priorities for 2014-2017 which include but are not limited to: accelerate the scale-up of CHPS under the 'close-to-client' service delivery policy; continue implementation of MDG 5 Acceleration Framework and related emergency services; finalize staffing norms and implement the HRH deployment plan to provide skilled middle-level health workers for deprived areas (GHS, 2014). These health objectives highlight the importance of CHPS and the need for improvement in some areas.

## **2.7 Community-initiated Emergency Transport Services in the Context of CHPS**

Community-initiated Emergency Transport Services is a community-lead response to the inadequate national ambulance service. The program comprises a common fund into which residents pay to cover the cost of emergency transport in times of need. There is no existing formal literature regarding CETS to our knowledge; this thesis seeks to uncover more information on the topic. Literature that is relevant to the

concept of CETS includes that on diffusion of innovation and change agency. Diffusion theories informed and continue to inform CHPS activities. Both theories are discussed below as they relate to CHPS and how they may be applied in understanding CETS.

### 2.7.1 Diffusion of Innovation

Innovation and ideas spread through social networks by way of 'diffusion'. Social interaction can facilitate and nurture change in ideas or behaviour; this process is known as social diffusion. Change that occurs through communicated ideas or demonstration of new methods is referred to as organizational diffusion (Mintrom, 1997). CHPS attempts diffusion of innovation by providing exposure to information about CHPS activities or exposure to CHPS district activities. In recognition of the important role of diffusion, programs and activities from the GHS program are designed to catalyze diffusion with planned organizational change activities. Studies on the diffusion of organizational change demonstrate that changes perceived to be host-owned are more easily introduced and accepted than those perceived to be brought from the outside (Melgaard et al. 1998; Nyongator et al., 2005; Simmons et al. 2002; Valente, 2005). This is one of the reasons why community ownership is identified by the GHS and CHPS officials as an essential facet of the initiative. This is relevant in studying CETS as well, since the service has been adopted in communities across the districts by way of diffusion where word of mouth within and between communities has increased awareness of CETS. The community owned basis of CETS is also aligned with the ownership studies given that CETS is community-initiated and sustained (Valente, 2005).

### 2.7.2 Change Agency

Effective change requires committed individuals who act as agents of change. In some instances, change agents are external individuals or organizations who are brought to facilitate change; however, a balance between external assistance and strategies for internal ownership is necessary for a successful change-agent strategy (Nyonator et al., 2015; Weiner, 2009). For instance, CHPS change agents are reported to be most effective when they are GHS employees working as a team rather than as individuals or unconnected outsiders. In the case of CHPS, the change agents have been the former Deputy Minister for Health, the Nkwanta District Health Management Team, leaders of the Navrongo Project, which was the experiment that led to the development of CHPS, and various Regional Health Administration teams that have promoted CHPS action (Nyonator et al., 2015). In the case of CHPS, external agencies and individuals have also played a role as change agents, particularly with technical assistance in combination with the provision of resources for financing the changes.

Access to health care represents a critical aspect of poverty alleviation, especially in resource-poor regions and districts of Ghana; CHPS is the health sector's contribution to national poverty-alleviation policies. Despite the known importance of accessible, adequate healthcare and the demand expressed for CHPS in communities where it is absent and appreciation of it where its operating, program managers have expressed concern about sustainable funding (Nyonator et al., 2005). During the earlier years of implementation, financial uncertainty was compounded by the perceived complexity of getting started with a new program and the concerns about staff morale since posting in rural communities is necessary. Launching CHPS was thus perceived

by many managers as an administrative risk. This perception contrasts with the experiences of managers and staff who have been exposed to the initiative and have learned that community resources are more available than expected since community health care is in high demand. Where CHPS operates, the services are in demand and appreciated, so residents are keen to contribute resources for construction and other inputs where possible. Commitment to CHPS arises from experience with the program.

## **2.8 Theoretical perspectives**

Theories used to explain the relationship between community systems and health systems and collective community actions are highlighted.

### **2.8.1 Community Social Capital Strengthening Health Systems**

While this thesis concerns itself with health system influence on the community, there is also literature to show that communities influence the health system. In looking at social capital in community systems, LeBan (2011) tells how important social capital in communities can be in strengthening a health system. Every intervention has an effect on the overall community system (WHO, 2009); there could be expected positive effects or unintended positive or negative effects. She states that a health system ultimately intersects in people's lives in their local community spaces, and that social support, social capital, capacity to make decisions and trust between individuals within a community are important determinants of health service usage and outcome. LeBan (2011) discusses that community contexts are "mini universes of complex social, political, associational, economic, power and cultural dynamics, providing a different theater for providing health services and facilitating behavior change than in a health facility". These dynamics and relationships within and between communities and their



environment influence health status. At an organizational level, a high-functioning community underpins and supports an effective health system. This foundation includes networks of supportive relationships, community associations to support the impoverished, health service choices that are effective and equitable, and community institutions that monitor health outcomes and quality of services. A strong community also enables the government to invest limited health resources more efficiently by making use of local human resources and assets.

Community social capital has been linked to a variety of community health status variables through different mechanisms such as reducing or buffering stress, coaching and urging of healthful practices, providing information to expand one's knowledge base about health and increasing responsibility for the well-being of others (Folland, 2007; LeBan, 2011). Community organization and social capital have also produced positive effects in helping families escape poverty by supporting households to cope better with illnesses and negative events, and enabling investments in land based activities (such as livestock production or natural resource management) that provide a source of rural income (Krishna, 2010).

### 2.8.2 Community field theory and Burchardt's Social and Human Capital

Community field theory was proposed to understand collective action in communities (Kaufman, 1959), and explains relationships between individuals in a geographic setting as the motivation for community action (Kaufman & Wilkinson, 1967). The study of community organizations has three main properties: ecology, social organization, and community action, all providing social bonds. An ecology perspective

looks at the community as an organization of social life for day to day needs and to help adapt to changes of a particular environment (Wilkinson, 1991, 1972). Social organization recognizes community as an interactional structure where common needs and interests of residents exist. Community action observes local solidarity in the way the community members act in times of challenge or success; they seize opportunities to advance themselves and create solutions to community problems (Wilkinson, 1991, 1972). Solidarity is necessary in doing so, and the absence of solidarity can damage community cohesion. Community field theory as applied to community development projects seeks to ensure that internal and external interests share a common goal.

Burchardt (2008), explains that human capital is a concept used by economists and often measured by labour experience or educational qualifications where the benefits are mostly seen by individual. Social capital is a collective good which is beneficial to the group rather than individual. The two forms of capital are interrelated and complementary: high levels of human capital generate social capital, and social capital promotes achievement of human capital.

The community field theory (Wilkinson, 1991) and social and human capital (Burchardt, 2008), are interrelated theories that have been combined to explain the contribution of community field and human capital towards the performance and sustainability of Mutual Health Organizations (MHOs) in Ghana (Adomah-Afari, 2015). Both community field theory and social capital explain the extent to which members in a particular environment mobilize available resources and use social dynamics to undertake developmental projects to advance themselves. Mutual Health Organizations are voluntary organizations that provide health insurance services to their members and

are usually owned, designed and managed by the communities they serve (WHO, 2008). MHOs involve community participation in health care delivery, allowing members to make suggestions about their own health concerns. Atim (1999), and Ridde et al. (2010), report that MHOs can have an effect on social dynamics among members as well as the community at large. LeBan (2011) applied a systems approach to review the actors, structure and processes of community contexts and proposed a set of key components in improving health care.

### 2.8.3 Community Sustainability and the Capitals Framework

This thesis uses the Capitals framework (Farmer et al., 2012) as the basis for studying the ways in which CHPS contribute to community sustainability. It is a theory of how rural health services contribute to community sustainability in developed places, and this thesis applies it to the developing context of rural Ghana.

The concept of capitals is useful in assessing the value of health services to a community. 'Capital' is a term cited regularly in sustainability literature with work supporting the concept that overlapping capitals may reinforce sustainable communities (Farmer et al., 2012; Fey, Bregendahl, & Flora, 2007; Mission Australia, 2006). Conceptual frameworks for evaluating community sustainability have come from this notion and have grown in popularity (Cocklin & Dibden, 2005; Svendsen & Sørensen, 2007). A multidisciplinary team (Cocklin & Alston, 2003; Dibden & Cocklin, 2003) investigated 'The Sustainability of Australian Rural Communities', producing a conceptual framework. It is suggested that the framework provides an original theory that has the potential to lead to measurement of the impacts of losing or gaining health services on community sustainability (Farmer et al., 2012; Cocklin & Alston, 2003;

Dibden & Cocklin, 2003). This is based on the idea that added-value contributions of health services add community stocks of various capitals. Services such as healthcare, schools, and banks have been suggested to contribute to communities beyond their primarily intended function (Kilkenny & Nalbarte, 2003; Shucksmith, Chapman, & Clark, 1996). For instance, health services have been suggested to make economic contributions (Doeksen & Schott, 2003) and schools to have a social function (Witten, McCreanor, Kearns, & Ramasubramanian, 2001), while retail services, post offices and banks may act as social hubs where community residents learn about local information by word of mouth (Countryside Agency, 2001). Contributions of the built environment to the way a community 'feels about itself' are suggested to be important in assessing the value of the infrastructure (Hope, Murray, & Martin, 2004). For the purpose of this thesis, only health services are considered.

The capitals and the concept of a capitals framework have been applied in other studies and appear to show strong potential for analyzing and measuring categories of health service's added-value contributions framework (Farmer et al, 2014). The benefit of using a capitals framework is that elements regarded as constituting sustainability could be assessed (Farmer et al, 2014; Cocklin & Alston, 2003). While there are various forms of capital including natural, cultural, social, economic, human, and so on, this thesis focuses on the value-added contributions of economic, social and human capital to community sustainability (Bebbington, 1999). Each capital component as it relates to the framework is outlined below.

### *Community sustainability*

The notion of community sustainability popularized following the World Commission on Environment and Development's *Our Common Future* (1987), which applies to sustainable development. The definition: "meeting the needs of the present without compromising the ability of future generations to meet their own needs" is commonly used to mean sustainability (World Commission on Environment and Development, 1987, p. 1). Frameworks and indices have been created to measure absolute and relative sustainability and to track longitudinal change and are usually based on expert opinion rather than research (Farmer et al, 2012; Spilanis et al., 2009). Indices include the Index of Socio-economic Sustainability for Remote and Rural Scotland (Copus & Crabtree, 1996) which includes regional indicators of demography, economic activity and community and culture. The Canadian New Rural Economy Project identified leading and lagging communities by looking at indicators of population, income, housing and employment (Parkins, 1999). These indices do not allow for measurement or modelling the impact of changes to certain sectors of communities; this poses a challenge to studying the role of health services. The concept of capitals is useful here, holding the notion that communities have different stocks of different types of capital and that these interact to determine the sustainability of a community (Farmer et al, 2012). The theory of capitals and capitals framework is discussed below.

### *Economic capital*

Economic capital comprises monetary resources (financial capital) and infrastructure (built or produced capital) (Cocklin & Alston, 2003). Financial capital includes income and wealth that may be invested in community capacity-building and

accumulated for future community development (Fey et al., 2007). Individuals' income, investments and loans contribute to the financial capital in a community (Cocklin & Alston, 2003). Built or produced capital refers to infrastructure such as transport (O'Leary, 2006).

### *Social capital*

Social capital is centrally concerned with social relationships and current conceptualizations reference Bourdieu (1986), Coleman (1988) and Putnam (1993,1995). Bourdieu suggested social capital has two components; the amount and quality of resources and the relationships, or networks, that allow people to access them. Coleman describes social capital as reflected in relationships where it encourages productive activity, and as displayed in trustworthiness and trust. While Bourdieu and Coleman view social capital as a benefitting primarily individuals, Putnam (1995, p. 67) regards social capital as “features of social organisation, such as networks, norms and trust that facilitate action and co-operation for mutual benefit.” Accordingly, social capital can be thought of as the level of associational involvement and participation within a community (Johnston & Percy-Smith, 2003).

Social capital can be studied in various ways, whether in a collective sense or at the individual level as well as community level. Individual social capital refers to individual networks and involvement in society. At this level, social capital can become a component of human capital, alongside other skills and knowledge sources such as education that encourage productivity and social inclusion. Research suggests that individual social capital can also be an alternative resource, for example to offset a lack of education, where individuals with less education deal with the challenges of daily life

by leaning on social supports and networks (Bleakley, 2010). At the community level, studies of social cohesion through participation and women or minority empowerment, for example, have been linked to levels of interpersonal trust and lower crime rates (Buonanno, Montolio, & Vanin, 2009). Community social capital can affect community health through various ways including the spread of health information, healthy behavioural norms, and promotion of access to local social services. Moreover, local social capital can mediate and strengthen bottom-up collective action among a population to obtain resources from higher-level institutions. For example, a successful attempt could see enhanced policy and decision making to better serve the community. Examples have shown how networks play a central role in enabling people to take action to improve their livelihoods and mobilize and defend their resources (Bebbington, 1999). These networks also provide an environment conducive to community discussions, allowing people to have healthy debate where voices can be heard. Thus, social capital contributes to quality of life and is essential in enhancing the rural poor's capacity to be their own agent of change (Bebbington, 1999; Sen, 1997). Indeed, among the poor, social capital has been identified as having potential to reduce vulnerability to a range of problems (Moser & Lister, 1999, Colletta & Cullen, 2000). It has been correlated with a reduction in household vulnerability in particular (Woolcock, 1998) and with household income (Grootaert, 2001). Social capital can also preserve and further develop the other forms of capital by encouraging certain forms of identity formation and patterns of interaction that enable people to gain control over factors and decisions that shape their lives. They can then question and challenge the status quo and ultimately transform their everyday geographies and livelihoods for the better

(Taabazuing, Luginaah, Djietror & Otiso, 2012; Kley Meyer, 1993). This aspect has a critical influence on health, as demonstrated by evidence on health inequalities within social hierarchies, summarized in the WHO Commission on the Social Determinants of Health (CSDH, 2008). In particular, mutual trust and social participation may confer a higher degree of control.

Trust can be viewed as an indicator of the potential for the development of social capital. Trust is often considered a requirement for building social capital that is produced from social networks (Madhavan & Landau, 2011). Trust in relation to social capital can also be looked at as trust in local and national government. The World Health Survey (WHO, 2003) includes trust in this sense, and demonstrates that in the context of studies of social capital and health, trust in government can be used as a measure of confidence that individuals' basic needs will be addressed collectively. Social capital can be damaged when trust in others or the government is compromised, for instance, if the government fails to keep promises or neglects communities, or if residents experience high rates of crime among their areas (Taabazuing, Luginaah, Djietror & Otiso, 2012; Bleakley, 2010).

### *Human capital*

Schultz and Becker established the concept of human capital, recognizing human resources and their abilities, knowledge and skills as exchangeable resources (Sweetland, 1996). Becker's Human Capital Theory (1964) suggests that investments in human capital through education or training increase worker productivity and potential for future income. Wide spread acceptance of the human capital concept is in part due to Bourdieu (1986) who argued the societal impacts should be seriously considered.



Recent definitions of human capital refer to it as the abilities, skills and knowledge of individuals and their capacity to contribute to society through production, decision-making, leadership and innovation (Cocklin & Dibden, 2005).

The production of human capital contributes to quality of life in many ways, which Sen (1997) collectively refers to as human capability. Similar to the way that social capital can enable people to take action and be agents of change, so too can human capital. The ability to read and write, for instance, enhances people's ability to secure better jobs and do them more efficiently, but also enhances their ability to engage in discussion. Being knowledgeable on community issues for instance, can increase feelings of confidence and thus the likelihood of contributing to discussions or debates. In these ways, human capital can enhance the ability to be agents of change; people are better equipped and more apt to question and challenge ideas or initiatives, and propose new ways of doing things (Bebbington, 1999; Sen, 1997).

Human capital may be become stagnant when individuals experience a deprivation of geography that severely impacts their livelihood; by drought harming crops, for instance. Being unhealthy also detracts from human capital, since individuals who are ill are often unfit to work productively, particularly in subsistence farming involving physical labour. In this sense, health is a kind of human capital as well as an input to producing other forms of human capital (Taabazuing, Luginaah, Djietror & Otiso, 2012; Bleakley, 2010). Additionally, human capital can impact and interact with economic and/or social capital (Woolcock, 1998).

The capitals framework provides a theory that enables measurement of the impacts on community sustainability of health services. The framework provides a

theory for understanding the ways that categories of added-value may contribute to community sustainability in rural, developed contexts. This study makes use of the capitals framework by examining how the CHPS contribute to community sustainability and health beyond its primary purpose through economic, social, and human capital.

## **2.9 Chapter Summary**

The social fabric in the UWR has been degrading, with all indicators of welfare being subpar. Livelihood stress is high and quality of life is low. There have been improvements in terms of health outcomes due to increased attention to more accessible preventative as well as curative health services, however challenges still exist. Perhaps the greatest challenges with regards to health service delivery are funding and transportation, as the government has made cuts and important grant agreements such as that with JICA come to an end, and poor road conditions and lack of transportation persist. The insufficient National Ambulance service paired with poor road conditions make emergency health services nearly impossible to access; some communities have taken matters into their own hands and have started CETS as a result. Existing literature on the service is little-to-none. Theories that guide and inform the study of CETS include diffusion of innovation and change agency as they relate to the spread of ideas, behaviours and change both with CHPS and CETS. Social capital is an important concept in this thesis, and is included in a few relevant theories. Social capital in community systems and its impact on the success of health system and service delivery, social capital combined with human capital as a theory of community action, and social capital within the capitals framework as an added value contribution of health services are all considered in this thesis.

## Chapter 3

### **3 STUDY DESIGN, METHODS, AND RATIONALE**

#### **3.1 Introduction**

This chapter presents the methods, study design, and data analysis techniques used throughout this thesis. The chapter begins with an overview of qualitative methods and their place in health geography, followed by a discussion of rigor in qualitative studies. The methods of data collection including key informant interviews, focus group discussions, and in-depth interviews are then discussed. Lastly, the chapter describes data analysis techniques used.

#### **3.2 Research Design and Methodology**

This thesis uses the case study methodology with multiple qualitative research methods to address the research objectives. The research is concerned with uncovering the added value of health services in local communities and specifically how the economic, human, and social capital of local communities are influenced within the context of CHPS. Since the thesis aims to gather rich data based on community members' lived experiences to reveal details surrounding CHPS and community health sustainability, qualitative methods were ideal (Silverman, 2005). Ethics approval for this study was obtained from the Western University Non-Medical Research Ethics Board.

#### **3.3 Qualitative Methods**

Qualitative research became important in geography in the 1970s with the development of humanistic and interpretative approaches, and the use of philosophies

such as phenomenology, existentialism, and idealism. It was seen to provide data that was more rich and in-depth than quantitative data, allowing more insight into people's experiences and a focus on why and how events happen. Qualitative methods have remained an important component of geographic inquiry, providing an array of techniques for investigating socio-contextual relations. Given this, qualitative methods are effective for a wide range of research topics and theoretical approaches (Denzin & Lincoln, 2005; Hesse-Biber & Leavy, 2004). Qualitative data is often generated through interviews, focus groups, observation, ethnography, and participatory methods, and typically uses case studies focused on people, communities, and places (Castree, Kitchin, & Rogers, 2013).

Criteria for using qualitative methods often include the need to make sense of complex situations, contexts and settings; to uncover how participants construct their worlds; to help individuals have their voices heard and to gain rich, deeply detailed descriptions from participants (Denzin & Lincoln, 2005). Questions that require in-depth examinations to uncover contextualized meaning concerned with human beliefs, values, and actions are well suited to qualitative methods (Silverman, 2005). These investigations often strive to generate social change or new theory through the exploration and description of social phenomena (Sofaer, 1999). Further, qualitative researchers strive to generate a holistic account of the issue being studied by capturing important parts of people's lives which are not aptly measured using quantitative methods.

Qualitative research is important in studies of health care since experiential aspects and personal constructs of health can be discovered (Giacomini & Cook, 2000).

Methods such as interviews, focus groups, and participant observation provide the capacity to produce place sensitive accounts regarding geographic dimensions of health and health care (Hay, 2000; Dyck, 1999). This thesis adopts a holistic qualitative approach since it strives to generate an in-depth understanding of community member's experiences to reveal how community health services may be contributing to community health sustainability to potentially improve social fabric. The complexity of health care in Ghana, specifically in the UWR where no known work on this topic has been done, along with the importance of context in this thesis further warrant the use of qualitative methods. By capturing narrative accounts and explanations, the contribution of CHPS to community health and sustainability can be discovered.

#### **3.4 Qualitative Research in Health Geography**

An evolutionary shift from medical to health geography occurred over the past several years. The traditional field of medical geography was characterised by the biomedical model and used quantitative methods with a focus on disease ecology, while the transition towards a more holistic approach has resulted in the field known as health geography (Luginaah, 2008, 2009; Dyck, 1999). The shift in approach to understanding the relationship between space, place, and health has been towards a focus on well-being and social constructions of health in place (Kearns & Moon, 2002). Methodological changes have accompanied the transition from the quantitatively positivist approach, whereby qualitative methods are now acknowledged as beneficial to enhancing the study of health and place. Moreover, the relationship between health and place has evolved; space and place are no longer seen simply as locations where events affecting health occur, or where health outcomes are observed. Rather, space

and place are recognized to be important in understanding the breadth of contextual factors that affect health (Kearns & Joseph, 1997; Moon, 1990).

Qualitative methods became widely accepted and useful in health geography as they are suited to the philosophies of the field where understanding context specific meanings emerged as significant in health promotion. Thus, the use of qualitative methods lends itself to analyzing things that are socially constructed through the ability to capture the views and experiences of the participants. This allows links to be made between constructs of health, behavioural choices and health outcomes within a specific locality (Poland et al., 1990; Elliot, 1999). The move from medical to health geography, with its theoretical and methodological changes, allows for social and cultural contextualization in the study of health in place.

