UNIVERSITY OF CAPE COAST

EFFECTS OF POVERTY ON MATERNAL AND CHILD HEALTH IN

THE TAMALE METROPOLIS OF NORTHERN REGION

SHIRLEY ISSAH

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EFFECTS OF POVERTY ON MATERNAL AND CHILD HEALTH IN THE

TAMALE METROPOLIS OF NORTHERN REGION

BY

SHIRLEY ISSAH

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MANAGEMENT

JUNE 2011

DECLARATION

Candidate's declaration

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

Candidate's signature:……………….…. 　　 Date:………………………

Name: Shirley Issah

Supervisor's declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's signature:…………………… 　　 Date:………………………

Name: Prof. Stephen Kendie

ABSTRACT

The study examined the effects of poverty on maternal and child health in the Tamale Metropolis with regard to access to information and quality service provision and utilization. Six research questions were formulated to guide the direction of the study. The study was a descriptive one and involved 320 health service recipients and 80 health service providers who were selected through the stratified and purposive sampling techniques respectively

The study found that poverty in the Tamale Metropolis affects maternal and child health greatly. Poverty is an important or major determinant in the health-seeking pattern of families. The frequency of childbirth on the health of women was also discovered as the main challenge to quality health service delivery in the Metropolis.

Education is the main challenge to maternal and child health delivery in the Tamale Metropolis, any intervention by government should focus on working with parents so that the importance of education is harnessed from parent to child level. It is also recommended that policy makers should consider health interventions which aim to improve the lives of the poor; one that is geared towards eliminating deep and persistent poverty. A policy that will redistribute income in favour of the poor in terms of health benefits from upper class being translated to catering for the health needs of poor folks will help reduce poverty.

ACKNOWLEDGEMENTS

DEDICATION

To my family and all those who contributed to the successful preparation and presentation of this work.

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LIST OF ACRONYMS

DOT   –   Directly Observed Therapy

GDHS   –   Ghana Demographic and Health Service

GHS   –   Ghana Health Service

GoG   –   Government of Ghana

GPRS   –   Ghana Poverty Reduction Strategy

GSS   –   Ghana Statistical Service

HIV   –   Human Immune-Deficiency Virus

IPT   –   International Preventive Treatment

MCH   –   Maternal and Child Health

MDGs   -   Millennium Development Goals

MOH   –   Ministry of Health

NM   –   Neonatal Mortality

NORPREP   –   Northern Region Poverty Reduction Programme

PHC   –   Primary Health Care

PMTCT   –   Post Maternal to Child Transmission

RCH   –   Reproductive and Child Health

RH   –   Reproductive Health

STI's   –   Sexually Transmitted Infections

UNFPA   –   United Nations Funds for Population Activities

VCT   –   Voluntary Counseling and Testing

CHAPTER ONE

INTRODUCTION

Background to the study

The national policy on Reproductive and Child Health (RCH) services is that these services will continue to be integrated and made accessible to all individuals within the context of primary health care. In line with the Ministry of Health's (MOH) programme of work, the main pillars of RCH services shall be to improve access, quality, efficiency, financing and partnerships (RCH, 2004). The justification is that women and children are the most vulnerable group and form 76% of the population (Ghana Statistical Serves [GSS], 2003). Morbidity and mortality among this group account for a major proportion of ill health and deaths in Ghana. While women are significant contributors to the nation's development efforts, children are a nation's important future resource. Their needs are therefore a national priority. These category of people should therefore not be left to die from illnesses that otherwise could have been prevented.

International and national policy dimensions and intervention structures exist to measure and improve maternal and child health and to assess the impact of poverty on maternal and child health. The Millennium Development Goals (MDGs) derived from the Millennium Declaration adopted by the General Assembly of the United Nations at the eighth plenary

meeting in September 2000 have components on maternal health, child health and poverty reduction issues as thematic areas of concern.

The Ghana Health Service (GHS) and the Ministry of Health (MOH) have therefore developed interventional structures based on the realities and priorities of these goals. The MDG-4 focuses on reducing child mortality, with particular monitoring indicators on under-five and infant mortality rates. Similarly, MDG-5 focuses on improving maternal health. Goal 6 on combating HIV/AIDS, malaria and other diseases equally has implications in addressing the health concerns of mothers and children.