Furthermore, given the complexities of the phenomena studied in health geography, it is acknowledged that multiple methods can be used. It is widely agreed that research quality is enhanced by multi-method investigations for various reasons. Use of multiple methods implies using more than one method to investigate the same problem, not to be confused with mixed methods, a combination of qualitative and quantitative methods (Hoggart, Lees & Davies, 2002; Rank, 2004). In using multiple, complementary methods, the researcher is able to gain deeper insight into the phenomenon under study, and the capacity for interpreting meaning and behaviour is increased. This is because using multiple methods provides “multiple routes to the same result” (Hoggart, Lees & Davies, 2002; Elliot, 1999).

This thesis uses multiple qualitative methods (key informant interviews, focus group discussions, and in-depth interviews), embracing the dynamic complexity of the

context, participant values, perceptions and experiences (Hoepfl, 1997; Hemming, 2008). This strategy addresses past critiques that no single method is adequate to solve the problem of competing explanation (Patton, 1999). This thesis adopts a qualitative approach since it strives to generate an in-depth understanding of community member's experiences to reveal details surrounding the impact CHPS has on community endowments of health.

### **3.5 Choice of Case Study**

According to Yin (2003), case study methodology is suitable for descriptive and explanatory as well as exploratory studies. A case study design is appropriate when asking "how" or "why" questions, when study participants cannot be manipulated, and when contextual conditions are to be considered as they are relevant (Yin, 2003; Baxter & Jack, 2008). A case study approach was used to investigate how CHPS contribute to community health and sustainability in the rural communities of the UWR. Qualitative case studies allow for in-depth exploration of issues and take into account contextual influences (Baxter, 2010) to produce deep, illustrative explanations for phenomena from various data sources. Drawing from a variety of data sources ensures the issue is explored from different viewpoints, allowing multiple aspects of the issue to be highlighted and understood (Baxter & Jack, 2008). The approach enables the researcher to capture the perspective of the participants without manipulating the information gathered (Hancock & Algozzine, 2006). Since the focus of case studies is to generate in-depth, thorough understanding of a given phenomenon based on participants' experiences, achieving a large sample size is not relevant. Given this, qualitative case studies are not meant to be generalizable in the statistical sense, but

can be used to create credible theoretical explanations that may be generalizable in the analytic sense (Baxter, 2010). The use of the qualitative case study methodology in this thesis allowed for descriptive as well as explanatory investigation into the community-based health services, and the processes by which they contribute to community sustainability. The complex nature of healthcare in Ghana (Abel-Smith & Rawal, 1992; Buor, 2005; Ensor & Cooper, 2004; Ganle et al., 2015; Jagri & Yeboah, 2016; Oppong & Hodgson, 1994; Saeed & Abdul-Aziz, 2013), multi-faceted concept of community sustainability (Farmer et al., 2012) and unique context of rural communities in the UWR warrant the qualitative case study approach in this thesis. Further, the approach is suited to this thesis as it applies an existing explanatory concept to a new case, both to test the pre-existing theory and in attempt to generate new theory as it relates to the study location context (Baxter, 2010).

### **3.6 Qualitative Rigor**

The ability to share others' experiences through qualitative methods should be viewed as a privilege and as such, interpreting and representing other peoples' experiences comes with the responsibility to ensure the work is credible and trustworthy (Stake, 1995; Baxter & Eyles, 1999; Golafshani, 2003; Bradshaw & Stratford, 2010). Establishing this trustworthiness should begin early with research design and continue throughout the research process (Baxter & Eyles 1999, 1997; Lincoln & Guba, 1985). According to Baxter & Eyles (1997), the most common ways to ensure rigor are providing information that justifies methods, the use of multiple methods, information on participant selection, and presentation of verbatim quotations. Qualitative rigor in human geography is understood to consist of credibility (accurate representation of



phenomenon under study), transferability (apply to contexts outside the study), dependability (consistency in interpretation), and confirmability (ensuring findings are a result of participants' experiences rather than the researcher's motivations or biases) (Guba, 1981; Lincoln & Guba, 1985; Shenton, 2004). Common provisions to ensure credibility include the adoption of multiple appropriate methods, becoming familiar with the culture of participants, triangulation and thick descriptions.

Transferability can be achieved by providing background data regarding the context of the study, and dependability by providing an in-depth description of methods.

Triangulation is important to ensure confirmability, and the researcher should recognize and disclose their beliefs and assumptions going into the research process. In this thesis many of these provisions are used; the careful selection of data collection methods, triangulation, theoretical saturation, and positionality and reflexivity protect against threats to rigor.

### 3.6.1 Data Collection

The selection of data collection methods was an early step in striving for a rigorous study. Choosing data collection methods that are widely recognized as appropriate for answering the type of research questions in this thesis, as well as for the field of health geography, made a contribution to the credibility of the study (Yin, 1994). Prior to data collection I familiarized myself with the study context and culture through consulting literature, speaking with colleagues who originate from the study location, and visiting the communities to introduce myself. While conducting focus groups and interviews, I recorded detailed notes on themes and issues that emerged and made observational notes regarding details such as group dynamics. Selecting multiple

methods allows for methodological triangulation, thus also contributes to credibility (Baxter & Eyles, 1997).

### 3.6.2 Triangulation

Data triangulation is generally understood as the employment of different but complementary data sources and collection methods to investigate the same research problem (Hoggart, Lees, & Davies, 2002). There are four main sorts of triangulation: multiple sources, methods, investigators, and theories (Denzin, 1998; Baxter & Eyles, 1997; Guba & Lincoln, 1989). In my thesis, involving a range of informants promotes triangulating through data sources. From district directors of health services, community health nurses and volunteers, to community members, the range of information sources contribute to multiple source rigor. I used methodological triangulation in my thesis through using multiple complementary methods, which allows for greater cross-validation (Hoggart, Lees & Davies, 2002). Using different means of data collection to examine the same research issue addresses the biases and limitations of using any one mode of collection on its own, and can illuminate different aspects of the problem under study (Guba, 1981; Brewer & Hunter, 1989). Further, investigator triangulation assisted the rigorous analysis of data. Consulting with my supervisor, Dr. Luginaah, and colleagues throughout data analysis process provided a fresh perspective and constructive feedback. Subjecting the data analysis process to scrutiny by peers or academics is said to enable the researcher to refine methods and strengthen interpretation and explanation of results (Shenton, 2004).

### 3.6.3 Theoretical Saturation

Theoretical saturation is defined as “data adequacy” and is achieved by collecting data until no new information emerges (Glaser & Strauss, 1967, p 61; Morce, 1995). While conducting my research, some themes such as social networks and unity repeatedly emerged in focus group discussions and interviews, while some were briefly mentioned or mentioned in some discussions and not others. In order to achieve theoretical saturation, I revisited these topics with a new line of questioning in focus groups in which the issue was briefly mentioned, or posed questions related to the newly emerged issues in subsequent focus groups. In-depth interviews were an essential tool in reaching theoretical saturation as well, as they provided participants the opportunity to expand on issues brought up in focus groups and to contribute any information they felt was missed. For example, at a point in the data collection process, no new information was arising regarding social networks and unity, but further exploration of the ways in which CHPS has effected gender relations in communities, a theme that occurred occasionally, was needed in order to meet theoretical saturation (Glaser & Strauss, 1967).

#### 3.6.4 Reflexivity and Positionality

Since researchers practicing qualitative methods make interpretations about what they see, hear and understand, they must critically self-reflect to address power dynamics between themselves and study participants. Practicing reflexivity by becoming aware of the ideas that inform the researcher’s understanding of the topic under study and locating “embodied knowledge” are necessary exercises early in the research process (Waite, 2010). The researcher must acknowledge their position and reflect on how it relates to the processes, people, and phenomenon being researched throughout

the research process, and should evaluate and reflect on how their pre-existing knowledge and ideas change while conducting research (Rose, 1997). During analysis and interpretation, it is suggested to document the interpretation process and reflect, to ensure that findings are being accurately represented (Bradshaw & Stratford, 2010). The personal characteristics and biographies of the researcher, including age, race, class, gender, and level of education, influence the ways the researcher conducts themselves as well as how they perceive the researched (England, 1994; Dyck & Kearns, 1995). While these issues can't be eliminated entirely, reflexivity and positionality make the researcher aware of the relationships and how information, and the ways it is attained, may be effected. Prior to conducting my fieldwork, I reflected on my own positionality and what this meant for my research.

Given I am a Canadian born, white female, my status as a cultural outsider was obvious when I travelled to the UWR of Ghana to conduct my research. Cross cultural research poses a threat to rigor since the outsider status can hinder gathering an accurate representation of the phenomenon (Irvine, Roberts, & Bradbury-Jones, 2008; Hennink, 2008; Merriam et al., 2001). Prior to arriving in Ghana there was concern that I would face challenges in recruiting people for focus groups and interviews because of my outsider status. While I have visited sub-Saharan Africa (SSA) previously, I had never conducted research in SSA or any developing context. I was concerned that the local people may not feel comfortable associating with me or my research. However, once I arrived I received a friendly welcome and that warmth continued through the two months I was in the region. Community members were welcoming and willing to participate in the research; for focus groups, more people than needed were

consistently willing to participate. Some participants stated they prefer to talk to an “outsider” rather than a CHPS official or somebody working for an NGO. In some communities the women even put on song and dance as a welcoming gesture after focus groups. While this came as a relief, it was still important for me to be cognisant of my role as a researcher and the relational issues that accompany it.

Building rapport with people in the area of study can be a challenge, particularly in cross cultural research (Valentine, 2005). For me this was facilitated by connecting with people who had pre-established relationships with my supervisor, Dr. Isaac Luginaah, or other students of his who had studied in the region. Since Isaac is from the UWR and has had multiple students conduct their research in the area, introducing myself as a student of his was helpful in initiating research and building rapport. One of Dr.Luginaah’s current students is also from the region and has prior experience working with a CHPS official who I was able to connect with. He was instrumental in assisting with community selection (he had access to data indicating which communities had functioning CETS, no CETS, or failed CETS), and introduced me to the regional director of health, an individual I may not have had the opportunity to meet otherwise. Two of Dr.Luginaah’s previous students who conducted research in the region were able to recommend a research assistant whom they worked with and regarded highly. These pre-existing connections allowed me to develop a network and become accustomed to the culture of the UWR.

Deciding which communities to include in the study was a combined effort. The inclusion criterion was established by my supervisor and I prior to arriving in Ghana; I wanted to go to two districts where in each there was one community that had CETS

successfully running at the time of interviews, one that had initiated CETS previously, but had since collapsed, and one that had never initiated CETS. The status of CETS is used as an indicator of sustainability as it is a community-initiated, owned and operated program. The efforts required to initiate and/or sustain CETS are in line with the concept of community sustainability as highlighted in the literature review.

Since I had no way of knowing the status of CETS in each community in the UWR, a CHPS official and the regional director of health shared information initially, and then the DDHSs assisted me in selecting specific communities. These contacts were all very helpful. For example, the DDHS for Wa West was able to direct me to the community where the concept of CETS originated.

Since I was conducting research in rainy season which is also farming season, we needed to select communities accordingly. The research assistant was insightful here. For example, rather than selecting a district that would require three or more hours of travel time on the motorbike, we selected closer ones to account for possible delays resulting from heavy rain and to ensure fieldwork would be completed by the end of my stay.

I worked with two research assistants over the duration of my fieldwork. I began working with one who is a high school teacher; however, due to conflicting schedules he was no longer able to assist me and connected me with another research assistant. They both played a crucial role in my ability to conduct fieldwork as they accompanied me to meetings, transported me to the communities, introduced me to community members and translated interviews.

### 3.7 Data Collection Methods

This thesis uses interviews with key informants, focus groups, and in-depth interviews to understand the research objective. Ethics approval for these methods and interview checklists was obtained from the Western University Non-Medical Research Ethics Board. Male and female adults from six communities in the UWR of Ghana were interviewed to assess the contribution of the CHPS to community sustainability. Community sustainability was chosen due to its capacity to encapsulate the idea of healthy, thriving communities as highlighted in the literature review. Three communities were located in one district, Wa West, and three were located in another district, Nadowli. The communities within each district were determined after meeting with the Regional Director of Health and CHPS officials in Wa Municipal based on the status of CETS since as CETS were used as a measure of sustainability. In each district, one community had functioning CETS, one did not have CETS at all, and one had attempted to initiate and sustain a program, but failed. In Wa West, Dabo (functioning CETS), Varimpere (failed CETS), and Talawona (no CETS) were the communities under study. In Nadowli, the communities were Gbanko (functioning CETS), Noru (failed CETS), and Kpazie (no CETS).

**Figure 2: Study Location Profiles**

	Status of CETS	Distance to Nearest Health Facility	Approximate Population	Year CHPS services commenced
<b>Wa West</b>				
Dabo	Functioning	14km (Dorimon)	2234	2004
Varimpere	Failed	3km (Vieri)	1652	2006
Talawona	None	34km (Wa West District Hospital)	1218	2006
<b>Nadowli</b>				

Gbanko	Functioning	7km (Jang)	1135	2012
Naro	Failed	7km (Jang)	3650	2003
Kpazie	None	-----	-----	-----

Participant recruitment was facilitated by the DDHSs who provided information in order to contact other key informants and local community leaders including Community Health Officers (CHOs), Community Health Nurses (CHNs), and Community Health Volunteers (CHVs). A letter of information was given to key informants with reading capabilities prior to scheduling interviews. Prior to scheduling interviews, the research assistants and I met with key informants at the community level who were not able to read to explain the thesis, the aim of the research, and the need for their input. CHOs, CHNs and CHVs played an important role in recruitment and organization of participants for focus groups; they helped to organize discussion locations, dates, and recruited participants from their communities. Focus groups and interviews were scheduled for times that were most convenient for community members as to limit interruptions to farming and other daily activities. For example, interviews were rarely scheduled for Fridays since that is when funerals typically take place. After each focus group was completed, participants were asked if they would be interested in participating in in-depth interviews to expand further on themes that had emerged. Verbal consent was obtained before undertaking interviews and focus groups to receive consent from illiterate participants. All focus groups and interviews were translated from the local language to English and audio-recorded to be transcribed later; participants consented to this. For each focus group observations were recorded in my notebook regarding group dynamics, setting, and number of participants. Detailed notes on issues and themes brought up were also recorded for key informant interviews, focus groups,



and in-depth interviews. The need for privacy and confidentiality of the study participants was expressed to the research assistants and they signed a confidentiality agreement. Contact information was provided in the letter of information in case participants are interested in the study results.

### 3.7.1 Key Informant Interviews

For this thesis, eight interviews were conducted with a broader group of key informants in the UWR, which, for the purpose of this research, are defined as individuals who are affiliated with the region's health system, CHPS officials and representatives, or who are involved with CETS. Interviews were conducted with the District Directors of Health Services, CHPS representatives at the regional and district levels, community health officers and nurses, and community health volunteers. Previously established contacts with CHPS officials were used as a starting point in acquiring these interviews. Key informant interviews occurred one-on-one at the convenience of participants and usually took place in participants' places of work. All key informants were residents of the region at the time of interviews and are familiar with the social and geographical context. The purpose of the key informant interviews is to gather background information of the policy formation of the CHPS and specialized knowledge of the communities.

While this study aims to provide a platform for members of the communities to share their experiences and voice their opinions, the key informant interviews provide a slightly different perspective on the topic (Lytle et al., 2003; Wig, Suleiman, Routledge et al., 1980). Key informant interviews are beneficial to this research as participants were able to provide valuable insight that may have otherwise not been obtained. The

individuals interviewed were able to provide insight on policy formation at a the national and/or regional level as well as local community characteristics. Insights regarding community characteristics were particularly useful for the consideration of community sustainability in this thesis; for example, CHNs who stay in the communities where they work offer a unique perspective since they have an understanding of community dynamics and relations but are still removed in that they are not “community members”. Prior to conducting interviews, it was expected that approximately six-ten interviews would be sufficient; this held true, as theoretical saturation was reached with eight key informant interviews (Sandelowski, 1995). The interviews were conducted between early June 2015 and late July 2015 in the UWR and the sample consisted of two males and six females. The imbalanced male to female ratio is due to the gendered nature of professions targeted as key informants for the purpose of this thesis; for example, CHNs and CHOs are usually female.

**Figure 3: Key Informant Interviews**

District	Community	Date	Key Informant
Nadowli		07/14/2015	District Director Health Services
Nadowli	Gbanko	07/13/2015	Community Health Officer
Nadowli	Kpazie	07/06/2015	Community Health Nurse
Wa West	Dabo	07/04/2015	Community Health Volunteer
Nadowli	(not community level)	07/03/2015	CHPS coordinator
Wa West	Wechiau (not community level)	06/15/2015	District Director of Health
Wa West	Varimpere	06/13/2015	Community Health Officer
Wa Municipal	Wa	06/14/2015	JICA/CHPS official

### 3.7.2 Focus Group Discussions

The focus group method involves a small group of participants discussing the topic under study from personal experience (Powell & Single, 1996). The researcher is able to observe the nature of the dialogue and learns through discussion about the participants' views and understandings of the issue, as well as the range of views the participants hold (Conradson, 2005, p. 129). The group is a setting which stimulates extensive discussion and free flow of conversation (Berg, 2004) to stimulate new ideas and discussion topics. The challenge associated with this method is that it is possible for a few assertive people to dominate the conversation (Baxter & Eyles, 1997).

Six to eight individuals were recruited to participate in each of the focus group discussions for this study, however more people often showed up. Two focus group sessions (one male group and one female group) occurred in each of the six communities making a total of twelve focus groups. Due to cultural norms whereby women may be less inclined to voice their views in the presence of men, male and female focus groups were conducted separately. This reduced risk to participants and created a comfortable environment for sharing experiences. The focus groups were conducted with a flexible checklist and explored the main themes of this research project. Focus groups were most commonly conducted outside at the community health compound, but also took place at common community gathering settings that were comfortable for participants and provided privacy for the discussion. Research assistants translated to remove language barriers; I asked questions in English which were translated directly by the research assistant to participants. Participant responses were then translated to English and discussions were audio-recorded for further

transcription and analysis. Participants were reminded that they may choose not to answer any question or withdraw from the study at any time and were informed that if any of them were not comfortable with being audio-recorded, they would be invited to participate in an in-depth interview, where audio recording would not be required. No participant voiced concern with being audio-recorded or chose not to answer questions. All focus groups and interviews were audio-recorded. Important topics and findings from all in-depth interviews and focus group discussions were also recorded by me in my notebook.

**Figure 4: Focus Groups**

District	Community	Date	Men or Women
Wa West	Dabo	07/08/2015	Women
Wa West	Dabo	07/08/2015	Men
Wa West	Varimpere	06/16/2015	Women
Wa West	Varimpere	06/17/2015	Men
Wa West	Kpazie	07/11/2015	Women
Wa West	Kpazie	07/11/2015	Men
Nadowli	Gbanko	07/13/2015	Women
Nadowli	Gbanko	07/13/2015	Men
Nadowli	Naro	07/14/2015	Women
Nadowli	Naro	07/14/2015	Men
Nadowli	Talawona	07/09/2015	Women
Nadowli	Talawona	07/09/2015	Men

### 3.7.3 In-Depth Interviews

The focus group discussions were followed up by conducting in-depth interviews. In-depth interviews provide the opportunity to gain valuable information that may otherwise be missed in a focus group situation, and to further explore themes that emerge in key informant interviews and focus groups. Using the thematic saturation

sampling principle (Baxter & Eyles, 1996), this thesis conducted eleven in-depth interviews with people from the communities with functioning CETS (six females and five males), eight (six females and two males) from communities with no operating CETS, and eight (six females and two males) in the communities where CETS was once initiated but failed. The gender imbalance for in-depth interviews is largely due to women expressing more interest and willingness to participate. Men tended to express that they had said all they wanted to say in the focus group discussions, whereas women were more interested in discussing topics further, or adding new information that did not come up in focus groups. These interviews help to create deep understandings about the ways in which CHPS impacts communities beyond direct health benefits in terms of community sustainability, based on individual experiences. Since in-depth interviewees had already participated in the focus groups, the interviews also served to practice member checking; I was able to check my interpretation of the focus group in addition to exploring issues further. Interviews were conducted in a setting familiar to the participants to ensure comfort in speaking about topics. Research assistants translated the interviews which were recorded for further transcription and analysis.

**Figure 5: In-depth Interviews**

District	Community	Number of Interviews
Wa West	Dabo	5 (3 females, 2 males)
Wa West	Varimpere	5 (3 females, 2 males)
Wa West	Talawona	5 (3 females, 2 males)
Nadowli	Gbanko	6 (3 females, 3 males)
Nadowli	Noru	3 (3 females)
Nadowli	Kpazie	3 (3 females)

### 3.8 Data Analysis Techniques

Interviews and focus groups were translated by the research assistants during the interviews and recorded. I then transcribed the interviews and became familiar with the content and emerging themes by reading the text thoroughly before I began coding. After the initial read through I began to analyze the data more formally, starting with a deductive coding approach. This involves creating a list of codes prior to fieldwork based on research questions, conceptual frameworks, and problem areas. For this thesis, initial codes were derived from the Capitals Framework (Farmer et al 2012), and were intended to provide guiding structure for the start of analysis. I created tables with categories and associated codes for easy reference while reading through transcripts. The start list codes fit the data well but were modified to account for “bulk”, where one or two codes dominated much of the transcripts; sub-codes were used to further categorize data in order to facilitate more efficient and in-depth interpretation. While these codes were useful, it was also important to employ inductive coding, where codes emerge from the data progressively. This allowed me to uncover and take into account repeated ideas, concepts or themes that may have been missed otherwise. After having read through the transcripts using both deductive and inductive content analysis, I was fully immersed in the data and ready to interpret further. I looked for patterns such as behaviours, norms, relationships, local meanings and explanations, and commonsense explanations, within cases as well as between cases. Patterns were also recorded in a chart which allowed me to link them with codes more easily. This process was repeated as different segments and patterns or explanations were interrelated.

While it is sometimes suggested to use computer programming for coding and analysis in qualitative work, I chose not to do so. Practically, I am not familiar with coding software as I have never used it before. I felt it would take a long time to become comfortable and fully competent in using coding software, and given the restricted time frame allotted for analysis, I opted to code manually. Moreover, the total number of interviews was small enough to code by hand. Manual coding also allowed me to become immersed in the data and was a process I enjoyed.