In pursuance of the demands of MDG-1 on eradication of extreme poverty and hunger, the Government of Ghana has since 2002 implemented the Ghana Poverty Reduction Strategy (GPRS) as the national development policy framework. The GPRS II (2006 – 2009) emphasizes growth inducing policies and programme as a means to wealth creation and sustained poverty reduction.

The second Five-year (2002 – 2006) programme of work of the MOH had the following objectives on maternal and child health.

- To reduce maternal mortality rates from 214 / 100,000 Live births to 150 / 100,000 live births by the year 2006. The current rate stands at 516/ 100,000 live births; and

- To reduce infant mortality rates from 56.7 / 1000 live births to 50 /1000 live births by the year 2006 (Ghana Demographic and Health Survey [GDHS], 2003).

In this regard, specific indicators and targets were devised and used to assess the level of performance. In essence, the strategy for achieving RCH

objectives and targets is based upon the principles of Primary Health Care (PHC). The focused component of Sexual and Reproductive Health (SRH) in addressing maternal and child health issues is safe motherhood. This entails: Creating the circumstances within which a woman is enabled to choose whether she will become pregnant, and if she does, ensuring she receives care for prevention and treatment of pregnancy complications, has access to trained birth attendants, has access to emergency obstetric care if she needs it, and care after birth, so that she can avoid death or disability from complications of pregnancy and childbirth (Ministry of Health [MOH], 2001).

The goal of the safe motherhood programme is to improve women's health in general and especially, to reduce maternal morbidity and mortality and to contribute to reducing infant morbidity and mortality.

One of the major factors contributing to the high incidence of maternal mortality in Ghana is the delay in accessing safe motherhood services. Lack of transport, long distance to health facilities, poor road networks and high cost of transportation have all contributed to the delay. The impact of poverty on these impinging variables is therefore explicit. It is imperative to investigate the issue in more detail in Tamale Metropolis as a case study for other parts of the North. The Ghana Demographic and Health Survey (2003) provide data on maternal and child health in the Northern Region as a comparative data with regard to what pertains in other regions in Ghana. The Northern Region registers approximately 800/100,000 live births as maternal mortality as compared to 516/ 100,000 live births for Ghana as a whole (GDHS, 2003).

In Ghana, older women are less likely to receive antenatal care from a trained health professional than younger women (GDHS, 2003). In terms of

percentage of women who had a live birth between 1998 and 2003, attended to by trained professionals, Northern Region registered 8.4% attended by a Doctor, against the national average of 20.9%, and compared with 2.6% for Upper East and 3.7% for Upper West. In terms of being attended by a nurse, midwife or auxiliary midwife, Northern Region registered 74.3% against National average of 71.0% and compared with 82.6% for Upper East and 87.2% for Upper West Regions (GDHS, 2003).

Levels and trends of infant and child mortality also exist to justify the moves to conduct this study. As expected, mother's education is inversely related to a child's risk of dying. Under-five mortality among mothers with no education (125 per 1,000 live births) is noticeably higher than among women with middle / JSS level of education (92 per 1,000 live births). Neonatal Mortality (NM) in Northern Region is 38 per 1,000 live births, Post Neonatal Mortality (PNM) is 32 per 1,000 live births and under-five mortality is 154 per 1,000 live births. For most of these variables, Northern Region performs better than only Upper West Region, where Neonatal mortality is 62 per 1,000 live births and under-five mortality being highest at 208 per 1,000 live births (Ghana Statistical Service [GSS], 2003).

Problem statement

Both poverty and ill-health are the consequence of a complex interplay of biological, gender, social, cultural, economic, political and environmental processes that operate at the individual and community levels. Poverty has a direct linkage with the risk of becoming sick and dying from conditions that are preventable. The presence of high risk factors increases the chances of

miscarriage, congenital malformations, and delivery complications such as fistula, low birth weight babies and related conditions. Poverty may induce malnutrition in children that may also result in irreversible growth and developmental disadvantages. Malnutrition may interact with unhealthy living conditions to increase the risk of childhood infections.