### **3.9 Chapter Summary**

This chapter provided a description of the study design and methods used to carry out the study. This thesis uses a qualitative case study approach as it is well suited to the research questions. As such, qualitative methods and their utility in the field of health geography were discussed and the case study methodology was outlined. The chapter then discussed the use of multiple methods in qualitative research, and Data collection methods specific to this study and the details of how the key informant interviews, focus groups, and in-depth interviews were conducted are outlined. Finally, the chapter discussed data analysis techniques that were used to interpret data and generate themes.

## Chapter 4

### **4 RESULTS**

#### **4.1 Introduction**

This chapter presents the results of the study. Interview questions focused on uncovering contributions of CHPS to health and community sustainability as well as gathering information on understudied CETS. Questions were informed by the theoretical framework used in this thesis in order to capture relevant information pertaining to the contributions of CHPS to social, human, and economic capital. Results are presented starting with the direct benefits of CHPS to communities, followed by indirect benefits relating to the Capitals Framework. Results regarding CETS are then presented with an overview of facilitators and barriers to initiating and sustaining the program in each studied community.

#### **4.2 Direct Benefits of CHPS**

Direct benefits of CHPS, for the purpose of this thesis, are considered those that are experienced as a direct result of CHPS implementation. Increased access to health services, health education, and improved health outcomes emerged as themes relating to the direct benefits of CHPS to the communities in Wa West and Nadowli, as reported by community members and key informants.

#### **4.3 Access to Health Services**

Improved physical access to health care was identified as the most obvious benefit of the implementation of CHPS. In all discussions, it was stated that having the CHPS compounds at the community level makes it easier to access and use health care services. Prior to the implementation of CHPS, residents were required to travel to



the nearest hospital for health services, usually by foot. These long distances along with poor road conditions and rainy seasons discouraged utilization of health services:

“when our wives used to have to go far, rains would fall heavily and add to their health situations. Now if its raining they can just wait until it stops and go to the CHPS compound” (M, FG, Varimpere).

Furthermore, if a resident is not well enough to travel to the CHPS compound, they are still able to receive health services:

“if some person is bed-ridden, you can still get care. The community health officer will come to you. You can’t get this anywhere else” (M, FG, Gbanko).

Access to timely care for babies and children was a topic that emerged in most discussions and interviews as well. Since some infants experience acute episodes of illness, the distance to and accessibility of the compound is an important factor because residents are able to seek care quickly:

“We seek early treatment for childhood illnesses as opposed to before, by the time they transport those children who are too sick to go to the further health facilities, they might end up dying on the way. Some children develop a sudden illness but once CHPS is just very close to us we can send our children to seek early treatment. It is saving our children” (M, FG, Talawonaa).

The ability to receive care in the night, particularly for babies or children, was identified as another main benefit of CHPS since parents are able to take children or babies experiencing symptoms in the night to the CHPS compound:

“Because of fear in the night, children wouldn’t be sent to Nadowli hospital, now even if its midnight and the child is not well, we can bring the child to the CHPS compound here” (F, FG, Kpazie).

In cases of emergencies or when specialized treatment is needed, referrals are also available. Access to care or referrals during the night is dependent on the CHN sleeping at the compound. Ideally CHNs are to stay and sleep at the compounds, however there

are some communities in which they do not usually due to lack of electricity or other basic amenities.

Improvement in access to ANC specifically was also discussed as a benefit in almost all discussions. More women reportedly attend ANC services at the CHPS compound given the easy access:

“women used to have to travel long distances and wouldn’t go [for antenatal care], but now they go for antenatal care since it is close” (F, FG, Talawonaa).

Participants noted that CHPS has generally achieved its goal of “bringing health to the doorsteps of Ghanaians” in the literal sense.

#### 4.4 Family Planning

Family planning was a theme that emerged throughout group discussions and interviews. A component of the CHPS initiative is the promotion of family planning services through education and provision of contraceptives at the CHPS compound.

Participants discussed the provision of family planning as a benefit of CHPS:

“Initially, you needed to go to Wa. Most women feel shy going to talk to a nurses in Wa for family planning. And because most of us are not educated, we may not know when the contraceptive injection wears off and it is time to receive another one. We also don’t have the means to be going to Wa often. But once CHPS is here the nurses themselves have our records so they are able to remind you when you need to get another contraceptive injection. The number one benefit of CHPS to me is family planning” (F, IDI, Varimpere).

Since women get to know the nurse who serves their community, they report feeling more comfortable visiting her for family planning since the service deals with sensitive subject matter. Moreover, when women are able to use contraceptives, they report feeling a sense of control over their bodies and their ability to care for their children. In

some cases, offering family planning services in the community reportedly positively influences marital relationships:

“family planning is a benefit. There’s less fighting among women and husbands because if I wasn’t ready to give birth and the husband wants to sleep with me, that would bring problems, but now I am able to play safe” (F, FG, Dabo).

Males are now included in sensitization campaigns for family planning. There are some reports that some men are becoming supportive since they are being educated on family planning:

“initially because of the lack of sensitization we used to do it behind our husbands but now that the CHOs talk to both men and women about the benefits, we don’t see it as something we should be hiding from our husbands. The husbands go with us and decide what is the best method. But initially it wasn’t like that we were hiding from our husbands” (F, FG, Dabo).

While supply side factors have theoretically increased access to family planning services, women discussed social challenges as substantial barriers to access. Many men have not been receptive to efforts to gain their support through sensitization activities. There have been mixed results according to female community members:

“They’ve [men] been sensitized on family planning and it depends on the type of man. Some men will readily accept it and even go with you to the compound, others you have to sneak out and get it. So the acceptance is inconsistent” (F, FG, Gbanko).

CHNs also reported that support for and acceptance of family planning services has been inconsistent among men:

“Most men in this community are not happy about family planning. But there is this one man over here, he comes with his wife to the compound for the service. He is the only one here who does that...there are just some few who support family planning” (F, KI, Talawonaa).

According to female participants, the largest barrier in accessing and using family planning services is men's disapproval of their wives accessing the services and using contraceptives:

“Sometimes your husband will be against it but you as a woman, the nurses have educated you and you know that the less children you have the more you can take care of such children. So you really have to go behind your husband and do this...the men just don't agree and most men don't support family planning...A man came to try and beat the nurse for giving family planning services to his wife without his consent” (F, IDI, Varimpere).

“a nurse was here she spoke to both men and women about family planning, so the men came together and said they will come and beat her because since she came here their women are no longer giving birth...there's just some small few that support it” (F, IDI, Talwonaa).

The discussion surrounding family planning and particularly the possibility of violence against women as a consequence of using or providing contraceptives suggests that sensitization efforts targeting men should be further developed and potentially altered. All in all, family planning is seen as a benefit and women support the use of contraceptives, however the social context is important in addressing barriers to access. In cases where men are supportive, women report positive influences on male-female relationships, but when men are not supportive it is detrimental and is associated with violence against women.

Overall, the physical location of CHPS compounds at the community level has improved access to and use of health services both at the clinic and at the hospital. These findings are expected as the primary goal of CHPS is to increase access to and use of health services in remote communities. The findings are also consistent with existing knowledge that access to care has increased (Johnson et al., 2015; MOH, 2010; GHS, 2015).

#### 4.5 Health Education and Improved Health Outcomes

Health education is another theme that emerged when discussing the benefits of CHPS and has an indirect effect on community health and sustainability. CHOs and CHNs provide health education to the communities they serve on a range of topics. This is a component of the initiative that participants appreciate and enjoy according to our conversations. Participants discussed how they are informed about the importance of practicing healthy living habits in order to prevent and lessen the impact of illnesses. Community members demonstrated an eagerness to learn when discussing topics such as breast feeding guidelines, keeping surroundings clean and the health concerns associated with risky practices such as leaving uncovered food out. Health education promotes confidence in community members' ability to care for themselves and their families, and sharing information with others is enjoyable particularly among women.

Related to access to the compound and health education, benefits to physical health were also brought up in all focus group discussions and interviews when participants were asked about the benefits of CHPS. There was consensus among participants that the CHPS initiative has improved the physical health of community residents. Participants report suffering less when they fall sick due to more timely treatment and being sick less often due to the focus on health promotion. For example, improvements in child health was reported and credited to preventative measures such as increased access to vaccinations:

“because of the nurse coming around to vaccinate our children, they can now stay healthier...before we would have to travel far so it was a barrier to accessing vaccinations that are very relevant to our children's health and growth” (F, FG, Naro).

“There was a high prevalence of measles but access to vaccinations has helped that” (F, FG, Talawonaa).

Better access to vaccinations and drugs to treat illnesses were discussed frequently.

Accessibility of medications for every day maladies has also improved quality of life

according to participants:

“Now that it [CHPS compound] is here, I can go and have my health insurance card and show up to get drugs for my dizziness I was experiencing in the mornings” (F, IDI, Dabo)

“CHPS gives medicines. We can come anytime and get treated...it helps with common ailments” (F, FG, Varimpere).

These are also expected benefits of CHPS and are consistent with the improved health outcomes reported by GHS and the MOH, such as improved child health and increased access to vaccinations, as a result of CHPS implementation (MOH, 2011; GHS, 2015).

#### **4.6 Indirect Benefits of CHPS: CHPS and Community Health and Sustainability**

The following section will discuss results relating to the Capitals Framework as discussed in the literature review and methods chapters. During analysis, themes emerged that align with the capitals framework. Namely, CHPS makes contributions to rural communities by way of promoting social capital, human capital and economic capital.

##### **4.6.1 Social Capital**

Analysis revealed that CHPS appears to create a social network and thus contributes to the community through social capital. CHPS has provided a location for social interaction and provided a locus for voluntary action. As highlighted in the literature review, these themes align with the Capitals Framework as added value contributions of health services. Gender relations also emerged as a theme where

participants talked about the ways in which CHPS has apparently influenced male and female relationships.

### *Location for Social Interaction*

The CHPS compound was identified as a location for social interaction by participants. The compound acts as a community centre, a public space where residents come together for a number of purposes. Since community members are called to meet at the compound by the CHN for various health-related reasons, community members are interacting on a regular basis:

“Before CHPS came, it was very difficult to get all community members together for a meeting. The availability of CHPS has brought people together” (M, IDI, Dabo).

This has created social connections:

“from time to time the whole community is brought together for the CHN to educate us on some health issues, and through that process we develop community human relations...we meet and share things that are of interest to the whole community” (F, FG, Kpazie).

Simply coming together in the same physical space for meetings lead by the CHN has created a familiar place for community organizing and mobilization. Further, it creates an opportunity for dialogue that tend to be led by community members:

“Even when we have other meetings, we hold it here. It brings people together for other purposes, using the CHPS compound as a meeting place” (M, FG, Varimpere).

Moreover, it is easier for community members to self-organize meetings when groups are already present at CHPS-related meetings. For example, women reported that attending antenatal care services provides opportunity for organizing meetings on other community-related issues:

“Aside the issue of coming for drugs, the CHPS concept has helped us to be more united, to come together, to always have periodic meetings...On the days for ANC for instance, a lot of women come around, so instead of you trying to go around and call women to come for a meeting, you will have people here and its easier to organize meetings” (F, FG, Varimpere).

The compound has become a safe place for open dialogue; for this reason, when arranging interviews and focus groups, community members and CHOs usually recommended that the CHPS compound be the location.

Bringing people together at the CHPS location also facilitates creation of social and emotional bonds according to participants. Formation of friendships was reported frequently by women:

“The CHPS compound and the antenatal care services we have to attend regularly bring women together and we interact amongst ourselves...sometimes we ask about the welfare of our households and even learn best practices that some women are doing. If someone comes here dressed nicely we will want to as well, so next time we come we also look good.” (F, IDI, Naro).

Women were observed gathered at the compound for postnatal services laughing and enjoying one another’s company. These types of social relationships are important in boosting morale and help to promote community health and sustainability.

Men talked less about emotional bonds, and but reported that they help one another on farms when needed in the spirit of communal labour. Participants discussed how the spirit of communal labour that was necessary during the implementation of CHPS has continued; people are generally willing to help each other when needed. Knowing there are people in the community to rely on in times of need is important for community relations.



Participants reported that CHPS has also helped to create and/or improve relationships with other communities since CHPS compounds tend to serve more than one community:

“other communities come here for health services, so that brings people together here. We get to interact with other communities” (M, FG, Varimpere).

Further, since CHPS is community-owned, residents in communities served by the compound are responsible for upkeep of the grounds. Meetings are arranged by the communities in order to do so, and this was reported as another way that CHPS creates an extended social network between communities:

“we meet with the communities around to discuss issues about how to manage the CHPS compound. In that way it is promoting inter-community living and trust among the communities...it is even exposing us to a lot of ideas from each other” (M, IDI, Talawonaa).

Evidently, the location of the CHPS compound acts as a meeting space for community members as well a social hub. Residents have attached meaning and a sense of ownership to the compound beyond a location to access health services, to a place where they can organize meetings or simply visit with friends.

#### *Improved Community Trust: a function of social capital*

Residents discussed the role of trust in the development or maintenance of social capital, consistent with social capital literature (LeBan, 2011; Lyon, 2000; Fenenga, 2015). Trust was a recurring topic of discussion among participants. Community members agreed with each other that regular meetings, whether arranged by the nurse, or themselves, have created a stronger sense of trust. The closer relationships within

and between communities along with awareness of what is going on in their own and nearby communities, have apparently made participants feel that they can trust one another in a general sense. Mistrust was said to often be the reason for conflicts in the community, so improvements in trust issues are beneficial to individuals as well as to the community at large for stronger bonds and social capital. The CHNs have purportedly played a role in the establishment of trust, since they are usually trusted and respected individuals in the community. Examples were cited where acceptance and uptake of ideas was more likely when they are introduced, supported or endorsed by the nurse because she is trusted. This finding is consistent with literature which states that social connections increase trust and trustworthiness, and that individuals with higher status are often seen to be more trustworthy (Nyonator et al., 2005).

“having CHPS here...the women sit here...and we get used to the nurse. She is able to mobilize us and the women are united. We have formed groups for support” (F, FG, Varimpere).

*Unity in Times of Need: improved social capital*

The concept of unity was discussed repeatedly in interviews and group discussions. Social networks and connections were referred to as unity by participants. This is a context specific concept as unity is a part of the culture. CHPS has been credited with bringing unity in communities where residents work together towards common goals for the greater good of the community.

“CHPS has brought togetherness and unity. We have meetings to discuss issues and we are also working hard to get a bore hole. So it’s a result of our unity that these things are coming” (M, FG, Dabo).

The social connectedness facilitated by CHPS has:

“brought a lot of benefits to us. Unity and support in times of need...when a community member is in need we are able to support that person...there’s also a lot of women’s groups, notably the mother to mother group, and it is because of the CHPS compound that these groups have been set up” (M, IDI, Dabo).

Uniting to provide social support during difficult times was discussed as a benefit frequently:

“CHPS has brought unity among women where they meet every week to contribute towards emergencies like funerals. When there’s a funeral, all the women will go to support the woman who is bereaved. It has brought support for social functions like funerals” (M, FG, Dabo).

Related to the notion of community unity is the view that CHPS forms a location for voluntary action. When CHPS were initially implemented, communities partook in communal labour to build CHPS compounds. Participants stated that the fact that CHPS are community-owned formed the basis on which people are keen to participate in the community in both formal and informal ways.

### *Gender relations in the Context of CHPS*

In line with the fact that CHPS compounds are places where community relations are built, it emerged from the analysis that relations between men and women are impacted. When the CHN calls for community meetings, both men and women are present and all attendees are encouraged to speak to share ideas or opinions. Yet due to traditional cultural/ social norms, women tend not to feel comfortable speaking in a group in front of their male counterparts, especially when being asked about their opinions. According to participants, women sometimes fear violent consequences of speaking their mind in public and therefore tend to stay quiet. With CHPS in place, although these challenges still exist, there has been some improvement due to the regular meetings where men and women’s voices are valued.

“before if you wanted to say anything it meant you needed to seek permission from your husband or male counterpart before you could say those things. But because of regular interactions and meetings we have, we are able to express our opinions in public in front of the males. Being able to talk, we are building self confidence out of the regular meetings we hold. We know we can be able to sit down in the presence of men and women as well” (F, FG, Gbanko).

The women who reported feeling comfortable speaking in front of men all mentioned that this has been a relatively recent development due to things such as regular meetings, interactions, and sensitization targeting men. They expressed a substantial positive impact on their sense of self-worth when their opinions are valued in a public forum:

“We as women can express our views in front of our male counterparts, which used not to be so, because of the regular interaction...we are able to contribute effectively to discussions on issues that matter to all of us. So it has given us social recognition as people that can also contribute, not only males. We as women can also contribute to any social issue in the community...men recognize us as part of the development planning process in the community” (F, IDI, Kpazie).

However, other women report they still do not feel completely comfortable voicing opinions in the company of men in public as they may be misunderstood and subsequently reprimanded by their husbands:

“If you speak your mind, your husband will say you are coming to expose your house, your family issues at a public community forum, meanwhile what you are saying as a woman is just something general that effects community development. But there are issues where women have been beaten” (F, IDI, Varimpere).

The notion that only men are meant to be the leaders generally persists with women feeling like their ideas will not be taken seriously by men:

“Sometimes there are other things we want as women, but men will carry on with this and will say women are trying to be independent and the leaders when they should be the leaders” (F, IDI, Varimpere).

Some women also expressed frustration with this since there are times they have ideas that they can work towards, but need the support of men to succeed. On the other hand, there are men who recognize women as important actors in the process of development and acknowledge their accomplishments:

“the women have women’s groups and other things that they do, but with the men we are having a problem...the women are the development agents because they are always able to come together to initiate anything” (M, FG, Varimpere).

Males are also aware of the fact that some women fear speaking in front of men at meetings:

“the nurses should try as much as possible to encourage the women to always talk when they have meetings. Because the women don’t like talking when discussing community matters” (M, FG, Varimpere).

Few men also acknowledged that men are the cause of this, and called for a change among the men:

“We have to start making the men realize the need to allow women to talk when the men are there...there’s no way we can unite with women if the women’s opinions can’t be heard. If women are afraid it will be difficult for us to come together...so one of the things we will have to do is to make sure that most older men will have to agree they need to allow women to express their views” (M, IDI, Varimpere).

This recognition by men is necessary in order to change social norms that inhibit women’s participation in community matters for the overall improvement of community sustainability.

Participants also discussed CHPS influencing marital relationships in that stresses associated with accessing health care are less compared to before the CHPS era:

“There are stronger family ties among us. We can access health care and go back to working on the farm or household duties in the same day, so there is less fighting between husbands and wives” (F, FG, Gbanko).

The closeness of the CHPS compound allows families to save time and resources, so there is less stress about time taken off work and caring for children and less stress on relationships. The easier access of CHPS allowed for bonds to form between husbands and wives:

“since the compound is close men often accompany women whereas before, just women would go” (F, FG, Kpazie).

Women talked fondly of this as it allows their husbands to be more involved in the process of pregnancy.

CHPS has seemingly influenced gender relations resulting in increased confidence in public sharing of opinions, although some women are still afraid of making their point due to fear in the public arena. Some men, although few, acknowledged the need to change these norms. Stronger marital relationships are also reported due to less stress in the home and on relationships.

#### 4.6.2 Human Capital

Several themes emerged relating to the influence of CHPS on the development of community level human capital. CHPS equips residents with skills and knowledge and serves as an institution where people may become more skilled.

Participants talked a lot about their heightened health-related knowledge since CHPS has been implemented. Health education is an explicit goal of CHPS, so it makes sense that participants identified the spread of health information from the CHN as one of the primary benefits of CHPS. Community members are regularly educated on current or emerging health topics and are encouraged to practice preventative healthy living habits.

“There’s now a free flow of information from the health director down to the community level. The CHO keeps us educated” (F, IDI, Gbanko)

Participants appreciate the ability to be informed about current health issues affecting their communities as well as issues affecting the global community.

“Because the CHPS compound is very close to us, they provide health information on emerging diseases, and on health issues globally...it also gets to us at the community level” (F, FG, Naro).

Dispelling myths was an important aspect of health education according to many community members. Some myths that contribute to social discrimination and isolation have been dispelled, mostly surrounding common causes of sickness. Practices such as female genital mutilation are also discouraged and communities have been educated on the dangers and health risks associated. Discouraging and eliminating these practices that are rooted in traditional culture is a positive outcome of CHPS according to all participants. Communities discussed how health education and attending ANC services have enlightened them on safer birthing practices and the importance of delivering in a health facility. One area relating to human capital that drew more discussion was Traditional Birth Attendants. Some participants talked about the dangers of using traditional birth attendants, however, they do not advocate for the banning of TBAs (see Rishworth et al., 2016) given the inherent challenges with maternal and child health in these contexts. Community members noted the importance of collaborative relationships with TBAs:

“there is a collaborative relationship between CHO and some TBAs as well as CHVs. They are able to go around and identify people who are pregnant and refer people to the CHPS compound for antenatal care. It is a collaborative relationship” (F, FG, Kpazie).

It was not clear if these collaborative relationships exist in most communities; it seems as though TBAs are not involved to a large degree with ANC meetings or services, or birthing processes. Nonetheless, community members, specifically women, are reportedly more knowledgeable about best practices for delivering babies and feel confident in sharing their knowledge with other women.

“I feel more confident to even provide health information to other community members as well” (F, IDI, Dabo).

“in the mother to mother support group we discuss pregnancy and other maternal health issues. We share with each other”

Some health education efforts reportedly influence other opportunities to gain further education and skills. For example, targeting teen pregnancy:

“The CHPS compound and regular talks that are being organized to sensitize young girls on the dangers of teen pregnancy, a lot of them are now able to take precautionary measures against teen pregnancy so they are able to stay in school and go up higher” (F, FG, Gbanko).

In addition to information flowing from the district director of health services, to the CHNs, to the community, participants also reported free flow of information within the community and between communities.

“with the existence of CHPS here, we get to know whatever is happening in the community...and there is flow of information between communities” (M, IDI, Talawonaa).

Another way CHPS seemingly contributes to the community through human capital is that it provides opportunity for community members to become skilled. Most notably, CHVs are able to develop skills through training programs:

“One of the benefits is that most people in the community aren’t educated, but when you are a volunteer (CHV), you go to the district capital for



training and sensitization for certain issues that we can be telling people even if the nurse isn't around...so CHPS has helped to train community members. It helps that we can teach others in the community" (M, IDI, Varimpere).

"they have been giving us training especially for CHVs to be able to talk to community members to be able to keep their surroundings clean, and other things" (M, FG, Dabo).

CHVs' are provided with training where they are educated on health information and learn how to effectively teach others in their communities. In volunteering, they are afforded the knowledge and skills to be educators. Invaluable leadership skills are also developed in the process of becoming and being a CHV. These volunteers are respected and valued, and their leadership skills make them good at uniting their communities for meetings or to address concerns. I observed the leadership skills of CHVs upon first visiting communities in order to arrange interviews and focus groups; CHVs were usually the ones who assisted in recruiting participants and organized the meeting location, setting up benches and the like.

While CHVs are recognized and respected, they don't receive payment for the work they do; this can lead to burnout:

"...once someone does voluntary work, sometimes it is expected that you be compensated in some form to keep them motivated...because while others are working on their farm you are doing other work for free" (M, FG, Varimpere).

CHOs and CHNs are often attending workshops to become more skilled and keep their knowledge up to date. This is good for the nurses and communities in the long run, however, since there is usually only one nurse stationed at the CHPS compound, when they are out of town at workshops, there is no health care professional to tend to the

community members. This was noted many times in focus groups and in-depth interviews.

#### 4.6.3 Economic Capital: Indirect financial savings due to CHPS

The presence and operation of CHPS has seemingly contributed to economic capital in the communities I visited. Two main themes emerged: falling sick less often as a result of CHPS allows for financial savings and increased productivity, and the close proximity of the CHPS compound to communities lessens the financial barrier of accessing health services when people do fall sick.

Residents stated that they are able to access health services more easily since the implementation of CHPS and due to the preventative focus of CHPS, residents reportedly experience better health.

“we don’t spend as much on health services. We are able to stay healthier and keep our resources.” (F, FG, Kpazie).

“If we aren’t falling sick, it means we are able to do more especially work on our farms” (F, FG, Gbanko).

Less sickness and better health increases community members’ capacity for work and thus increases productivity and economic gains.

The close proximity of CHPS compounds to communities has removed some financial barriers to accessing health services:

“the CHPS compound has really helped us because before we had to travel to Jirappa. If you don’t have the money to go that means you can’t have health services” (M, FG, Kpazie).

Participants stated the ability to walk to the compound in a short amount of time has saved them money:

“we are farmers which means we don’t have high income levels, which means when our children or wives are sick, we don’t have to look for money to travel to the hospital. We can walk to the CHPS compound...it is more affordable access” (M, FG, Varimpere).

In addition to saving money by walking rather than paying for travel to the distant hospital, time is saved. Time is a valuable resource in farming communities where time saved means community members can continue to work on their farms, their source of income and livelihood.

“we are able to access the services and get back to doing our farming and household duties” (M, FG, Talawonaa).

“we are easily able to take relatives to the compound and come back home and still have time to work and farm. Before we would spend our whole working day going to the facilities” (M, FG, Dabo).

Family planning emerged as a theme related to economic capital as well, where participants reported they are better able to manage their resources when they can plan and space pregnancies. Participants discussed how access to family planning services improves the health of mothers and their babies and improves their ability to efficiently allocate limited resources.

“With CHPS in the community we have been taught family planning methods. Our babies are healthier than when we would give birth to many children in a short time. Now we can space our children. I am better able to support my children with the limited resources” (F, IDI, Naro).

The spirit of communal labour that has been mentioned previously also benefits community members financially. Both men and women reported helping others in times of need:

“people in the mother to mother support group sometimes help one another in terms of family activities, and sometimes we go to help each other farm, so economically this is helping us” (M, FG, Gbanko).

#### 4.7 Challenges Related to CHPS and Service Delivery

Despite progress that has been made since the implementation of CHPS and the benefits communities report, there are still substantial challenges. Many participants at the community level said if they were to talk about all the challenges we would “be there all day and night”. This thesis will highlight the challenges that were discussed most frequently, starting with electricity followed by human resources, followed by roads and transport.

##### 4.7.1 Irregular Electricity and related challenges

The most discussed problem was the lack of, or irregular nature of electricity experienced in some communities. Issues with electricity pose a barrier to nurse retention. Since the nurses are expected to stay in the communities in which they work, they are provided with a bed and security is arranged within the community to guard the compound in the night. However, the lack of reliable electricity dissuades nurses from staying at the compounds, for example, they prefer to go back to homes where they can charge their mobile phones which are necessary for work-related communication as well as talking to friends or family. When nurses aren't at the compound during the evenings or night, it takes away from the benefits of CHPS as the first point of contact for health care or referrals. Participants noted that if the nurse doesn't stay at the compound, she usually leaves in the early evening in order to travel back to wherever it is she stays. This conflicts with the working schedules of farmers:

“Because there's no lights the nurses don't want to stay. She comes and leaves, comes and leaves” (F, FG, Varimpere).

This is problematic according to the community members since they are usually farming during the day and are able to attend meetings in the evening, however nurse would be leaving to go home at the same time they are returning from the farm.

“by the time we come back from work if we want to go to the compound, the nurse is already gone” (F, FG, Naro).

The DDHS acknowledges the challenges associated with keeping the nurses on the compounds, and says they are working to increase motivation to stay.

Another problem associated with unreliable electricity is the inability to refrigerate vaccinations and drugs at the compound. Participants noted that they receive education on the benefits of vaccinations and are supposed to be able to access them at the compound, but if the electricity is out the vaccines that require refrigeration cannot be kept at the compound, thus creating a barrier to access.

#### 4.7.2 Nurse Burnout

There are similar challenges with human resources; in each community included in this study, there was only one nurse stationed at the CHPS compound. There are several problems associated with this. First, keeping nurses motivated and preventing burn out is a challenge when the nurse is to serve multiple communities on her own. The CHNs and CHOs are responsible for engaging the community in various meetings, providing various organized health services such as ANC, and providing medical care to those who come to the compound on a drop-in basis. Balancing all these responsibilities can be a challenge, particularly if there are multiple drop-ins in a short time. Often times when community members arrive at the compound to seek care, the nurse is preoccupied with other responsibilities.

Nurses are also called to the district capital to complete training in order to stay up to date on information and best practices. Since there is usually only one nurse, this means that when they are away at training, the compound has no nurse for the duration of training (usually a few days). While training is important for nurses and the communities they serve, having no nurse at the CHPS compound for a period of days takes away from the purpose of CHPS. Given the importance of CHOs and CHNs to the CHPS initiative, it is important to prevent worker burn out and to discuss strategies for increasing the number of nurses assigned to a CHPS compound. Empowerment for community nurses by increasing confidence and autonomy during existing training sessions may be part of the solution to burnout, and is suggested to improve performance and enable the nurses to reach their full potential as agents of social change (Kane et al., 2016). The challenges related to nurse burnout are in line with existing literature that suggest professional isolation and perceived lack of access to amenities are detrimental to worker retention in rural areas (Richards, Farmer, & Selvaraj, 2005).

#### 4.7.3 Roads and Transport

Absence of reliable means of transport was a theme in discussions with both community residents and key informants. CHOs and CHNs discussed transport as one of the main challenges in performing their work. In fact, focus group discussions and interviews were postponed in one community because the CHN was unable to travel back to the community from the district capital due to a broken motorcycle which took weeks to repair. The DDHS for Wa West identified transportation as one of the biggest challenge faced in service delivery:

“because the infrastructure is one time, its built, fine- that’s the CHPS compound. But the transport...you have to maintain and fuel the motorbike. Transport services for CHPS is lacking” (F, KI, Wa West).

For community residents, the lack of transport, particularly in times of emergency, has led to the creation of CETS.

#### **4.8 Community-initiated Emergency Transport Services**

There was little existing literature about CETS prior to my arrival in the field. Given the importance of this concept, the aim was to interrogate participants about its origin and questions focused on the logistics and why some communities have been able to initiate and sustain the service, while others have not.

##### **4.8.1 Origin of CETS**

Due to the inadequate national ambulance service as highlighted in the literature review, in emergency situations residents reported that they revert to paying somebody with a vehicle-either with money, livestock, or produce from their farms-to transport them to the hospital where they can access health services. It is not uncommon for the drivers to take advantage of people in a desperate state and demand these types of payment. This is consistent with existing literature (Atuoye, Dixon, Rishworth, Galaa, Boamah & Luginaah, 2015).

Given the level of poverty in the communities, this is not a viable solution. Dabo, a community in the Wa West district, pioneered a more sustainable solution, which is now known as CETS, in 2008. Meetings were taking place in the community with the CHO and JICA/CHPS affiliates as part of CHAP, where the aim was to facilitate discussions

on things the community wanted to improve and to identify activities they would like to see in place. The idea of CETS was informally brought up in these discussions. Participants from Dabo explained that people in their community came up with the idea together because they could not continue on with the current modes of emergency transport. According to community residents, people were giving up their possessions to access emergency health services or simply dying, and they knew they could not rely on the government to provide relief. Community actions, such as starting CETS, are known to emerge from patterns of government failure (Wolch, 1990). Through collaboration with the CHO and others, the community was able to start their emergency transport service.

“Some people came together to organize sensitization on CETS and myself as well as two others were present at the first meeting. We were told how it works and that if we are interested we should let them know...I met with elders in the community and told them about this idea and they bought into it.” (M, KI, Dabo).

The “people” referred to above were community development workers with JICA and/or CHPS as part of the CHAP initiative. Together the community and workers established the logistics of CETS and implemented the program. Once Dabo had CETS running, the CHO, CHPS and/or JICA affiliates along with the community made an effort to spread the word to other communities nearby. Representatives from surrounding communities were informed about CETS and were encouraged to share the information with their communities. They were also invited to come for training and information sessions in Dabo to see how CETS was executed there. Over time, the concept was adopted in some other communities as they began to see the benefits Dabo was experiencing.



“communities around would see what we were doing, talking to people in the hospital, and wonder ‘how is it that these people are able to do this?’, so they also tried to do the same thing.” (F, FG, Dabo).

CETS has since been adopted as a CHPS-endorsed initiative. At regular training, CHOs and CHNs are now encouraged to share the idea with the communities they serve and to encourage initiation or sustainment of the program. All communities that I visited had heard of CETS. Some claimed to have only learned of the program recently while others have known about it for longer.

#### 4.8.2 How does CETS work?

As the literature review states, CETS involves a common fund that community members pay into. The money in the fund is used to transport patients in times of emergency upon referral to the hospital. A driver with a vehicle is pre-arranged as part of the service, and is paid a pre-determined amount using the money in the fund. Community members who have used the fund are to pay back what they “borrowed” later. There is a CETS committee in communities where the program is in operation, consisting of various roles such as treasurer and secretary. Specifics regarding contributions to the fund, driver compensation and committee make-up vary based on community since the program is community-owned.

Depending on what each community collectively decides, contributions into the CETS fund may be made by individuals, families, or defined sections. There does not seem to be one superior contribution structure; contributions differ in the communities in this study with successfully operating CETS. According to key informant interviews with DDHS, CHNs and CHPS officials, this is also true in other communities with successfully operating CETS not included in this study.

### 4.8.3 Trust and Money

Driver compensation is negotiated between the driver and the community or the CETS committee. Since the payment amount is pre-arranged and agreed upon, patients do not have to spend time negotiating at the time the transport is needed. There is no pressure on the patient to be able to present the money at the time either, since the driver(s) knows they will be paid out of the fund promptly.

“because they (drivers) have all agreed on what charges to take, they take you to the hospital even if the money is not ready by then. They know that if they take the person, when they get back they will get that money” (F, FG, Dabo).

In some communities the members were elected, while in others they are appointed. Electing members seems to be more successful as there is a higher level of trust reported, though appointing members based on trust has also been successful. Trust is especially important for the success of CETS according to participants. People want to be confident that any money they contribute to the fund is in fact being used for CETS. The following section will discuss the facilitating factors and barriers to starting and sustaining CETS in the communities where CETS is functioning successfully, where CETS failed, and where CETS had not yet been initiated.

### 4.8.4 Functioning CETS

Dabo in Wa West, and Gbanko in Nadowli have successfully functioning CETS. The program was first implemented in Dabo as mentioned above. Participants in this community credit most of the success of CETS to the CHO, the leader, at the time it was started, and it was important to them to acknowledge her leadership.

“I want to particularly thank the leader for bringing such a wonderful thing, even though we had the idea, it was her that actually lead us.” (F, IDI, Dabo).

“We had the idea originally but it was fine-tuned by some external people. We used to work with the CHO regularly to discuss how the system works even though we were having the idea to help ourselves because of the problem.” (M, FG, Dabo).

Participants said that their community works well together, so once the strong foundation was laid with the assistance of the CHO, they were able to sustain the program after she eventually left the community. Community members had already experienced the benefits of CETS, so they were very keen to continue the operation. In Dabo, a level of trust has reportedly been established where making monetary contributions is not a cause for worry. The process is transparent in that contributions and fund balances are recorded at each meeting. Moreover, if there is a large amount of money it is taken to a bank account, rather than kept in somebody's home.

“when the money becomes much and it is difficult for the money keeper to keep it because of security reasons, we have a bank account we take it to for safe keeping” (FG, F, Dabo).

There is a general consensus that women are trusted more than men among communities, so the treasurer is usually a woman. There is less concern that she may take some of the money and use it for herself as compared to a man. This has afforded women a new skill, since before CETS many women were not familiar with banking. In cases where the women in charge of the money weren't familiar with banking, the CHO or CHN assisted them. This skill building is noteworthy as it develops human capital.

Similarly, participants in Gbanko said the community's ability to cooperate and commit to the cause has allowed for the successful implementation and operation of CETS. A focus on the long term benefits of the service helps keeps residents committed.

Having an “outsider” assisting in the initiation was also reported to be beneficial in communities that had successfully started CETS. An outsider was described as somebody who was not a community member; somebody such as the nurse or a community development worker from an NGO. This is not because they feel the need to be instructed, but because it can be difficult to gather support from enough community members when you are a community member yourself.

When asked what challenges were faced in the adoption phase as well as in sustaining the program, both communities discussed poverty and difficulty in making regular contributions. It was particularly challenging to get a sufficient number of people on board in Dabo in the beginning since people were being asked to take money from their limited resources and invest in a program that had no evidence of succeeding since it was brand new at the time. Maintaining vehicles is an on-going challenge since repairs are required regularly due to the distances travelled in poor road conditions and the age of the vehicles. It is also ideal to have more than one driver in case the designated one is away from the community at the time the service is needed. It is often a challenge to find more than one reliable vehicle to include in the program.

“Sometimes the driver has gone to a different town or village so we have to wait. So we are thinking if we can get our own vehicle that would be better”(M, FG, Dabo).

#### 4.8.5 Failed CETS

Varimpere and Naro had CETS previously operating but failed to sustain the programs. These communities discussed factors that facilitated the start up of CETS originally and reasons why they were not able to sustain the service. Both Varimpere

and Naro expressed intent to restart the service, but no significant strides had been made to do so at the time of interviews and focus group discussions.

Participants in Varimpere identified the nurse as a key facilitator in the start up as she was able to communicate the idea of CETS and gain the community's support for the service.

“Since she is educated, she can say something and throw more light on the issue and then people will understand her better than someone else” (F, FG, Varimpere).

This sense of trust in CHNs was discussed as a facilitator to starting CETS frequently among Varimpere community members. Participants said the CHN was successful at engaging the community in meetings and a lot of people were eager to join. She was also important in keeping the service running:

“the nurse was the secretary and the treasurer. For us, even if we call for a meeting sometimes we have to wait hours upon hours for people to come, but the nurse did very well to mobilize us initially and get people to come together to meet” (M, FG, Varimpere).

However, sustaining the enthusiasm was a challenge:

“Everybody is always eager to join something that is new. But as time goes on, people have a lukewarm attitude. Sometimes you call for a meeting and no one comes” (F, FG, Varimpere).

The participants of Varimpere attributed the programs' failure mostly to the CHN leaving their CHPS zone:

“The nurse was important in settling trust issues, and she's not here now so we're having some problems bringing everyone together” (M, FG, Varimpere).

A new CHN had been stationed in the community at the time of interview and was just settling in. In this community there was an apparent reliance on the CHN with regards to

community relations. Participants reported that they had been less able to self-organize and cooperate without the presence of the nurse. This speaks to the challenge with sustainability of CETS even if it restarts.

The people of Naro also spoke about the absence of their CHN, saying she is away often for training or other reasons. They emphasized the importance of a good relationship with the CHN, and said her absence sometimes strains the relationship. All interviews and discussions highlighted the importance of the nurse's role in their ability or inability to start or sustain CETS, so it is understandable that a strained relationship may act as a barrier. This speaks to the importance of the nurses' ability to mobilize the communities they serve, something that is an expected deliverable by CHPS officials.

Additionally, lack of trust and the idea that funds would be misused was reported to be a significant threat to the initiation and sustainment of CETS in Naro.

“People believed that when they contribute people would misuse the money...mismanagement and the issue of trusting who can actually keep the money” (F, FG, Naro).

Reportedly, few people were contributing when the program was started, and the number decreased over time. Community members still have this concern which has been a challenge in re-starting the program, something the community members told me they intend to do. Another reason for the failure of CETS in Naro is that some members don't see the need for the program.

One male shared that for himself personally, CETS was a good thing because he saw the need for the service and contributed money he used to spend on alcohol to the fund instead. It helped him to see the need to drink less and contribute to a fund that would

help himself and his family, since he had been in a position where a family member would have benefited from the service in the past.

People in Varimpere and Naro expressed a desire to start CETS again. Women in Varimpere had already taken steps to do so, however, they reported that lack of cooperation and support from men has prevented the successful reinstatement of the service:

“We the women alone cannot sustain this thing, and if CETS is going to work, we need the help of the men and men need to be on board. But then one of the issues is that women don't feel like talking or bringing their ideas on board because of the men. Sometimes there are issues where you have a meeting and a woman will come out and give her opinion and you will get back to your house and your husband will beat you” (F, IDI, Varimpere).

In the communities where CETS has failed there seems to be more conflict among residents, particularly between men and women.

#### 4.8.6 No CETS

Talwona and Kpazie had never had CETS in place. Participants in both communities were aware of the concept and recognized a need to initiate the service. Reasons most cited for having no CETS in place were a lack of awareness of the concept previously, poverty and disagreements about contributions to the fund.

Community members of Kpazie said they were introduced to the concept just this year and this is the main reason for not yet having CETS in place. They have attended meetings about starting their own service and communicated the need for the community to work together in order to be successful:

“community has to work together because if the community doesn’t work together I don’t think this noble idea will see the light of day. When we have disagreements or we have no unity among us there is no way we can achieve this CETS” (F, IDI, Kpazie).

Participants repeatedly noted the inability to afford contributions as a barrier to starting the service, however it was also recognized that communities that have been successful in running CETS also experience poverty, and that other factors are more important:

“Money alone cannot solve the issue, but regular meetings to share knowledge and experience will help us get to it, especially getting to meet with people who have it running” (F, FG, Kpazie).

Community members in Talawonaa have been attempting to start CETS but have faced various challenges. Apparently, meetings had been arranged to begin making contributions, however when the time came nobody showed up or took interest. When a meeting finally took place, disagreements about contributions arose and have since prevented the initiation of CETS.

In communities where CETS was not operating, contributions were a point of contention. For example, conflict between men and women in Talawonaa regarding contribution amounts have proven to be the greatest challenge in getting CETS running, with males calling for equal contributions for men and women, and women calling for the men to pay more:

“there was a disagreement between us (women) and the men because the men wanted us to pay 1 cedi but we were insisting that we are overburdened and marginalized and don’t have access to most of the resources in the community so we were wanting to pay 50 pesewas instead, and the men disagree.” (F, FG, Talawonaa)

Collectively, the women felt that because they buy a lot of household items and men don’t, they should contribute less money to the fund. The men felt that equal contributions were necessary for fairness sake and since there are more women in the



community than men. Some participants in other communities without operating CETS said some people just don't want to contribute the money. The nurse in this community informed that this has been an ongoing point of contention with little willingness to compromise thus far. Women have said they may go forward and start their own CETS fund for only women to use, but no plans have been put into action.

Trust issues surrounding contributions was also discussed as a barrier to starting the fund:

“some are not trusting those who will be sending money to the bank because after the money has been taken, they could go behind us and take the money for their own personal uses” (M, FG, Talawonaa).

All in all, tension and conflict exist in the community on various issues and this has impeded their ability to initiate CETS.

**Figure 6: Summary of CETS Profiles**

	<b>Functioning CETS (Dabo &amp; Gbanko)</b>	<b>Failed CETS (Naro &amp; Varimpere)</b>	<b>No CETS (Kpazie &amp; Talawonaa)</b>
<b>Contribution Structure</b>	-50 pesewas/person /month -By household, depending on # and mix of residents (approx. 15 cedis every 2 months)	-amount not disclosed -by section, 50 pesewas/week	-no amount decided on yet -men call for 1 cedi/person for men and women, women call for 50 pesewas for women and 1 cedi for men
<b>Committee</b>	Appointed	Appointed in Naro, Elected in Varimpere	Appointed
<b>Main Facilitators to initiation and/or sustainment</b>	-Leadership -Collaboration and cooperation -Unity -Trust	Leader and mobilizer (CHN)	N/A

Based on these results, it can be suggested that community mobilization is an important factor in the successful initiation and sustainment of CETS. Communities that are able to collaborate and cooperate seem to have more success, while communities that report conflict have experienced difficulties. Moreover, communities that seem to rely on their CHN more for solving community conflict are the ones that have not been successful in sustaining the service. While community mobilization was a component of the implementation of CHPS, it was approached differently in different communities. Some communities may have been subjected to more in-depth and effective mobilization efforts; for example, Dabo was a pilot for community mobilization efforts. This may relate to a community's ability or inability to start and run CETS.