Despite the fact that a number of programmes have been put in place to reduce maternal morbidity and mortality, the rates are unacceptably high. Assessing maternal mortality and morbidity is still a problem even though the causes are well known. From the Ghana Fertility Survey Report, maternal mortality ratio was estimated at around 500– 800 per 100,000 live births in the 1970s. The main causes of maternal morbidity and mortality in Ghana are mainly malaria, anaemia, eclampsia, haemorrhage and birth related injuries such as vesico-vaginal and recto-vaginal fistulae (GDHS, 2003).

Trends in mortality of children and women in Ghana can be perceived as follows. First, infant mortality rate (< 1 year) declined by 14 percent from 77 deaths per 1000 live births in 1988 to 66 per 1000 live births in 1993, and 57 deaths per 1000 live births in 1998 and 64 deaths per 1000 live births in 2003, an increase by 12% (GDHS, 2003). Second, under – five mortality rate (0-5 years) declined from 155 deaths per 1000 live births in 1988 to 119 deaths per 1000 live births in 1993 and 108 deaths per 1000 live births in 1998. But the rate increased by 3% to 111 deaths per 1000 live births in 2003. This implies that between 1999 and 2003, one in every nine children born in Ghana died before their fifth birthday (GDHS, 2003). Third, the national average of maternal mortality ratio in Ghana is 214 per 100,000 live births.

However, there are areas in Ghana where the rate is estimated to be as high as 700 per 100, 000 live births.

Northern Region has phenomenally nasty indicators of maternal and child health, and this calls for disciplined inquiry to enhance evidence-based interventions for positive change. Maternal mortality is roughly 800 deaths per 100,000 live births (MOH, 2001). Neonatal Mortality (NM) is 38 deaths per 1000 live births, Post Neonatal Mortality (PNM) is 32 deaths per 1,000 live births and infant mortality stands at 69 deaths per 1,000 live births, child mortality and under-five mortality are 90 and 154 deaths per 1,000 live births respectively. In all these, Northern Region fares very badly.

Interestingly, the three Northern Regions and Central Region are the four poorest regions in Ghana. These regions also fare badly in both maternal and child mortality and morbidity, giving the impression that poverty impacts negatively on maternal and child health status. If individuals remain in poverty, it is not very likely that they will have adequate information about, or access to, quality maternal and child health. Deplorable maternal and child health will jeopardize the quality of the population and sustainable development will suffer through low production and productivity.

Main/General objective of the study

The main objective of the study was to examine the effects of poverty on maternal and child health in Tamale Metropolis with regard to access to information and quality service provision and utilization.

The study specifically sought to,

- Find out the magnitude of poverty in Tamale Metropolis;

- Identify and assess maternal and child health services available in Tamale Metropolis;

- Examine the relationships that exist between poverty and maternal and child health;

- Explore the challenges of maternal and child health service delivery in the Tamale Metropolis; and

- Make recommendations for improving maternal and child health service delivery in the Tamale Metropolis.

Research questions

The following research questions were formulated to guide the direction of the study.

- What is the magnitude of poverty in the Tamale Metropolis?

- What are the causes of poverty in the Tamale Metropolis?

- What maternal and child health services are available in the Tamale Metropolis?

- What is the relationships between poverty and maternal and child health in the Tamale Metropolis?

- What challenges face maternal and child health care delivery in the Tamale Metropolis?

- What are the recommendations for improving maternal and child health in the Tamale Metropolis?

Significance of the study

 The purpose of this study was to investigate the views of women, men and health workers on the effects of poverty on maternal and child health. It is the researcher's hope that the study will help policy makers to take measures to eradicate poverty and its effects on maternal and child health.

This study will therefore help the United Nations Fund for Population Activities (UNFPA) and pathfinder joint project on fistula prevention initiated in Northern Region in 2003 to find the socio- cultural issues related to maternal and child health which is useful in determining specific reproductive health concerns, safe motherhood in particular, and fistula occurrence as a focused issue.

In addition, it will serve as a guide to Northern Region Poverty Reduction Programme (NORPREP) to reshape their poverty reduction strategy to meet the challenges of poverty related issues on maternal and child health. Also the GHS and MOH can use the findings to guide them in the planning and execution of maternal child health programmes.

The study will also serve as literature for researchers who want to explore further the relationship between poverty and maternal and child health in the Tamale Metropolis, Northern Region and the country as a whole. Other development partners operating in the region on poverty and the status of maternal and child health will need this document for improvement.