#### **4.9 Chapter Summary**

To summarize, participants in all communities communicated an increased access to health services since the implementation of CHPS. There were many benefits of CHPS discussed, with many being expected given the purpose of CHPS. Benefits reportedly go beyond direct health benefits such as improved health outcomes, to also include apparent increases in social capital by way of social networks, and increases in human capital with opportunities for knowledge exchange and skills development. Economic benefits associated with saving time and money while increasing productivity were also reported. Gender relations was a repeated topic of discussion particularly among women, with some reports of improved relationships between men and women and others expressing a lack of change in traditional norms. The chapter then reviewed CETS, starting with an explanation of the origin of the service in Dabo. The logistics of each CETS program differs given they are community owned and operated, and this

has no known significant impact on whether they are successful or not. Dabo and Gbanko have CETS successfully running and appear to work well as community units, while Varimpere and Naro expressed a need for cooperation and leadership in order to reinstate their programs. Lack of awareness of CETS until recently was identified as the reason for no CETS operating in Kpazie, while disagreements and conflicts were the main barrier in Talawonaa.

## Chapter 5

### **5 DISCUSSION**

#### **5.1 Introduction**

This chapter summarizes the major findings of this thesis, its contributions relating to the study of health system influence on communities and the never-before studied CETS, then ends with areas for future research relevant to the topics. Studies about health in Ghana and the UWR have tended to focus on how health can be improved by increasing physical access to health care. However, recent studies in the region have shown a multitude of factors that influence health beyond health service provision or lack thereof. Social fabric has been degrading as poverty and environmental conditions along with government failure to effectively address problems has lead to alcohol consumption as a coping mechanism, migration, etc, all contributing to poor health. These issues and challenges resulted in the need to examine the potential role of CHPS in community health and sustainability as a way of providing new knowledge regarding untapped community potential.

#### **5.2 Summary of Findings**

##### **5.2.1 CHPS**

Mixed qualitative methods were used to explore community members' understanding of and experience with CHPS and how the initiative operates, and the contribution to the community health and sustainability. Earlier reports noted confusion surrounding the primarily preventative intention of CHPS, with the health facilities being implemented or understood to be more curative than was intended. As a matter of fact, findings suggest that some community members do view the CHPS initiative as a

curative service, although the preventative nature was certainly understood as well. Many benefits of CHPS directly related to health were reported by participants. Becoming sick less frequently, seeking care, more timely cure for acute conditions, and improved access to health services in general were the most frequently cited benefits. Participants also discussed other ways CHPS have impacted their lives personally as well as the community at large, with strengthening of social capital being the most reported. The strengthening of social networks was reported in all focus group discussions, and this is largely due to the physical location of the CHPS compound serving as a community hub where residents interact regularly. The development of community ties not only within but also between communities was also credited to CHPS due to the initiatives whereby residents of the multiple communities served by each compound are required to work together to solve issues related to CHPS. These ties have developed beyond the initial purpose of management of the CHPS compound to meetings regarding other emerging issues relevant to adjacent communities. Reports of increased human capital were associated with health education and skill development opportunities for health volunteers. Residents are educated on a range of relevant health topics by CHNs and CHVs. CHVs are provided with training where they gain the knowledge and skills to be successful educators and leaders in their communities. Community residents including the CHVs benefit from this as education develops human capital. Increased productivity due to better health and less time spent accessing health services is also influencing human capital as residents are more capable to participate in the workforce. Also related to these benefits is the increase in economic capital associated with CHPS. Given the decreased need to spend time or

money accessing health services, residents experience direct savings since they don't need to pay for transportation to the distant hospitals, and productivity increases as well with people being able to spend more time farming. Being sick less often also decreases the need for spending on health care costs. Direct benefits also include improved access to health services, access to family planning services specifically, and health education. The more accessible health services and health education efforts are associated with more timely treatment for acute illnesses and people becoming ill less often. The overall perception for participants was that the presence of CHPS has improved health outcomes. The indirect benefits include development of social, human and economic capitals, with themes relating to social capital being the most prominent.

### 5.2.2 Community-initiated Emergency Transport Services

Mixed qualitative methods were also used in order to uncover information pertaining to CETS and community sustainability. The background to the CETS concept is related to the dysfunctional government ambulance system for transporting health emergency patients to hospitals. This development is in line with Jennifer Wolch's notion of a shadow state (1989, 1990) whereby government failure is leading to the emergence of CETS, facilitated by the presence of CHPS. The main goal was to gain an understanding of CETS programs in terms of how they operate, and what causes some communities to be successful in initiating and sustaining them, and others not. Participants in all communities were aware of CETS either via word of mouth or were informed by their CHO or CHN. Dabo (Wa West) and Gbanko (Nadowli) had successfully running programs, Talawonaa (Nadowli) and Kpazie (Wa West) had never

had CETS functioning, and Varimpere and Naro had started a CETS program that later collapsed.

In the communities where CETS was running or had previously run, specific logistical details varied. As long as there was community consensus, there did not appear to be any superior plan for program logistics such as monetary contribution structures or method of committee selection. Problems arose when there were disagreements in decision making for these types of things; for instance, difference of opinion on contributions between men and women have proved to be the greatest barrier to initiating CETS in Talawonaa. Yet, given the inherent gender dynamics in this context where women are frequently left out of household and financial decision making, one would have expected a consideration where women are asked to pay a little bit less than men. On the other hand, one may argue that in a strive for gender equality, such a consideration should not be made. Results also show that effective leadership is crucial in successfully starting the program; the CHN is usually a good fit given her trusted role in communities. In order to sustain CETS, community cooperation or cohesion is essential.

### **5.3 Theoretical Contributions**

#### **5.3.1 General Contributions of this research**

This thesis was primarily guided by the Capitals Framework and its utility in understanding the contributions of health services to community sustainability in rural areas in a developed context (Farmer et al., 2012). To our knowledge, this framework had not been applied to a developing context prior to this study. In this way, this thesis makes a novel theoretical contribution to knowledge surrounding community health in

Ghana. Importantly, this thesis reveals how the presence of a health facility in rural, resource poor communities can trigger community action and improve social capital. Further, in examining CETS, this thesis illuminates the community-lead response to government inaction around the National Ambulance Service. We do not know of any existing study that examines CETS, so in developing a theoretical understanding of CETS, this thesis makes a new contribution to the area of cohesive communities and their will to take action where the government has not.

### 5.3.2 Primary Care and its influence on health in the UWR

Our findings are consistent with other empirical evidence that suggests association between strong national primary care systems and improved health indicators (Aikins et al., 2013; Lee, Kiyu, Milman & Jimenez, 2007; Macinko, Starfield & Shi, 2003; Starfield & Shi, 2002; Starfield, 1994). In the present case study, even in communities where CETS had failed, attempts were made and they do not seem to have given up on the idea of CETS. Consequently, a well-developed primary health care system can reduce causes of mortalities, lead to better health status, uptake of preventive services, and reduce hospitalization. Primary care usually addresses the most common problems in the community and integrates care where there is more than one health problem, dealing with the context in which illness exists. Health resources are directed at promoting, maintaining, and improving health (Shi, Macinko, Starfield, et al., 2005). Improved health outcomes have been experienced as a result of strengthened primary care in the communities involved in this thesis when compared to the pre-CHPS era. The introduction of more developed primary care in communities has integrated care for common local health problems and placed greater focus on health



promotion. However, some problems have gone unaddressed despite their relevance to health and well-being, a prime example being the absence of adequate emergency vehicles and the lack of political will to address road conditions in the region. While the existence of primary care has made improvements in health, further strengthening the health system is required. Given the multitude of factors contributing to poor health in the UWR, interventions need to act at and across different layers and different levels to make further improvements to community and population health. The presence of primary care facilities in a community alone seems to influence community-lead responses to primary care issues, and contributes to sustainability.

### 5.3.3 Family Planning and the Demographic Dividend

Family planning was not a targeted topic going into data collection, however the theme emerged time and time again while conducting interviews and focus groups. Provision of family planning services is a benefit of CHPS as reported by women and forms part of community health and sustainability in the study communities.

High fertility is associated with poverty and poor health. Therefore, in the context of poverty, family planning is necessary in ensuring the well-being and autonomy of women while also contributing to the health and development of communities (Gribble & Graff, 2010; Joshi & Schultz, 2007); it is recognized as a component of poverty alleviation and sustainable development globally as well. Family planning has the ability to change population dynamics, such that growth rates decline and age structure changes, with a decrease in the number of dependents. When these changes are observed there is opportunity for economic growth at individual and national levels; this

is known as the demographic dividend (Bloom, Canning, Fink & Finlay, 2009; Bloom, Canning & Sevilla, 2003).

### *Demographic Dividend*

Most countries in sub-Saharan Africa, including Ghana and the UWR specifically, have youthful age structures meaning they have a high dependency ratio, with adults having to support a large number of children and young people due to a decline in mortality rates but steadily high fertility rates. This means the number of youth reaching school age and young adults able to work increases every year, so the number of available new jobs should also increase at a high rate to match the growth. The economic resources for education, health care and other social services must also keep pace to provide the same level of services to citizens. Unfortunately, these services and employment opportunities are not readily available in the Ghanaian context currently. Not only are poor families put under financial stress in this situation, but the economy of the entire country is as well.

Given the current age structure, the window of opportunity for the demographic dividend has not yet opened in the UWR or Ghana as a whole. Providing accessible family planning services is an important factor in working towards the window of opportunity by eventually reversing the trajectory of dependency ratios. When parents are able to have fewer children as a result of family planning methods, there are many benefits. In many cases, women are likely to stay out of the workforce in order to care for their growing families (United Nations Economic Commission for Africa, 2013). With fewer children, they are more likely to enter the workforce leading to more economically stable households, higher likelihood of children entering the education system and

subsequently the workforce. Results from this thesis show that some women are already reporting similar benefits after having access to family planning, or recognize the potential to experience these benefits if access to family planning is improved. When the window of opportunity is open, there are more income-generating adults relative to the number of children and young people who depend on them for support; these demographic changes have several economic implications. With a larger labour force, the economy can potentially become more productive. Governments can invest more in human capital, and the incomes and standards of living are more likely to improve for health and educated workers. The economy can benefit from improved productivity and growing capacity to build diversified and knowledge-based industries (Bloom, Canning, Fink & Finlay, 2009; Bloom, Canning & Sevilla, 2003; United Nations Economic Commission for Africa, 2013). Thus, the benefits of providing accessible family planning services extend years into the future. With family planning being a component of CHPS, the UWR and Ghana as a whole has begun working towards a healthier future. Given the challenges in accessing family planning services discussed in the results chapter, there is still a lot of work to be done in order to continue progress towards reaching the time at which the demographic dividend can be achieved.

#### *Working Toward the Demographic Dividend: Policy Determinants*

In order to open the window of opportunity for the dividend, leaders should focus on the policies that improve women's well-being and in turn promote demographic changes. CHPS has made strides in this regard, as evidenced by the reported increase in access to and use of family planning services. Discussions about the services in this study are in line with theory, with women reporting first hand that the ability to space

and plan pregnancies allows them to have fewer children and provide more adequate care to them. While the benefits of providing family planning services are already reported in the study communities, the complete shift in demographics where fertility rates have steadily declined and wide-scale benefits are seen can take some decades (often 30 years) to achieve. Family planning remains a sensitive topic among women in Nadowli and Wa West district due to a lack of consistent male support and the risk of experiencing negative consequences. Women are discouraged from using the services when husbands are unsupportive and violent consequences are not uncommon. It is imperative that more efforts are made to educate males and gain their support so more women use family planning. Taking a rights-based approach to slow population growth where all women are able to use the services without fear of consequence means governments can promote a population age structure that will create prospects for investments and savings over time (Bloom, Canning & Sevilla, 2003).

Promoting girls' education can also contribute to lower fertility rates while also strengthening human and economic capital. Cross-national surveys show that family size decreases as a woman's level of education rises (WHO, 2015; African Union, 2013; Aspen Global Health and Development, 2011). Education is also associated with reduced teen pregnancies, which in turn enables girls to continue in school. School drop outs due to teen pregnancy have long term implications for the young mothers as well as the communities they are a part of (WHO, 2015). Similarly, as people's wealth increases and they have fewer children, they are more likely to invest more in the health and the education of each of their children. Moreover, children with fewer siblings tend to stay in school longer than those with more. It has been shown that families in

communities where family planning services are part of health service delivery experience economic gain and higher educational attainment as compared to those without family planning initiatives (Gribble & Graff, 2010). In the UWR, investments in human capital can go a long way in terms of benefiting individuals and the region as a whole.

Overall, family planning reinforces people's rights to decide on the number and spacing of their children, and enables women in particular to make informed choices about reproductive health and family life (WHO, 2015). Fertility rates do not decline unless people choose to have smaller families and have access to the health services that allow them to achieve this. Family planning and reproductive health services are a critical component of creating the opportunity to achieve the demographic dividend. Women with smaller families are more likely to enter the labour force, contribute to their family's income, and invest in the health and education of their children. Once the opportunity for the demographic dividend arises, an educated workforce will be necessary to take full advantage of the potential economic benefits (Aspen Global Health and Development, 2011)

## **5.4 Capitals attributed to the presence of CHPS**

### **5.4.1 Health as human capital**

In the context of deprivation, human capital may be diminished by few opportunities for economic gain or by being unhealthy since ill people are often unfit to work. In terms of economic growth as it relates to human capital, many studies focus on education as the measure of human capital. In addition to education, health is a kind of

human capital (Taabazuing, Luginaah, Djietror & Otiso, 2012; Bleakley, 2010). Building human capital can lead to health improvement as can be observed in this study, where the presence of CHPS has been associated with strengthening community capacity and leadership in primary care. Emerging from this is the development of human capital to meet health challenges and improve functionality of the community. CHNs are a good example of strengthening leadership in primary care and the associated benefits to community health. CHNs are essential to CHPS, and their importance in the communities they serve goes beyond the provision of health services. They are regarded as community leaders and the relationship between them and residents is cherished in many communities. These nurses are an important resource as a channel for health knowledge and a source of community support. As stated in the results, the nurses often act as a champion for community action, as has been the case with CETS in some communities. This is in line with research from Farmer and Kilpatrick (2009), where rural health professionals are considered to be social entrepreneurs who generate community associations and networking that produces social outcomes. Health and education are also required for developing economic productivity. The importance of human capital in determining the characteristics of economic growth is well documented (Barro, 1991; Barro & Lee, 1996; Benhabib & Spiegel, 1994; Mankiw, Romer, & Weil, 1992; Romer, 1990; Sachs & Warner, 1997; Van Zon & Muysken, 2001). Greater health is associated with education in that school absences due to illness are decreased, and being healthy is correlated with success in school. Higher levels of educational attainment are also associated with improved health, where educated people are more able and likely to earn a higher income and have access to

resources to stay healthy. Several studies show a strong link between health human capital and labour productivity. Schultz and Tansel (1993) demonstrate the connection between the stock of health human capital and labour productivity in Cote d'Ivoire and Ghana. In Cote d'Ivoire, evidence shows that men who are likely to lose a day per month due to health issues earn 19% less than healthier men (Schultz & Tansel, 1993). This thesis adds to the existing literature, with results indicating an increased capacity for work due to improved health status. Health is a prerequisite for economic development in the local community context as well as globally.

A settings approach to promote health, for instance a focus on the community setting, aims to address the determinants of health and build the capacity of individuals, families, and communities to develop human and social capitals. The concept of human and social capitals can be used to explain why certain communities are less able to achieve better health than other communities with similar demography and why some communities are prosperous and healthy, while other communities are not (Lee et al., 2007). Social capital may influence health behaviours by promoting more timely diffusion of health information, increasing the probability that healthy behavior and norms are adopted, and discouraging deviant health-related behavior through norms (Kawachi et al., 1999; Lee et al., 2007). Innovative behaviors diffuse more quickly in communities that are cohesive where trust is present between members.

#### 5.4.2 Social capital

Memberships in informal groups, associations and networks are often used as a measure of social capital, and are also means through which solidarity is often expressed (Narayan & Cassidy, 2001). These types of social interactions are

particularly important in lower or middle income countries where they may be essential in terms of achieving progress on a variety of issues (Sorensen 2000). High voluntary association membership is linked to high social capital. In Ghana, low voluntary association is reported according to the Afrobarometer surveys (2005, 2012), except for religion which most say they are a part of. The surveys reveal a consistent trend in the pattern of voluntary association membership where an average of 70% of respondents affirmed non-membership of 39 trade unions/farmer associations, community development associations, professional/business associations and other voluntary groups. This highlights the importance of findings in this thesis where CHPS is seen to increase informal participation in communities and encourages social relations and volunteerism, in a context where voluntary association membership has been reportedly low. The positive influence of CHPS on communities in this way makes an important contribution to community health and sustainability in the region.

Social capital influences health service usage in that social supports and trust are determinants of health service usage and outcome (LeBan, 2011). Finding that health services can also build social capital highlights the importance of CHPS as a social capital-developing initiative, where benefits will be reaped in the form of usage and outcomes. An effective health system contributes to a well-functioning community, and a well-functioning community underpins and supports an effective health system. In the poverty of the UWR, the implementation and presence of the new and improved health initiative has influenced community sustainability, which in turn strengthens CHPS and the health system in general. For Ghana's voluntary National Health Insurance Scheme, social capital within communities has been identified as a determinant of willingness to



enrol and pay (Akuoko, 2014). These findings are in line with the theory of how rural health services contribute to sustainability in developed contexts (Australia and Scotland) (Prior, Farmer, Godden, & Taylor, 2010; Farmer, Prior, & Taylor, 2012).

Based on the findings, it seems that the provision of CHPS in the local communities is a win-win situation. This also means that further improvements to CHPS will have significant health care benefits to local communities. A cohesive community holds valuable human and local resources that can benefit the government health system, for instance, when residents are more willing to volunteer for the greater good of the community. This is especially important when there are limited health resources for allocation by the government. A balance needs to be achieved though, where the government health system strives to provide solutions to challenges as well such that community members are not left to cope with systematic challenges on their own. Since mistrust in government is damaging to the capitals, the consequence of leaving communities to solve problems without assistance or support is detrimental to the effectiveness of the health system as well (since the capitals feed back into the system).

Community social capital has been linked to a variety of community health status variables through different mechanisms such as reducing or buffering stress, coaching and urging of healthful practices, providing information to expand one's knowledge base about health and increasing responsibility for the well-being of others (Folland, 2007, LeBan, 2011). This holds true in the study communities. For instance, bereavement support and helping on one another's farms in times of need act as stress buffers. Informal sharing of health knowledge and passing along best practices that have worked (particularly among women regarding babies), and the fact that residents want

to share this knowledge with others speaks to the level of social capital present as a result of CHPS.

### *Togetherness*

The Core Welfare Indicators survey indicates little tension/disagreement or communal violence in Ghanaian society. This is consistent with Ghana's historic tradition of peaceful co-existence among diverse groups and is a positive indicator of social capital. Togetherness can also be discussed as solidarity. Community action observes local solidarity in the way the community members act in times of challenge advance themselves and create solutions to community problems (Wilkinson, 1991). Solidarity is necessary in doing so, and the absence of solidarity can damage community cohesion.

### *Government and Social Capital*

An indication of the quality of government is the extent to which people perceive that they could influence their representatives in making changes in rules, policies and laws that affect their lives. It is clear that in the study communities, residents do not feel they can rely on the government to provide solutions to problems effecting their lives. This was most evident in reasons for starting CETS, when some participants explicitly stated they needed to take the matter into their own hands as they could not rely on the government. Communication channels between people and their elected representatives are not satisfactory. Social capital can be damaged when trust in others or the government is compromised, for instance, if the government fails to keep promises or neglects communities, or if residents experience high rates of crime among

their areas (Taabazuing, Luginaah, Djietror & Otiso, 2012; Bleakley, 2010). Perceptions of corruption are an indicator of the richness of a society's social capital, and the level of institutional policing (transaction costs) that is required to ensure the success of collective endeavours. Most respondents in a study in Ghana perceived pervasive corruption among public officials in Ghana with perceived corruption worsening between 2005 and 2012. As much as 90%, 94%, 86% and 92% of respondents in 2012 thought there was some level of corruption among judges, the police, local government officials and national government officials respectively. While CHPS is helping to develop social capital, these levels of mistrust in government may be harmful and further degrade social fabric if not addressed. There is a pattern of the government relying on community volunteerism and resources to make improvements rather than taking on the tasks. While community ownership is important, offloading responsibility to communities instead of the government taking action is not beneficial.

#### 5.4.3 Economic Gains

The influence of CHPS on economic capital in the developing context of the UWR is evident in the results where resources can be reserved and spent more efficiently. The discussions surrounding human and social capital touch on economic gains as well, underscoring the inextricable links between the capitals. CHPS directly influences individuals' economic stock since residents are not required to take a day away from their source of livelihood in order to access health services due to the closer proximity of the compound as compared to before the CHPS era. Time saved in this way allows for more time spent working. Productivity also increases when residents are sick less often due to the preventative services and more timely access to curative

services. Developments made to human capital are also linked to economic gains, given the links between education, health and wealth previously discussed, particularly when considering health as human capital. Development of social capital associated with CHPS also influences economic gains since communities work together for the greater good and assist one another in times of need, for instance on the farm.

**Figure 7: Contribution of CHPS to Community Sustainability through the Capitals**

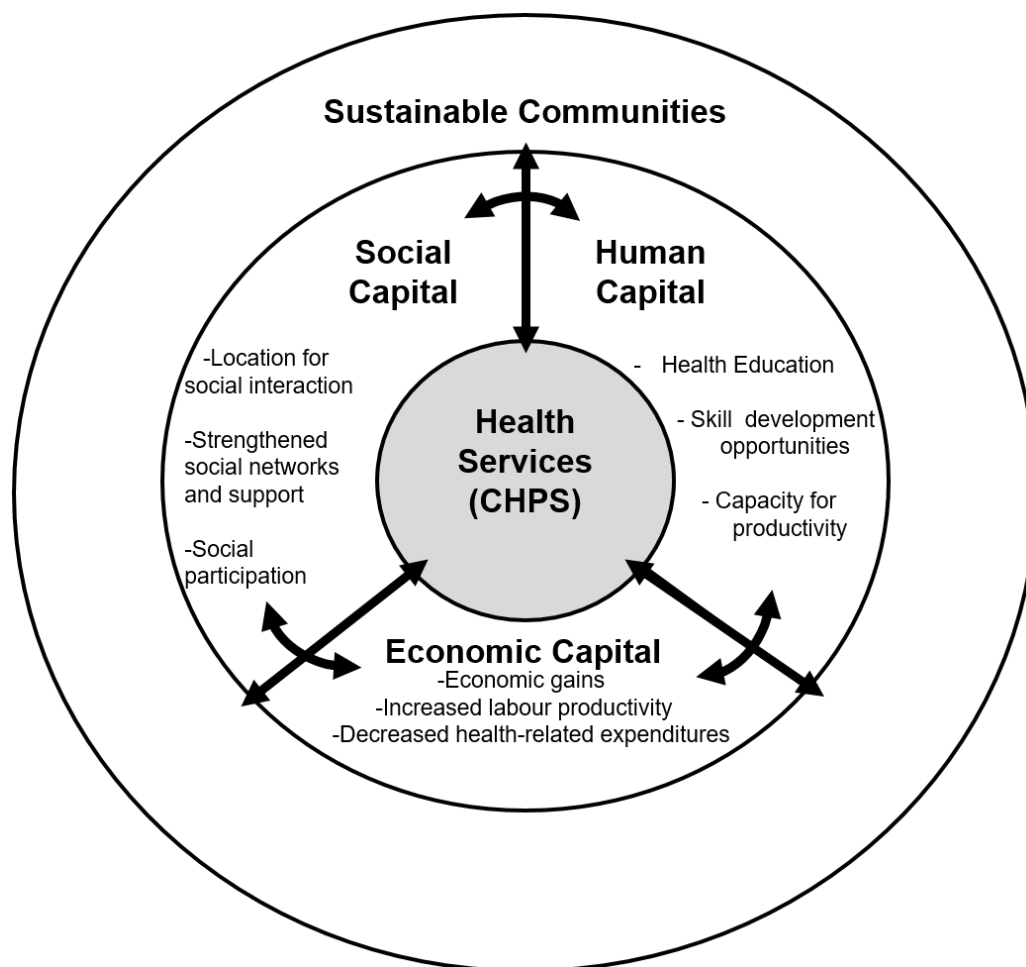


Figure 7 summarizes the findings related to the contribution of CHPS to community sustainability in the UWR. The interconnected relationship between CHPS, the capitals, and sustainable communities is illustrated, where CHPS is suggested to contribute to

human capital, social capital, and economic capital which underpin sustainable communities, while sustainable communities and the presence of the capitals also support and strengthen the health services.

### **5.5 Community-initiated Emergency Transport Services: Success or Failure?**

Social and organizational diffusion are important in understanding CETS given its community-initiated basis, and that adoption has spread mainly due to diffusion (Mintrom, 1997). Community field theory, as discussed in the literature review, can explain why or why not members in a particular environment mobilize available resources and use social dynamics to undertake developmental projects to advance themselves. Based on results from this thesis, the community in which CETS originated (Dabo) was very able to mobilize resources and participate in community action. Upon examination, explanation of why some communities are more able than others seems to relate to community mobilization efforts put in place by CHPS. One intended goal of the CHPS initiative is to mobilize and empower communities. While not an explicit milestone in the CHPS implementation list, it is included as an important step to be initiated during community entry. Community entry takes place at the zone level where community meetings, or durbars, are held to involve community residents and encourage participation in the program. As noted earlier, there have been inconsistencies in the implementation process of CHPS, with entry and phases differing from community to community. Details regarding implementation efforts reveal that some communities were involved with thorough efforts targeting community mobilization at the time of CHPS implementation while others were not. Other factors such as closeness and

accessibility to a hospital and main road and the condition of the main road are also relevant considerations.

Dabo was the “model” community for the pilot project for CHPS and community mobilization was a specific focus in the community. Workers from CHPS and JICA were stationed in the community for four months to introduce CHPS and to mobilize the community. These efforts may have influenced the community’s action and participation. Residents of Dabo work well together and demonstrate high stocks of social and human capital. Dabo also has a market nearby which allows people to sell goods without having to travel the long distance to Wa Municipal that many other communities do. While this could be thought to reduce the need for emergency transport services and thus the likelihood of initiating CETS, the strong community dynamics and eagerness to advance themselves seems to outweigh this explanation. The results show that the residents credit much of their success with CETS and as a community in general to the initial efforts of CHPS workers and their community mobilization efforts.

On the other hand, the introductory phase of CHPS in Varimpere lasted two months with nobody stationed in the community. The community was introduced to CHPS with a focus more on communal labour and building the compound first, as opposed to a focus on community entry in the sense of mobilization. Not to say that no efforts have since been made to mobilize community members on matters relating to health, but it was not a key focus when CHPS was implemented. This offers explanation for why the community was unable to sustain their CETS program when the CHN, who was the community leader, left. They are less able to self-mobilize and stated the need

for a strong CHN in order to re-start the program. Varimpere is relatively close to Wa and the hospital, so this could also explain the potential lack of need or urgency in re-starting the CETS program, although this was not identified as a reason by community residents.

Gbanko has a Chief who is involved with community development efforts and have initiated programs in the community as well as contributed to CHPS infrastructure. Additionally, there is a district assembly member who is focused on mobilization in the community. The presence of these figures who are highly regarded appears to make an important contribution to the community dynamic. Gbanko is close the main road which is paved, and the CHPS compound is right off the main road. Access to roads in good condition are beneficial to rural communities in the region. The nearest health facility is approximately 7 km away; given the road conditions and distance, the health facility is more accessible than to some other communities. Still, the community demonstrates high level of sustainability with well-functioning CETS. In its favour is that the Gbanko CHPS compound serves two communities in its catchment whereas others serve 6, and the community has the smallest population of the six study communities. A smaller community may be easier to mobilize, and compound resources are not spread as thinly.

Kpazie is situated far away from the road and is particularly geographically disadvantaged, so CETS would seemingly be of great assistance to the community. The most viable explanation for the community not having started CETS is that they reportedly only became aware of the service this year. Results show that the community

have plans in motion to begin meetings to start CETS, and participants recognized the importance of cooperation and commitment in order to do so.

Talawonaa is the furthest away from a health facility, with the nearest one being in Wa some 24km away. This would appear to create a greater need for CETS, yet the community does not have the program in operation. At the time of study, the CHN was not able to be at the CHPS compound due to mechanical problems with the motorbike provided by the government as means of transport for her to travel for work. This, combined with the far distance away from town or other health facilities means the community had not been receiving the same level of community engagement as others. The community also reportedly has a larger new comer population and tend to look up to Wala (the local ethnic group) for direction, meaning they may be less apt to self-mobilize to take action.

Naro is the largest community, which presumably makes it more challenging to mobilize. The nurse was not staying there all the time and there were reported tensions between some residents and the nurse, which could also contribute to the explanation as to why there is no CETS in operation. It has also been reported that when CHPS was implemented in the community, the mobilization efforts were not a key focus, though this has not been verified.

CHPS has the ability to mobilize, but mobilization wasn't always the key focus during implementation. If there was less focus on community mobilization, there is a slower rise to community sustainability and action. CETS can be viewed as representing a higher level of sustainability. Volunteers are trained to promote community health mobilization; however, this depends on the community. It was difficult to track the extent



of training in each community and how prevalent mobilization efforts are given that volunteers change over the years. CHAP (Community Health Action Plan) is a relatively new component of CHPS that specifically aims to encourage community participation in the health system through mobilization. This could improve community sustainability in all communities, particularly those that missed out on targeted community mobilization during the implementation of CHPS.

**Figure 8: CETS Adoption**

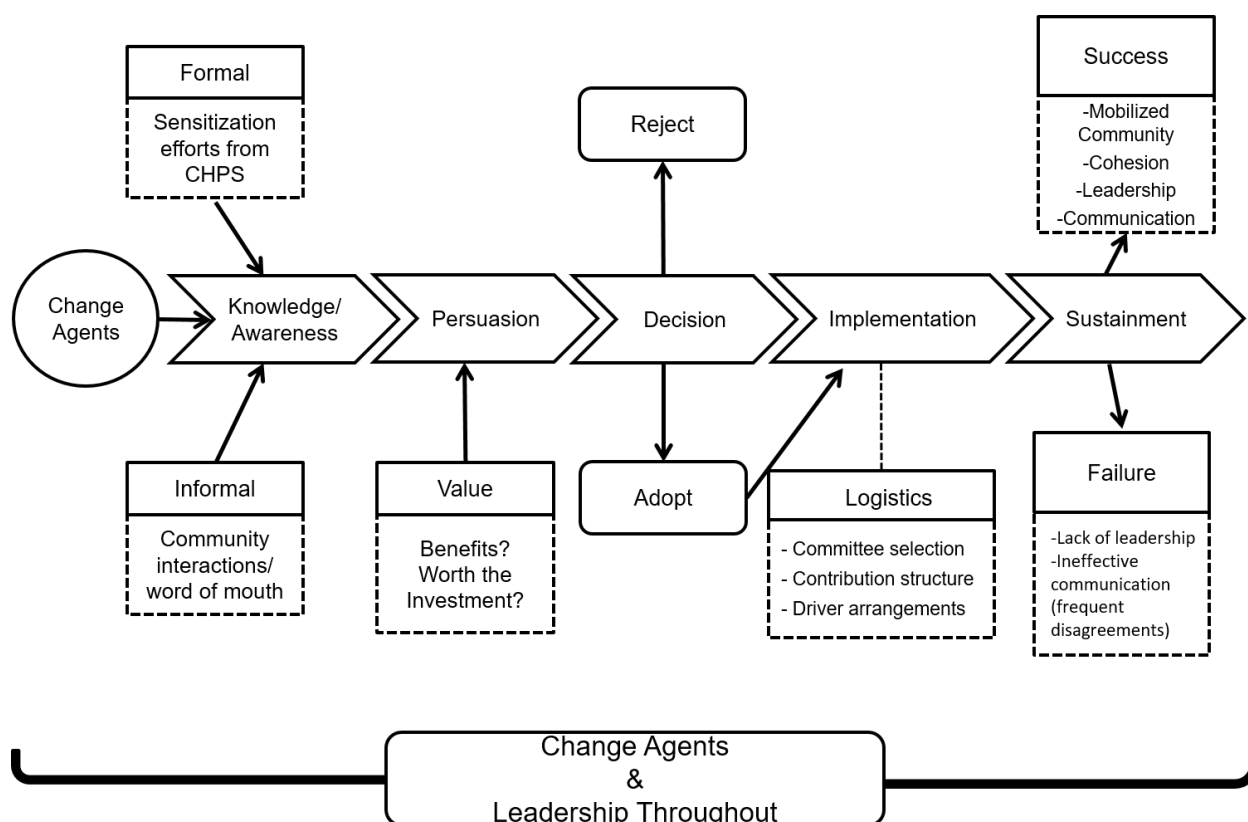


Figure 8 illustrates the process of CETS adoption and sustainment as reported in this thesis. Change agents such as nurses or community leaders first introduce the community to the notion of CETS creating awareness. If the benefits are communicated and are believed to outweigh any costs, then the community decides to adopt CETS.

There were no reports of communities rejecting the idea all together. Implementation follows where communities decide on logistics; this is where some communities stay for some time, particularly if disagreements occur (disagreements on contribution structure in Talawonaa, for instance). Communities tend to sustain the service over time if they are mobilized, demonstrate cohesion and leadership, and effectively communicate. Collapse of CETS is associated with lack of clear leadership and ineffective communication. Change agents and strong leadership are important throughout the process.

### **5.6 Recommendations**

Many of the health sector objectives of the HSMTDP for 2014-2017 that are outlined in the GHS Annual Report (2014) would further improve community sustainability based on this study. Bridging equity gaps in geographical access to health services, ensuring sustainable financing for health care delivery, and improving the quality of health service delivery are all objectives (GHS, 2014). In order to satisfy these, the most obvious solutions are to improve road conditions and emergency transport services, and improve human resource allocation. Since referral to specialized or emergency care is an important component of CHPS, it would be useful to have roads and vehicle services conducive to travelling to the next point of contact. Given that one CHPS compound often serves many communities, it is recommended that at least two CHNs be stationed at a compound. Given that health human resource distribution is inequitable with some areas having more nurses than necessary while others do not have enough, a redistribution of nurses would be a feasible solution. This would allow for better service provision, increased ability to effectively mobilize

community members, and would alleviate nurse burnout to some degree. Since perceived access to amenities is important in rural health worker retention, efforts to further improve the nurse's rural living quarters would be beneficial as well, though the challenges in doing so are understood.

### **5.7 Limitations**

No more than two districts were included due to feasibility. Similarly, the districts included are relatively close to one another geographically for feasibility reasons. With a motorcycle as my means of transport in the region during rainy season, it was not feasible to travel to and from communities in districts that were over two hours away from my place of residence, as I needed to get there in back in the same day.

There are various NGOs operating in the region. JICA has worked directly with CHPS, so their efforts were taken into account in this thesis. Including others was beyond the scope of this thesis, but may have added additional information that may help to understand the study objectives. Moreover, it can not be ruled out that some benefits associated with CHPS may also be associated with NGOs work in communities.

Specific community profiles were difficult to create due to lack of information. Detailed profiles would have been helpful in interpreting results related to CETS and community dynamics, particularly in those communities where disagreements were observed.

### **5.8 Directions for Future Research**

Moving forward, literature related to CHPS and community sustainability in the UWR could benefit from a more long-term research project where outcomes may be

tracked over time in relation to the status of CHPS policy. For instance, since the future of funding for CHPS is not currently certain, it would be interesting to track changes in the CHPS initiative (improvements or cut backs), and how if the benefits of CHPS reported in this study change over time. It would also be interesting to look at how the reported benefits change if the status of CHPS stays as it is now. For instance, will people remain involved in participatory action, or will this slow?

Given the importance of family planning and the barriers to access reported in this study, future research may focus on appropriate ways to target men in order to increase support for and use of family planning methods. Consultations should be held with men and women separately to identify to what extent women would like men to be involved, and how this can be achieved.

Mixed qualitative methods were appropriate for this thesis. However, quantitative methods could be useful for gathering or analyzing statistics for comparing specifics such as income per capita, number of days taken off school or work, number of social ties etc. in accordance with the capitals framework (Farmer et al., 2012).

One of the limitations of this study was that the various NGOs in the study location could not be included. In the future, considering these NGOs to examine what kind of contributions they make to the communities they serve as well as surrounding communities may add to the understanding of community health and sustainability in the region, particularly since there are some mixed views on NGOs in the region where some people believe they are more beneficial than others.

## **5.9 Conclusion**

This chapter revisited the main findings of the study by presenting a summary of findings including direct and indirect benefits of CHPS and reported reasons for success or failure in CETS adoption. The interconnected nature of the determinants of health are highlighted in this thesis. We see that health service provision in a rural developing context seemingly contributes to community health directly through increased access to health care, and also to the functionality of communities through value added contributions. Health services have the ability to influence communities and individuals in many aspects of their lives, all of which contribute to health and well-being. From social life, to education and finances, CHPS influences people and their health. This study adds to the body of literature evidencing the need for inclusion of cross-sectional, interdisciplinary policy initiatives, with road conditions and access to emergency vehicles posing as a significant barrier to improving health in the region, education etc. With social degradation in the UWR negatively impacting health, looking at how health services help to re-develop social fabric makes an important contribution to the study of community health. CHPS is a beneficial health initiative resulting in healthier communities with higher levels of social, human and economic capital, however inconsistencies between communities can be explained by challenges to implementation. Attention should be paid to how the initiative or others are introduced and implemented in future.

## References

- Abel-Smith, B., & Rawal, P. (1992). Can the poor afford 'free' health services? A case study of tanzania. *Health Policy and Planning*, 7(4), 329-341. doi:10.1093/heapol/7.4.329.
- Adjasi, C., & Osei, K. (2007). Poverty Profile and Correlates of Poverty in Ghana. *International Journal of Social Economics*, 34(7), 449-471.
- Adomah-Afari, A. (2015). The contribution of community leadership upon the performance of mutual health organisations in Ghana. *Journal of Health Organization and Management*, 29(7), pp. 822–839. doi: 10.1108/jhom-11-2013-0260.  
<http://www.emeraldinsight.com/doi/pdfplus/10.1108/JHOM-11-2013-0260>
- African Union. (2013). Family Planning and the Demographic Dividend in Africa. *Policy Brief*. Available at: [http://www.who.int/pmnch/media/events/2013/au\\_policy\\_brief\\_family.pdf](http://www.who.int/pmnch/media/events/2013/au_policy_brief_family.pdf).
- Aikins, M., Laar, A., Nonvignon, J., Sackey, S., Ikeda, T., Woode, G., ... & Nyonator, F. (2013). Evaluation of facilitative supervision visits in primary health care service delivery in Northern Ghana. *BMC health services research*, 13(1), 1. doi: 10.1186/1472-6963-13-358
- Akuoko, K. A. (2014). Social Capital and Ghana's National Health Insurance Scheme: Understanding Informal Sector Participation. Retrieved from <http://lup.lub.lu.se/student-papers/record/4500285>
- Aryeetey, E., Owusu, G., & Mensah, E. J. (2009). An analysis of poverty and regional inequalities in Ghana. *Global Development Network (GDN) Working Paper Series*, (27).
- ASIRT. (2014). Road Travel Report. Rockville, MD. Retrieved from: <http://www.asirt.org/portals/0/Reports/Ghana.pdf>
- Aspen Global Health and Development. (2011). Family Planning Promotes the Demographic Dividend. Global Leaders Council for Reproductive Health. <https://www.ciaonet.org/attachments/20645/uploads>
- Atim, C. (1999). Social movements and health insurance: a critical evaluation of voluntary, non-profit insurance schemes with case studies from Ghana and Cameroon. *Social Science & Medicine*, Vol. 48 No. 7, pp. 881-896.
- Atuoye, K. N., Dixon, J., Rishworth, A., Galaa, S. Z., Boamah, S. A., & Luginaah, I. (2015). Can she make it? Transportation barriers to accessing maternal and child health care services in rural Ghana. *BMC health services research*, 15(1), 333.
- Baxter, J. (2010) Case Studies in Qualitative Research (Ch5) in Hay, I. *Qualitative Research Methods in Human Geography*, 3rd Edition, New York: Oxford University Press.
- Baxter, J., & Eyles, J. (1997). Evaluating qualitative research in social geography:

Establishing 'rigour' in interview analysis. *Transactions of the Institute of British Geographers*, 22(4), pp. 505-525.

- Baxter, J. and Eyles, J. (1999) The Utility of In-Depth Interviews for Studying the Meaning of Environmental Risk, *Professional Geographer* 51(2): 307-20.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13(4), 544-559.
- Bebbington, A. (1999). Capitals and capabilities: A framework for analysing peasant viability, rural livelihoods and poverty in the Andes. IIED.
- Becker, G. S. (1964). Human capital. New York: Columbia University Press.
- Berg, B. L. (2004). *Methods for the social sciences*. (n.p.): Pearson.
- Bleakley, H. (2010). Health, human capital, and development. *Annual review of economics*, 2, 283. Doi: 10.1146/annurev.economics.102308.124436
- Bloom, D. E., Canning, D., Fink, G., & Finlay, J. E. (2009). Fertility, female labor force participation, and the demographic dividend. *Journal of Economic Growth*, 14(2), 79-101.
- Bloom, D., Canning, D., & Sevilla, J. (2003). *The demographic dividend: A new perspective on the economic consequences of population change*. California: Rand Corporation.
- Bradshaw, M. B., & Stratford, E. (2010). *Qualitative research design and rigour*. I. Hay (Ed.). (n.p.).
- Brewer, J., & Hunter, A. (1989). *Multimethod research: A synthesis of styles*. Sage Publications, Inc.
- Buor, D. (2005). Determinants of utilisation of health services by women in rural and urban areas in Ghana. *GeoJournal*, 61(1), 89-102.
- Buonanno, P., Montolio, D., & Vanin, P. (2009). Does social capital reduce crime? *Journal of Law and Economics*, 52(1), 145-170.
- Burchardt, T. (2008). *Social capital defined*. Oxford: Oxford University Press.
- Bourdieu, P. (1983). The forms of capital (Okonomisches Kapital, kulturalles Kapital, soziales Kapital). In R. Kreckel (Ed.), *Soziale Ungleichheiten* (pp. 183e198). Soziale Welt, Sonderheft.
- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241e258). Westport, CT: Greenwood Press.
- Castree, N., Rogers, A., & Kitchen, R. (2013). Health geography In *A dictionary of human geography* (1<sup>st</sup> ed.). Oxford: Oxford University Press.

- Cocklin, C., & Alston, M. (Eds.), (2003). *Community sustainability in rural Australia: A question of capital?* (1st ed.). Wagga Wagga, Australia: Centre for Rural Social Research.
- Cocklin, C., & Dibden, J. (Eds.), (2005). *Sustainability and change in rural Australia* (1st ed.). Australia: University of New South Wales Press Ltd.
- Cogneau, D., & Guénard, C. (2003). *Colonization, Institutions, and Inequality, A note on some suggestive evidence.*
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, s95es120.
- Colletta, N. J., & Cullen, M. L. (2000). *Violent conflict and the transformation of social capital: Lessons from Cambodia, Rwanda, Guatemala, and Somalia.* Washington, DC: The World Bank. Retrieved from <http://documents.worldbank.org/curated/en/799651468760532921/Violent-conflict-and-the-transformation-of-social-capital-lessons-from-Cambodia-Rwanda-Guatemala-and-Somalia>
- Conradson, D. (2005). Focus groups. In Flowerdew & Martin (Eds.) *Methods in human geography* (pp. 129-140). (n.p.): Prentice Hall.
- Cooke, E. F. A., Hague, S., & McKay, A. (2016). *The Ghana Inequality and Poverty Analysis: Using the Ghana Living Standards Survey.* mimeo.
- Copus, A. K., & Crabtree, J. R. (1996). Indicators of socio-economic sustainability: an application to remote rural Scotland. *Journal of Rural Studies*, 12(1), 41e54.
- Countryside Agency. (2001). *Rural services in 2000* (1st ed.). London: The Countryside Agency.
- Cummins, S., Curtis, S., Diez-Roux, A. V., & Macintyre, S. (2007). Understanding and representing 'place' in health research: a relational approach. *Social science & medicine*, 65(9), 1825-1838.
- Delamater, P. L., Messina, J. P., Shortridge, A. M., & Grady, S. C. (2012). Measuring geographic access to health care: Raster and network-based methods. *International journal of health geographics*, 11(1), 1.
- Denzin, N.K. (1998), "The art and politics of interpretation", in Denzin, N. and Lincoln, Y. (Eds), *Collecting and Interpreting Qualitative Materials*, Sage Publications Ltd, London.
- Denzin, N. K., & Lincoln, Y. S. (2005). *The SAGE handbook of qualitative research* (3rd ed.). Thousand Oaks: Sage Publications.
- Dibden, J., & Cocklin, C. (2003). Tarra, Victoria. In C. Cocklin, & M. Alston (Eds.),



Community sustainability in rural Australia: A question of capital? (1st ed.). (pp. 170e201) Wagga Wagga, New South Wales: Academy of the Social Sciences in Australia.