Furthermore, the study will also serve as a guide for students at all levels who wish to conduct studies in similar fields of endeavour. Locality specific, the literature will be used to inform their studies focused on Tamale Metropolis or Northern Region. The study will also help the safe motherhood

and child survival units to particularly compare the results reflecting the Metropolis to the regionally representative data, and come out with locally specific intervention strategies to change the nagging trend in maternal and child health.

Delimitation of the study

The study focused on the effects of poverty on maternal and child health in the Tamale Metropolis of Northern Ghana. It was delimited only to poverty and maternal and child health in the 139 communities in the Tamale Metropolis. Findings from this study apply to the communities in the Metropolis. Other Districts, Municipalities and Metropolis with similar characteristics as the Tamale Metropolis, may however adopt the findings.

Organisation of the study

This dissertation has been organized into five main chapters including chapter one. Literature related to the issue under investigation has been presented as chapter two, and addresses the key objectives of the study as impetus for valid discussions of the study findings.

Various research methods were used to generate data to meet the objectives of the study. These were presented as chapter three. They were explicitly manifested in the presentation to enhance reliability of the study. Salient portions of the chapter three included type of study design adopted, populations, samples used and the sampling techniques, adopted instruments, data collection procedure and data analysis procedures.

In chapter four, data organized in the previous chapter were presented in raw data, frequencies marginal tabulations, graphic focuses and other descriptive data display formats. This data presentation was followed in each case with discussions of the study findings, where current findings were compared with earlier findings presented as related literature in chapter two.

The last chapter is chapter five and focuses on summary of the findings of the study, conclusions that emerged from the findings and key recommendation and suggestions were made.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

In this chapter, literature reviewed related to the issue under investigation has been presented. It discusses the concept of poverty and health, the quality of maternal and child health, the relationship between poverty and maternal and child health and also attitude towards maternal and child health.

Definition of poverty

While Tolley and Thomas (1987) tend to measure poverty in terms of income and economic development, Harpham, Lusty and Vaughan (1988) are of the opinion that the measurement of poverty is difficult and may prove deceptive, especially if income is the sole criterion. Because income statistics tend to be unreliable and the majority of poor people may be unemployed and not have access to an income, a better picture can be obtained by using non-monetary criteria. While the 'poverty line' may have administrative uses, it has no absolute validity as the percentage of a population above or below that line can be large or small depending on the assumptions and concepts used. Thus, the distribution of income values serves as a better indicator as it provides a better approach and permits the selection of a poverty line appropriate for a specific purpose.

Ferge and Miller (1987) on the other hand, see poverty as a self-evident phenomenon of everyday reality which is difficult to grasp in a scientifically manageable way. According to them, poverty may be defined in absolute or relative terms. Defined in absolute terms, poverty means the inability of individuals or families to maintain, through lack of adequate resources, a socially minimal or acceptable level of living. In the relative sense, poverty is one aspect of social inequality. It means that part of the population lacks the resources which assume full social membership in the given society, or at least which would assure living conditions customary in a given society.

From these definitions, it is clear that poverty in the absolute sense may be considerably reduced or even overcome if all sections of the poor could profit from economic growth, while the reduction of poverty in the relative sense is related not only to an increase in resources, but also to structural changes in the allocation of resources. In the latter sense, poverty is not only a condition of economic insufficiency but also of social and political exclusion (Barometer, 1991).

Theories on socio-economic status (poverty) and Health

The broad perspectives on why we might anticipate a link between population-level Socio-economic status (level of poverty) and population health have been summarized by Stephenson (1998) as follows:

The absolute income hypothesis

The absolute income hypothesis suggests that health status improves with the level of personal income, but at a decreasing rate. One implication of

this hypothesis is that: if income is redistributed from the rich, whose health is not much affected, to the poor, whose health is more responsive to income, average health will improve. Other things being equal, including average income, nations (or other groups) with a more equal distribution of income will have better average group health.

The absolute deprivation hypothesis

The absolute deprivation hypothesis, which might be regarded as an extreme version of the absolute income hypothesis, suggests that very low standards of living are bad for health, but that once past some deprivation threshold, additional income is not particularly important for health. Note that the emphasis here is that individuals living with very low incomes will encounter physical conditions that may undermine their health, such as poor nutrition, more limited access to health care, hazards from poor environmental quality, health-limiting behaviours such as smoking and sedentary habits and stress resulting from coping with very low income.