Dickson, K. B. (1975). Development planning and national integration in Ghana. *The Search for National Integration in Africa*, eds. DR Smock and K. Bentsi-Enchill (New York: The Free Press, 1975), 100-116.

Dixon, J., & Mkandawire, P. (2015). The place of “health” in social health insurance in developing countries: A study in Ghana’s Upper West Region. In I. Luginaah & R.B. Kerr (Eds.). *Geographies of health and development*. (p.p. 75-92). New York, NY: Routledge.

Doeksen, G. A., & Schott, V. (2003). Economic importance of the health-care sector in a rural economy. *Rural & Remote Health*, 3(1), 135.

Dummer, T. J. (2008). Health geography: supporting public health policy and planning. *Canadian Medical Association Journal*, 178(9), 1177-1180.

Dyck, I. (1999). Using Qualitative Methods in Medical Geography: Deconstructive Moments in Subdiscipline? *The Professional Geographer*, 52 (2), 243-253.

Dyck, I., & Kearns, R. (1995). Transforming the relations of research: towards culturally safe geographies of health and healing. *Health & Place*, 1(3), 137-147.

Elliot, S. (1999). And the Question Shall Determine the Method. *The Professional Geographer*, 51 (2) 240-243.

England, K. V. (1994). Getting personal: Reflexivity, positionality, and feminist research. *The Professional Geographer*, 46(1), 80-89.

Ensor, T., & Cooper, S. (2004). Overcoming barriers to health service access: influencing the demand side. *Health policy and planning*, 19(2), 69-79.

Eyles, J. (1985). *Sense of Place*. Warrington: Silverbrook Press.

Farmer, J., & Kilpatrick, S. (2009). Are rural health professionals also social entrepreneurs?. *Social science & medicine*, 69(11), 1651-1658.

Farmer, J., Prior, M., & Taylor, J. (2012). A theory of how rural health services contribute to community sustainability. *Social Science & Medicine*, 75(10), 1903-1911.

Fey, S., Bregendahl, C., & Flora, C. (2007). The measurement of community capitals through research. <http://www.ojrrp.org/issues/2006/01/index.html> Accessed 10.04.07.

Folland, S. (2007). Does “community social capital” contribute to population health?. *Social Science & Medicine*, 64(11), 2342-2354.

- Ganle, J. K., Obeng, B., Segbefia, A. Y., Mwinyuri, V., Yeboah, J. Y., & Baatiema, L. (2015). How intra-familial decision-making affects women's access to, and use of maternal healthcare services in Ghana: a qualitative study. *BMC Pregnancy & Childbirth*, 15(1), 1.
- Ghana Health Service. 2002. The community-based health planning and services (chps) initiative: A programme for bringing services closer to the clients. Retrieved from <http://www.ghanahealthservice.org/downloads/ServicestoClients.pdf>
- Ghana Health Service. (2011). Ghana Health Services 2011 Annual Report. Retrieved from: [http://www.ghanahealthservice.org/includes/upload/publications/GHS\\_2010\\_Annal%20Report\\_Final.pdf](http://www.ghanahealthservice.org/includes/upload/publications/GHS_2010_Annal%20Report_Final.pdf)
- Ghana Health Service. (2015). Ghana health service 2014 annual report. Retrieved from [http://www.ghanahealthservice.org/downloads/Ghana\\_Health\\_Service\\_2014\\_Annual\\_Report.pdf](http://www.ghanahealthservice.org/downloads/Ghana_Health_Service_2014_Annual_Report.pdf)
- Ghana Statistical Service. (2010). Population by region, district, locality of residence, age groups and sex, 2010. Retrieved from [http://www.statsghana.gov.gh/docfiles/population\\_by\\_region\\_district\\_locality\\_of\\_residence\\_age\\_groups\\_and\\_sex,\\_2010.pdf](http://www.statsghana.gov.gh/docfiles/population_by_region_district_locality_of_residence_age_groups_and_sex,_2010.pdf)
- Ghana Statistical Service. (2012). 2010 Population and housing census summary results of final report. Retrieved from [http://www.statsghana.gov.gh/docfiles/2010phc/Census2010\\_Summary\\_report\\_of\\_final\\_results.pdf](http://www.statsghana.gov.gh/docfiles/2010phc/Census2010_Summary_report_of_final_results.pdf)
- Ghana Statistical Service. (2014). GLSS6 main report. Retrieved from [http://www.statsghana.gov.gh/docfiles/glss6/GLSS6\\_Main%20Report.pdf](http://www.statsghana.gov.gh/docfiles/glss6/GLSS6_Main%20Report.pdf)
- Ghana Statistical Service. (2016). The Ghana poverty and inequality report. Retrieved from [https://www.unicef.org/ghana/Ghana\\_Poverty\\_and\\_Inequality\\_Analysis\\_FINAL\\_Match\\_2016\(1\).pdf](https://www.unicef.org/ghana/Ghana_Poverty_and_Inequality_Analysis_FINAL_Match_2016(1).pdf)
- Ghana Statistical Service, G., & Macro, I. C. F. (2009). Ghana demographic and health survey 2008. *Accra, Ghana: Ghana Statistical Service, Ghana Health Service, and ICF Macro.*
- Giacomini, M. K., Cook, D. J., & Evidence-Based Medicine Working Group. (2000). Users' guides to the medical literature: XXIII. Qualitative research in health care A. Are the results of the study valid?. *Jama*, 284(3), 357-362.
- Glaser, BG., & Strauss, AL. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine de Gruyter.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4), 597-606.

- Gribble, J., Graff, M. (2010). Family Planning Improves the Economic Well-being of Families and Communities. Population Reference Bureau. Retrieved from <http://www.prb.org/Publications/Articles/2010/bangladeshfp.aspx>
- Grootaert, C. (2001). Social capital: The missing link?. In P. Dekker & E.M. Uslaner (Eds.), *Social capital and participation in everyday life*. (pp.9-29). New York: Rutledge.
- Guba, E.G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries, *Educational Communication and Technology Journal* 29, 75–91.
- Hancock, D. R., & Algozzine, R. (2006). *Doing case study research: A practical guide for beginning researchers*. New York: Teachers College Press.
- Hay, I. (Ed.). (2000). *Qualitative research methods in human geography*. Oxford: Oxford University Press.
- Hemming, P. J. (2008). Mixing qualitative research methods in children's geographies. *Area*, 40(2), 152-162.
- Hennink, M. M. (2008). Language and communication in cross-cultural qualitative research. In *Doing cross-cultural research* (pp. 21-33). Springer Netherlands.
- Hesse-Biber, S. N., & Leavy, P. (2004). *Approaches to qualitative research: A reader on theory and practice*. New York, NY: Oxford University Press.
- Hoepfl, M. C. (1997). Choosing qualitative research: A primer for technology education researchers. *Journal of Technology Education*, 9(1), 47-63.
- Hoggart, K., Lees, L., & Davies, A. (2002). *Researching human geography*. London: Edward Arnold.
- Hope, S., Murray, L., & Martin, C. (2004). *In-migration to the Highlands and Islands*. Edinburgh: NFO Social Research.
- International Monetary Fund, (2012). *IMF Country Report No. 12/203. Ghana: Poverty Reduction Strategy Paper*. International Monetary Fund: Washington, D.C.
- Irvine, F., Roberts, G., & Bradbury-Jones, C. (2008). The researcher as insider versus the researcher as outsider: Enhancing rigour through language and cultural sensitivity. In *Doing cross-cultural research* (pp. 35-48). Springer Netherlands.
- Jagri, F., & Yeboah, T. (2016). Moving from rhetoric into action: Effectiveness of state–civil society synergy for healthcare delivery in rural Ghana. *Geojournal*, 81(3), 411-425. doi:10.1007/s10708-015-9633-7.
- Japanese International Cooperation Agency. (2016, March 22). Press Release: Commissioning ceremony of CHPS compound and equipment by the "Project for the Development of Community-based Health Planning and Service Infrastructure in the

Upper West Region". Retrieved from:

[http://www.jica.go.jp/ghana/english/office/topics/press\\_160322.html](http://www.jica.go.jp/ghana/english/office/topics/press_160322.html)

- Johnson, F. A., Frempong-Ainguah, F., Matthews, Z., Harfoot, A. J., Nyarko, P., Baschieri, A., ... & Atkinson, P. M. (2015). Evaluating the impact of the community-based health planning and services initiative on uptake of skilled birth care in Ghana. *PloS one*, *10*(3), e0120556.
- Johnston, G., & Percy-Smith, J. (2003). In search of social capital. *Policy & Politics*, *31*(3), 321e334.
- Kane, S., Kok, M., Ormel, H., Otiso, L., Sidat, M., Namakhoma, I., ... & Theobald, S. (2016). Limits and opportunities to community health worker empowerment: A multi-country comparative study. *Social Science & Medicine*, *164*, 27-34. doi: 10.1016/j.socscimed.2016.07.019.
- Kaufman, H.F. 1959. Toward an interactional conception of community. *Social Forces* 38: 8-17.
- Kaufman, H. F., & Wilkinson, K. P. (1967). *Community structure and leadership: An interactional perspective in the study of community*. State College, Miss.
- Kawachi, I., Kennedy, B. P., & Glass, R. (1999). Social capital and self-rated health: A contextual analysis. *American Journal of Public Health*, *89*(8), 1187-1193. doi:10.2105/AJPH.89.8.1187.
- Kearns, R. (1993). Place and health: Towards a Reformed Medical Geography. *The Professional Geographer*, *45*(2), 139-147.
- Kearns, R. A., & Joseph, A. E. (1997). Restructuring health and rural communities in New Zealand. *Progress in Human Geography*, *21*(1), 18e32.
- Kearns, R., & Moon, G. (2002). From medical to health geography: Novelty, place and theory after a decade of change. *Progress in Human Geography*, *26*, 605-625.
- Kilkenny, M., & Nalbarte, L. (2003). Keystone sector identification: A graph theory social network analysis approach. Iowa, USA: Iowa State University, Department of Economics.
- Konadu-Agyemang, K. (2000). The best of times and the worst of times: structural adjustment programs and uneven development in Africa: the case of Ghana. *The Professional Geographer*, *52*(3), 469-483.
- Krishna, A. (2010). *One illness away: Why people become poor and how they escape poverty*. Oxford: Oxford University Press.

- Kuure, V., Mkandawire, P., Arku, G., & Luginaah, I. (2013). 'Abandoning' farms in search of food: food remittance and household food security in Ghana. *African Geographical Review*, 32(2), 125-139. <http://www.tandfonline.com/doi/abs/10.1080/19376812.2013.791630?journalCode=rafg20>
- LeBan, K. (2011). How social capital in community systems strengthens health systems: People, structures, processes. Retrieved from [www.coregroup.org/storage/Program\\_Learning/Community\\_Health\\_Workers/Components\\_of\\_a\\_Community\\_Health\\_System\\_final10-12-2011.pdf](http://www.coregroup.org/storage/Program_Learning/Community_Health_Workers/Components_of_a_Community_Health_System_final10-12-2011.pdf)
- Lee, A., Kiyu, A., Milman, H. M., & Jimenez, J. (2007). Improving health and building human capital through an effective primary care system. *Journal of Urban Health*, 84(1), 75-85. doi: 10.1007/s11524-007-9175-5.
- Lim, L.L. (nd). Female labour-force participation. United Nations Population Division. (p.204). Retrieved from <http://www.un.org/esa/population/publications/completingfertility/RevisedLIMpaper.PDF>
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage
- Rubin, H. J. & Rubin, I. S. (1995). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage.
- Luginaah, I. (2008). Local gin (akpeteshie) and HIV/AIDS in the Upper West Region of Ghana: The need for preventative health policy. *Health & Place*, 14, 806-816.
- Luginaah, I. (2009). 'Health Geography in Canada: Where are we headed?' *The Canadian Geographer*, 53 (1), 89-97.
- Luginaah, I. N. and Dakubo, C. (2003) Consumption and impacts of local-brewed alcohol (Akpeteshie) in the Upper West Region of Ghana: A public health tragedy. *Social Science and Medicine*, 57: 1747–1760.
- Lyons, M., & Snoxell, S. (2005). Sustainable urban livelihoods and marketplace social capital: Crisis and strategy in petty trade. *Urban Studies*, 42(8), 1301-1320. doi:10.1080/00420980500150631.
- Lytle, L. A., Ward, J., Nader, P. R., Pedersen, S., & Williston, B. J. (2003). Maintenance of a health promotion program in elementary schools: results from the CATCH-ON study key informant interviews. *Health education & behavior*, 30(4), 503-518.
- Macinko, J., Starfield, B., & Shi, L. (2003). The contribution of primary care systems to health outcomes within Organization for Economic Cooperation and Development (OECD) countries, 1970–1998. *Health services research*, 38(3), 831-865.
- Macintyre, K., & Hotchkiss, D. R. (1999). Referral revisited: community financing schemes and emergency transport in rural Africa. *Social science & medicine*, 49(11), 1473-1487.

- Madhavan, S., & Landau, L. B. (2011). Bridges to nowhere: Hosts, migrants, and the chimera of social capital in three african cities. *Population and Development Review*, 37(3), 473-497. doi:10.1111/j.1728-4457.2011.00431.x.
- Mayer, A. L. (2008). Strengths and weaknesses of common sustainability indices for multidimensional systems. *Environment international*, 34(2), 277-291.
- Mayer, JD. (2000). Geography, ecology and emerging infectious diseases. *Soc Sci Med* 2000;50:937-52.
- Meade, M., & Earickson, R. (2000). *Medical geography*. New York: Guilford Press.
- Melgaard, B., Creese, A., Aylward, B., Olive, J. M., Maher, C., Okwo-Bele, J. M., & Lee, J. W. (1998). Disease eradication and health systems development. *Bulletin of the World Health Organization*, 76(Suppl 2), 26.
- Merriam, S. B., Johnson-Bailey, J., Lee, M., Kee, Y., Ntseane, G., & Muhamad, M. (2001). Power and positionality: Negotiating insider/outsider status within and across cultures. *International Journal of Lifelong Education*, 20(5), 405-416. doi:10.1080/02601370120490.
- Ministry of Health. (2010). Independent Review Health Sector Programme of Work 2009. Retrieved from <http://www.moh.gov.gh/wp-content/uploads/2016/02/Review-of-Ghana-Health-Sector-2009.pdf>
- Ministry of Health. (2010). The Health Sector in Ghana Facts and Figures 2010. <http://www.moh.gov.gh/wp-content/uploads/2016/02/Facts-and-Figures-2010.pdf>
- Mintrom, M. (1997). Policy entrepreneurs and the diffusion of innovation. *American journal of political science*, 738-770.
- Mission Australia. (2006). *Rural and regional Australia: Change, challenge and capacity*. Sydney: Mission Australia. OECD
- Modey, E. (2014, November 5). Ambulance Service grinds to a halt in UWR. *Graphic Online*. Retrieved from <http://www.graphic.com.gh/news/health/ambulance-service-grinds-to-a-halt-in-uwr.html>
- Moon, G. (1990). Conceptions of space and community in British health policy. *Social Science & Medicine*, 30(1), 165-171.
- Morce, J. M. (1995). The significance of saturation. *Qualitative health research*, 5(2), 147-149.
- Moser, C. O., & Lister, S. (Eds.). (1999). *Violence and Social Capital: Proceedings of the LCSES Seminar Series, 1997-98*. World Bank, Latin America and the Caribbean Region, Environmentally and Socially Sustainable Development SMU.

- Narayan, D., & M. F., Cassidy. (2001). A dimensional approach to measuring social capital: Development and validation of a social capital inventory. *Current sociology* 49(2): 59-102.
- Nyonator, F. K., Awoonor-Williams, J. K., Phillips, J. F., Jones, T. C., & Miller, R. A. (2005). The Ghana community-based health planning and services initiative for scaling up service delivery innovation. *Health policy and planning*, 20(1), 25-34.  
[http://journals2.scholarsportal.info.proxy1.lib.uwo.ca/pdf/02681080/v20i0001/25\\_tgchpaf\\_susdi.xml](http://journals2.scholarsportal.info.proxy1.lib.uwo.ca/pdf/02681080/v20i0001/25_tgchpaf_susdi.xml)
- O'Leary, T. (2006). Asset based approaches to rural community development: Literature review and resources. Dunfermline: Carnegie UK Trust.
- Opong, J. R., & Hodgson, M. J. (1994). Spatial accessibility to health care facilities in Suhum District, Ghana. *The Professional Geographer*, 46(2), 199-209.
- Osei-Assibey, E. (2014). Inequalities Country Report-Ghana. In *Pan-African Conference on Inequalities in the Context of Structural Transformation*. Retrieved from <http://africainequalities.org/wp-content/uploads/2014/05/Ghana.pdf>
- Parkins, J. (1999). Enhancing social indicators research in a forest-dependent community. *The Forestry Chronicle*, 75(5), 771e780.
- Patton, M. Q. (1999). *Qualitative evaluation and research methods* (3rd Ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Périlleux, A., & Szafarz, A. (2015). Women leaders and social performance: evidence from financial cooperatives in Senegal. *World Development*, 74, 437-452. doi: 10.1016/j.worlddev.2015.05.011.
- Poland, B., Green, L., & Rootman, I. (Eds.). (1990). *Settings for health promotion*. Thousand Oaks, CA: SAGE Publications.
- Powell, R. A., & Single, H. M. (1996). Focus groups. *International Journal for Quality in Health Care : Journal of the International Society for Quality in Health Care / ISQua*, 8(5), 499-504. doi:10.1093/intqhc/8.5.499.
- Prior, M., Farmer, J., Godden, D., & Taylor, J. (2010). More than health: the added value of health care to rural communities in Scotland and Australia. *Health and Place*, 16, 1136e1144.
- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, 6(1), 65e78.
- Rank, M. (2004). The blending of qualitative and quantitative methods in understanding

childbearing among welfare recipients. In S. Hesse-Biber, & P. Leavy (Eds.), *Approaches to qualitative research: A reader on theory and practice* (pp. 81-96). New York: Oxford University Press.

Rarelibra. (2006). File: Upper West Ghana Districts. [Online image]. Retrieved from [https://commons.wikimedia.org/w/index.php?title=File:Upper\\_West\\_Ghana\\_districts.png&oldid=181912960](https://commons.wikimedia.org/w/index.php?title=File:Upper_West_Ghana_districts.png&oldid=181912960).

Richards, H. M., Farmer, J., & Selvaraj, S. (2005). Sustaining the rural primary healthcare workforce: survey of healthcare professionals in the Scottish Highlands. *Rural Remote Health*, 5(1), 365.

Ridde, V., Haddad, S., Yacoubou, M., & Yacoubou, I. (2010). Exploratory study of the impacts of mutual health organizations on social dynamics in Benin. *Social Science & Medicine*, Vol. 7 No. 3, pp. 467-474.

Rishworth, A., Dixon, J., Luginaah, I., Mkandawire, P., Tampah Prince, C., (2016) "I was on the way to the hospital but delivered in the bush": Maternal Health in Ghana's Upper West Region in the Context of a Traditional Birth Attendants' Ban. *Social Science & Medicine*, 148, 8-17.

Rose, G. (1997). Situating knowledges: positionality, reflexivities and other tactics. *Progress in human geography*, 21(3), 305-320.

Saeed, B. I., & Abdul-Aziz, A. R. (2013). Assessing the influential factors on the use of healthcare: Evidence from Ghana. *International Journal of Business and Social Science*, 4(1).

Sandelowski, M. (1995). Sample size in qualitative research. *Research in nursing & health*, 18(2), 179-183

Sen, A. (1997). Human capital and human capability. *World Development*, 25(12), 1959.

Shucksmith, M., Chapman, P., Clark, G. M., Black, S., & Conway, E. (1996). *Rural Scotland today: the best of both worlds?*. Aldershot: Avebury.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75.

Silverman, D. (2005). Instances of Sequences? Improving the State of the Art of Qualitative Research. In *Forum: Qualitative Social Research*, 6 (3).

Simmons R, Brown J, Diaz M. 2002. Facilitating large-scale transitions to quality of care: an idea whose time has come. *Studies in Family Planning* 33: 61–75.

Songsore, J., & Denkabe, A. (1995). *Challenging rural poverty in Northern Ghana: The Case of the Upper West Region*. Trondheim, Norway: Universitetet I Trondheim.



- Sofaer, S. (1999). Qualitative methods: What are they and why use them? *Health Services Research, 34*(5), 1101-1118.
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, Ca: Sage Publications.
- Starfield, B., & Shi, L. (2002). Policy relevant determinants of health: an international perspective. *Health Policy, 60*(3), 201-218.
- Starfield, B. (1994). Is primary care essential?. *The Lancet, 344*(8930), 1129-1133.
- Svendsen, G. L. H., & Sørensen, J. F. L. (2007). There's more to the picture than meets the eye: measuring tangible and intangible capital in two marginal communities in rural Denmark. *Journal of Rural Studies, 23*(4), 453e471.
- Sweetland, S. R. (1996). Human capital theory: Foundations of a field of inquiry. *Review of Educational Research, 66*(3), 341-359. doi:10.2307/1170527.
- Thaddeus, S., & Maine, D. (1994). Too far to walk: maternal mortality in context. *Social science & medicine, 38*(8), 1091-1110.
- Taabazuing, J., Luginaah, I., Djietror, G., & Otiso, K. M. (2012). Mining, conflicts and livelihood struggles in a dysfunctional policy environment: the case of Wassa West District, Ghana. *African Geographical Review, 31*(1), 33-49.
- Tuan, Y-F. (1974). *Topophilia*. Englewood Cliffs, NJ: Prentice-Hall.
- United Nations Economic Commission for Africa. (2013). Creating and capitalizing on the demographic dividend for Africa. Issue paper. Abidjan: ECA and UAC. Retrieved from [http://gatesinstitute.org/sites/default/files/Issues%20Paper%20-%20Creating%20and%20Capitalizing%20on%20the%20Demographic%20Dividend%20for%20Africa\\_En.pdf](http://gatesinstitute.org/sites/default/files/Issues%20Paper%20-%20Creating%20and%20Capitalizing%20on%20the%20Demographic%20Dividend%20for%20Africa_En.pdf)
- Valentine, G. (1997). "Tell me about..." using interviews as a research methodology. In R. Flowerdew, & D. Marin (Eds.), *Methods in human geography: A guide for students doing a research project* (pp. 110-126). Harlow: Longman.
- Valente, T.W. (1995). *Network Models of the Diffusion of Innovations*. Cresskill, NJ: Hampton Press.
- Waitt, G. (2010). Doing Foucauldian discourse analysis-revealing social realities. In I. Hay (Eds.), *Qualitative Research Methods in Human Geography* (pp. 217-240). Don Mills, Ont.: Oxford University Press.
- Weiner, B. J. (2009). A theory of organizational readiness for change. *Implementation Science: IS, 4*(1), 67-67. doi:10.1186/1748-5908-4-67.
- Wig, N. N., Suleiman, M. A., Routledge, R., Srinivasa Murthy, R., Ladrido-Ignacio, L., Ibrahim, H. H. A., & Harding, T. W. (1980). Community reactions to mental disorders—a

key informant study in three developing countries. *Acta psychiatrica scandinavica*, 61(2), 111-126.

- Witten, K., McCreanor, T., Kearns, R., & Ramasubramanian, L. (2001). The impacts of a school closure on neighbourhood social cohesion: narratives from Invercargill, New Zealand. *Health and Place*, 7(4), 307e317.
- Wolch, J. R. (1989). *The shadow state: transformations in the voluntary sector* (pp. 197-221).
- Wolch, J. R. (1990). *The shadow state: Government and voluntary sector in transition*. Foundation Center.
- World Commission on Environment and Development. (1987). *Our common future*. Oxford: Oxford University Press.
- Savigny, D., & Adam, T. (Eds). (2009). *Systems thinking for health systems strengthening*. Alliance for Health Policy and Systems Research, WHO. Retrieved from [http://apps.who.int/iris/bitstream/10665/44204/1/9789241563895\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/44204/1/9789241563895_eng.pdf)
- Wilkinson, K.P. (1972). A field theory perspective for community development research. *Rural Sociology*, 37(1),43.
- Wilkinson, K. P. (1991). *The community in rural America* (No. 95). Greenwood Publishing Group.
- World Health Organization. (2007). *Scaling up health service delivery: From pilot innovations to policies and programmes*. Retrieved from [http://www.who.int/immunization/hpv/deliver/scalingup\\_health\\_service\\_delivery\\_who\\_2007.pdf?ua=1#page=111](http://www.who.int/immunization/hpv/deliver/scalingup_health_service_delivery_who_2007.pdf?ua=1#page=111)
- World Health Organization. (2015). *Family Planning/Contraception*. Retrieved from <http://who.int/mediacentre/factsheets/fs351/en/>
- Woolcock, M. (1998). Social capital and economic development: towards a theoretical synthesis and policy framework. *Theory & Society*, 27(1), 151e208.
- World Bank. (2011). *Reproductive Health at a Glance, Ghana*. Retrieved from: <http://siteresources.worldbank.org/INTPRH/Resources/376374-1303736328719/Ghana41411web.pdf>
- World Health Organization. (2008). *Commission on the social determinants of health-final report. Closing the gap in a generation: health equity through action on the social determinants of health*. World Health Organization: Geneva.
- Yin, R. K. (2003). *Applications of case study research* (3rd ed.). London: Sage.
- Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.). London: SAGE Publications Ltd.

## Appendices

### Appendix A: Checklist for Key Informant Interviews

#### Key Informant In-depth Interview Checklist

##### *Key Informant Interview with Government/CHPS officials*

- Overall, what is your impression about the CHPS?
- Has the CHPS initiative achieved what it set out to do? How effective has it been?
- What strategies have you/the government/officials used to CHPS are functioning at a similar level in different CHPS zones?
- How are these strategies put into action?
- Would you describe to me any issues you/CHPS staff may have experienced in terms care delivery. E.g., challenges? benefits? Transportation?
- Please describe changes that have occurred in your area after the implementation of CHPS?
- What changes have you noticed regarding community action/cooperation?
- To your knowledge, are community members satisfied with the CHPS?
- How do you think the policy has impacted community relations?
- Could you describe to government's role in emergency transport of people from your CHPS area to the major health facilities?
- Could you describe how health emergencies are handled in your CHPS area? Probes: challenges? Community's role? etc.
- What do you think are the largest obstacles for the community members to successfully initiate and operate emergency transport services/networks?
- Why do you think certain communities are more likely to initiate an emergency transport system while other do not?
- How would you describe the future of the CHPS? In your area? Obstacles? Opportunities?
- Is there anything else you would like to tell us or talk about?

*\*These questions will not all be asked in informal key informant interviews such as those with CETS committee members*

## Appendix B: Checklist for Focus Group Discussions

<b>The Contribution of Community-based Health Planning and Services to Community Sustainability in the Upper West Region of Ghana</b> <b>CHECKLIST FOR FOCUS GROUP INTERVIEWS</b>		
<p>Preamble:</p> <p>Hello my name is Hannah Woods, a MSc student in the Department of Geography at Western University, Canada. This study seeks to assess the contributions of the Community-based Health Planning and Services to community sustainability in the Upper West Region of Ghana.</p>		
TOPIC	QUESTION	PROBES
<b>1. Perceptions of CHPS</b>	<p>How does CHPS work?</p> <p>Why is CHPS important to you personally?</p> <p>Why Is CHPS important to your community?</p> <p>What is the added value of CHPS to your community?</p>	<p>-challenges?</p> <p>-benefits of CHPS? (direct or indirect?)</p> <p>-what aspects of your life has CHPS impacted (health, social, etc)</p> <p>-create a network?</p> <p>-facilitate community action or cooperation?</p> <p>-sense of community?</p>

<p><b>2. Emergency Transport Services</b></p>	<p><u>(For the communities with operating emergency transport services):</u></p> <p>How does the emergency transport system operate?</p> <p>What is the emergency transport committee responsible for?</p> <p>Who is the emergency transport committee made up of?</p> <p>What has facilitated the operation of emergency transport system in your community?</p> <p>What were barriers to initiating an emergency transport system in your community?</p> <p>Why do you think some other communities similar to yours do not have functioning emergency transport systems?</p> <p>What is your opinion of the emergency transport service?</p>	<p>-who does what? When?</p> <p>-community leaders? Anyone can become involved?</p> <p>-social network/sense of community?</p> <p>-community leaders?</p> <p>-economic component?</p> <p>-advantages/ benefits?</p> <p>-disadvantages?</p> <p>-benefit some more than others?</p> <p>-do you trust the committee/service?</p>
---	---	---

	<p><u>(For the communities who initiated an emergency transport system, but failed to keep it operating):</u></p> <p>How did the emergency transport system operate?</p> <p>What was the emergency transport system committee responsible for?</p> <p>Who was the committee made up of?</p> <p>What were the barriers to initiating an emergency transport system in your community?</p> <p>What factors facilitated the initiation of the system in your community?</p> <p>Why do you think the emergency transport service was not able to continue in operation?</p> <p>What do you think is required in order to have a successfully operating emergency transport system?</p> <p>What is your opinion of the emergency transport service?</p>	<p>-would you feel comfortable using it?</p> <p>-who did what? When?</p> <p>-community leaders? Anyone could be involved?</p> <p>-lack of social network/sense of community?</p> <p>-lack of community leaders?</p> <p>-economic component?</p>
--	--	---

	<p><u>(For the communities which have never had the emergency transport service in operation):</u></p> <p>How do you transport people with health emergencies to the hospital?</p> <p>Are you aware of any communities with CETS?</p> <p>Has anybody in the community ever brought up the idea of CETS?</p> <p>Why do you think your community not implemented its own CETS?</p> <p>What would you need in the community to be able to set up an CETS?</p> <p>Who would you like to see in CETS committee? Why?</p>	<p>-advantages/ benefits?</p> <p>-disadvantages?</p> <p>-benefit some more than others?</p> <p>-did you trust the committee/service?</p> <p>-would you/did you feel comfortable using it?</p>
--	---	---

<b>3. OTHER CONCERNS</b>	Do you have any other types of concerns or input related to the CHPS or emergency transport services?	
	How could these concerns be addressed?	

<b>4. CONCLUSIONS</b>	Is there anything more you would like to add?	
-----------------------	---	--



## Appendix C: Checklist for In-Depth Interviews

<p style="text-align: center;"><b>The Contribution of Community-based Health Planning and Services to Community Sustainability in the Upper West Region of Ghana</b></p> <p style="text-align: center;"><b>CHECKLIST FOR RESIDENTS' IN-DEPTH INTERVIEWS</b></p>		
<p>Preamble:</p> <p>Hello my name is Hannah Woods, an MSc student in the Department of Geography at Western University, Canada. This study seeks to assess the contributions of the Community-based Health Planning and Services to community sustainability in the Upper West Region of Ghana.</p>		
TOPIC	QUESTION	PROBES
<p><b>1. Perceptions of CHPS</b></p>	<p>Explain to me what you know about CHPS in your community?</p> <p>Why is CHPS important to you personally? Why not?</p> <p>Explain if there are impacts of CHPS in your community?</p> <p>What is the added value of CHPS to your community?</p>	<p>-challenges?</p> <p>-benefits of CHPS? (direct or indirect?)</p> <p>-what aspects of your life has CHPS impacted (health, social, etc)</p> <p>-create a network?</p> <p>-facilitate community action or cooperation?</p> <p>-sense of community?</p>

<p><b>2. Emergency Transport Services</b></p>	<p><u>(For the communities with operating successful emergency transport services):</u></p> <p>How does the emergency transport system (ETS) operate?</p> <p>What is the emergency transport committee responsible for?</p> <p>Who is the emergency transport committee made up of?</p> <p>Describe why the ETS system in your community has been successful. What aspects facilitated the operation of emergency transport system in your community?</p> <p>What were barriers to initiating an emergency transport system in your community?</p> <p>How do you think ETS can be improved in your community? What is it that you would like to see as an improvement?</p> <p>Why do you think some other communities similar to yours do not have functioning emergency transport systems?</p>	<p>-who does what? When?</p> <p>-How did the ETS idea come about?</p> <p>-community leaders? Anyone can become involved? Gender dynamics of committees?</p> <p>-social network/sense of community?</p> <p>-community leaders?</p> <p>-economic component?</p> <p>-collaboration with private transport owners in the urban centres?</p>
---	---	---

	<p>What is your opinion of the emergency transport service?</p> <p><u>(For the communities who initiated an emergency transport system, but failed to keep it operating):</u></p> <p>How did the emergency transport system operate?</p> <p>What was the emergency transport system committee responsible for?</p> <p>Who was the committee made up of?</p> <p>What were the barriers to initiating an emergency transport system in your community?</p> <p>What factors facilitated the initiation of the system in your community?</p> <p>Why do you think the emergency transport service was not able to continue in operation?</p> <p>What do you think is required in order to have a successfully operating emergency transport system?</p> <p>What is your opinion of the emergency transport service?</p>	<p>-advantages/ benefits?</p> <p>-disadvantages?</p> <p>-benefit some more than others?</p> <p>-do you trust the committee/service?</p> <p>-would you feel comfortable using it?</p> <p>-who did what? When?</p> <p>-community leaders? Anyone could be involved?</p> <p>-lack of social network/sense of community?</p> <p>-lack of community leaders?</p> <p>-economic component?</p> <p>-advantages/ benefits?</p> <p>-disadvantages?</p>
--	--	--

	<p><u>(For the communities which have never had the emergency transport service in operation):</u></p> <p>How do you transport people with health emergencies to the hospital?</p> <p>Are you aware of any communities with CETS?</p> <p>Has anybody in the community ever brought up the idea of CETS?</p> <p>Why do you think your community not implemented its own CETS?</p> <p>What would you need in the community to be able to set up an CETS?</p> <p>Who would you like to see in CETS committee? Why?</p>	<p>-benefit some more than others?</p> <p>-did you trust the committee/service?</p> <p>-would you/did you feel comfortable using it?</p>
--	---	--

<p><b>3. OTHER CONCERNS</b></p>	<p>Do you have any other types of concerns or input related to the CHPS or emergency transport services?</p>	
---------------------------------	--	--

	How could these concerns be addressed?	
--	--	--

<b>4. CONCLUSIONS</b>	Is there anything more you would like to add?	
-----------------------	---	--

## Appendix D: Research Ethics Approval



Research Ethics

### Western University Health Science Research Ethics Board NMREB Delegated Initial Approval Notice

**Principal Investigator:** Dr. Isaac Luginaah  
**Department & Institution:** Social Science\Geography, Western University

**NMREB File Number:** 106454  
**Study Title:** The Contribution of Community-based Health Planning and Services to Community Health and Sustainability in the Upper West Region of Ghana  
**Sponsor:**

**NMREB Initial Approval Date:** April 30, 2015  
**NMREB Expiry Date:** April 30, 2016

**Documents Approved and/or Received for Information:**

Document Name	Comments	Version Date
Other	RA Confidentiality Agreement	2015/02/27
Instruments	Key Informants Interview Checklist	2015/02/27
Instruments	Interviews and Focus Group Checklist	2015/02/27
Revised Western University Protocol		2015/04/11
Revised Letter of Information & Consent	LOI: Interviews	2015/04/11
Revised Letter of Information & Consent	LOI: Focus Group Discussion	2015/04/11

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the above named study, as of the NMREB Initial Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB-0000941.

Ethics Officer, on behalf of Riley Hinson, NMREB Chair or delegated board member

Ethics Officer to Contact for Further Information

<input type="checkbox"/> Erika Basile ebasile@uwo.ca	<input checked="" type="checkbox"/> Grace Kelly grace.kelly@uwo.ca	<input type="checkbox"/> Mina Mekhail mmekhail@uwo.ca	<input type="checkbox"/> Vikki Tran vikki.tran@uwo.ca
---	---	--	--

*This is an official document. Please retain the original in your files.*

## **Appendix E: Letter of Information and Consent Form for Focus Group Discussions**

### **The Contribution of Community-based Health Planning and Services to Community Health and Sustainability in the Upper West Region of Ghana**

#### Letter of Information

#### Invitation to Participate in Focus Group Discussion

I am Hannah Woods, a Master's student working under the supervision of Dr. Isaac Luginaah in the Department of Geography at the University of Western Ontario in Canada. We are currently doing a study on the contribution of the Community-based Health Planning and Services (CHPS) to community health and well-being in the Upper West Region of Ghana, and would like to invite you to participate in this study. I would like to invite you to join in a focus group discussion as it would help to create understandings about the ways in which CHPS impacts communities. Each focus group will have about six to eight people.

If you agree to participate in the focus group discussions, you and the other people within the group would be asked to answer a series of questions. No personal identifiers are required and will not be collected. All focus group discussions will be audio recorded, and recordings transferred into an external drive that is password protected. If you are not comfortable with being audio recorded, you will be invited to participate in a one-to-one in depth interview, where your responses will be written instead. All the information collected will be used for purposes of the study only. Information will be kept in a secured cabinet and password protected laptop, and will be destroyed five years after the study is completed. The findings will never reveal what individual people said and we will make all efforts to maintain confidentiality.

The focus group discussion should take approximately 2 hours to finish and would be stopped on reaching this time limit. There are no known risks with your participation in this focus group discussion, apart from discomforts related to talking about any personal opinions and experiences. Focus group members will be asked to keep everything they hear confidential and not to discuss it outside of the meeting. However, we cannot guarantee that confidentiality will be maintained by group members.

Your participation is completely voluntary and you may refuse to participate, refuse to answer any questions or withdraw from the study at any time. There is no consequence for withdrawing or not answering any questions. Answering these questions means that you are 18 years or older and have agreed to participate in the study. You may keep a copy of this information sheet. There are no financial benefits for participating in this focus group discussion. However, findings of the study will be available to policy makers and community stakeholders providing areas for improvement. This may influence future CHPS policy making regarding continued, and/or increased funding. The findings from this study will be given to Dr. Sylvester Galaa, Dean of Faculty of Integrative Studies at UDS [REDACTED] who will then disseminate findings to villages where focus groups were conducted. You can also contact Dr. Isaac Luginaah you are interested in getting feedback on results.

If you have any questions about the conduct of this study or your rights as a research participant you may contact the primary researcher locally in Wa Ghana at [REDACTED] or the Manager, Office and Research Ethics, The University of Western Ontario at [REDACTED] or the Principal Investigator or primary researcher of the study:

Dr Isaac Luginaah

Hannah Woods

Department of Geography

Department of Geography

The University of Western Ontario

The University of Western Ontario

**The Contribution of Community-based Health Planning and Services to Community Health and Sustainability in the Upper West Region of Ghana**

**Written Consent for Literate Participants**

I have read the Letter of Information, have had the nature of study explained to me, and all questions have been answered to my satisfaction and I agree to participate

Do you agree that you agree that we can record your interview:  Yes  No

Participant Name \_\_\_\_\_ Participant

Signature\_\_\_\_\_

Date\_\_\_\_\_

Investigator's Name \_\_\_\_\_ Investigator's Signature \_\_\_\_\_

Date\_\_\_\_\_



## Appendix F: Letter of Information and Consent Form for In-Depth Interviews

### The Contribution of Community-based Health Planning Services to Community Health and Sustainability in the Upper West Region of Ghana

#### Letter of Information

#### Invitation to Participate in In-depth Interview

I am Hannah Woods, a Master's student working under the supervision of Dr. Isaac Luginaah in the Department of Geography at the University of Western Ontario in Canada. We are currently doing a study on the contribution of Community-based Health Planning Services (CHPS) to community health and community well-being in the Upper West Region of Ghana, and would like to invite you to participate in this study. I would like to invite you to join in an in-depth interview as it would help to create understandings about the ways in which CHPS impacts communities.

If you agree to participate in this study, you would be asked to answer a series of questions. During the interview discussion, digital voice recording would be done. Interview recordings would be transferred from the recorder into an external drive that is password protected. No personal identifiers are required and will not be collected. The information collected will be used for purposes of the study only. All personal information collected for the study will be kept confidential. This will be kept in a secured cabinet and password protected laptop, and will be destroyed five years after the study is completed. The findings will never reveal what individual people said and we will make all efforts to maintain confidentiality.

The interview should take approximately 45 minutes to one hour to finish and would be stopped on reaching this time limit. There are no known risks with your participation in the interview, apart from discomforts related to talking about any personal information.

Your participation is completely voluntary and you may refuse to participate, refuse to answer any questions or withdraw from the study at any time. There is no consequence for withdrawing or not answering any questions. Answering these questions means that you are 18 years or older and have agreed to participate in the study. You may keep a copy of this information sheet. There are no financial benefits for participating in this focus group discussion. However, findings of the study will be available to policy makers and community stakeholders providing areas for improvement. This may influence future CHPS policy making regarding continued, and/or increased funding. A summary of results will be given to Dr. Galaa, Dean of Faculty of Integrative Studies at [REDACTED], who will then disseminate findings to villages where the study was conducted. You can also contact Dr. Isaac Luginaah you are interested in getting feedback on results.

If you have any questions about the conduct of this study or your rights as a research participant you may contact the primary researcher locally in Wa Ghana at [REDACTED], or the Manager, Office and Research Ethics, The University of Western Ontario at [REDACTED] or the Principal Investigator or primary researcher of the study:

Dr Isaac Luginaah

Hannah Woods

Department of Geography

Department of Geography

The University of Western Ontario

The University of Western Ontario

**The Contribution of Community-based Health Planning Services to Community Sustainability in the Upper West Region of Ghana**

**Written Consent for Literate Participants**

I have read the Letter of Information, have had the nature of study explained to me, and all questions have been answered to my satisfaction and I agree to participate.

Do you agree that you agree that we can record your interview:  Yes  No

Participant Name \_\_\_\_\_ Participant

Signature\_\_\_\_\_

Date\_\_\_\_\_

Investigator's Name \_\_\_\_\_ Investigator's Signature \_\_\_\_\_

Date\_\_\_\_\_

## Appendix G: Curriculum Vitae

### Curriculum Vitae

<b>Name:</b>	Hannah Woods
<b>Post-secondary Education and Degrees:</b>	Western University Department of Geography London, Ontario, Canada 2014-2016 MSc
	Western University School of Health Studies London, Ontario, Canada 2009-2014 BHSc
<b>Honours and Awards:</b>	Queen Elizabeth II Scholar 2015-2016
	Graduate Research Award Fund 2016 Western University, Department of Geography
<b>Related Work Experience:</b>	Teaching Assistant, How Humans Interact with the World Winter 2016 Western University, Department of Geography
	Teaching Assistant, Public Health and Environment Fall 2015 Western University, Department of Geography
	Teaching Assistant, Geography of Tourism Fall 2014 Western University, Department of Geography
	Teaching Assistant, Geography of Tourism Winter 2015 Western University, Department of Geography
<b>Conference Presentations:</b>	AAG Annual Meeting, San Francisco, California “The Contribution of Community-based Health Planning and Services (CHPS) to Health and Community Sustainability in the Upper West Region of Ghana” <b>April 2016</b>