The relative position (or psycho-social) hypothesis

The relative position (or psycho-social) hypothesis, largely associated with the pioneering work of Wilkinson, emphasizes individuals positions within a social hierarchy, independent of standard of living, as the key to understanding the link between inequality of SES and health (Wolfson, Kaplan, Lynch, Ross, & Backlund, 1999). Wilkinson and his colleagues argue that the ongoing stress associated with being lower down (and not just at the bottom) on a social ladder leads to biological processes that are harmful to

health. They also emphasize the negative implications of income inequality for the creation of social cohesion. A major problem associated with the relative position hypothesis is the correct identification of the most relevant comparison group with whom do individuals compare themselves?

The neo-materialist hypothesis

The neo-materialist hypothesis argues that high levels of income inequality are simply one manifestation of underlying historical, cultural, political and economic processes that simultaneously generate inequalities in social infrastructure (such as medical, transportation, educational, housing, parks and recreational systems). From this perspective, inequalities in health derive from inequalities in all of the above aspects of the material environment. Lynch and co-authors employ the metaphor of a long trip on an airplane to explain the difference in interpretation between the psycho-social and the neo-materialist interpretations (Stephenson, 1998). On a long trip on an airplane, passengers seated in first class are treated better: they have, for example, more room and receive better food. Passengers travelling in economy class are cramped and, these days, receive little if any food! Lynch et al argue that by the end of many hours of travel, the differences in physical conditions and treatment will reduce the well-being of the passengers in economy class (beyond feeling negative emotions because they know they are being unequally treated).

Some authors have argued that the apparent link between population health and income inequality may simply be a statistical artifact arising from the relationship described above as the absolute income perspective. However,

Wolfson and co-authors demonstrate fairly persuasively that this relationship cannot account entirely for the link between health and income.

Poverty and maternal health

In discussing poverty and health, a point that deserves special emphasis is that poverty is very much a women's issue, at least in part because of women's double roles. Women with young children are much more likely than men to be poor, and their burdens are usually greater as they must care for children and the household and also earn a living. Poor women have needs and make contributions that are different to those of poor men; thus their problems require different solutions (Pietila & Vickers, 1990).

Women make up more than 50% of the world's population, yet their position is inferior to that of men. Women from lower socioeconomic backgrounds have even less power than do other women. Because of the lower social and legal status accorded to them, poor women are usually less educated, have fewer opportunities, poorer health care and less control over their lives.

According to Perales and Young (1988), poor women also have less access to land, capital and technology and this lack of access leads to greatly diminished efficiency of production both outside and inside the house. Less education entails cost to society, not only because of the loss of women's potential for higher productivity in the labour market, but also because women as mothers make the first investment in the nutrition, health and education of children and these investments are critical to the country's future economic growth.

The pattern of ill-health extends to poor women, not only in the form of high maternal mortality, but also in the form of high morbidity. According to WHO (1992), the maternal mortality rate reaches as high as 1,000 per 100,000 live births in developing countries, compared with 5 to 30 per 100,000 in industrialized countries. Likewise, UNICEF reports that about 500,000 women die from conditions related to pregnancy and childbirth (UNICEF, 1991). These statistics are too important to ignore. Poverty reflects many unfavourable associations with childbirth which affect infant survival. Poor women are said to suffer from what is termed 'maternal depletion', as a result of early mating, continuous cycles of pregnancy and inadequate diets, often made worse by food prejudices, and uninterrupted overwork leading to anaemia or general malnutrition with premature ageing and early death (Travis, 1976).

Ntoane (1991) found that poverty lays a particularly heavy burden on black women in South Africa, because of their dual roles in the economy. Often women work inside and outside the home. At home they are usually responsible for house chores, food preparation and child care. For poor rural and peri-urban women, home production can also include such grueling chores as gathering firewood and carrying water; plowing and harvesting; building houses, grinding and milling grains and caring for animals (Ntoane, 1991; Wilson & Ramphele, 1989). Poor women also tend to have more children which add considerably to their chores. Many of these women are physically depleted from these chores and have very little time to care for these children.

Consideration of the health status of poor women will be incomplete without mention of an ever-increasing rate of sexually transmitted diseases.

These are often not treated timeously because of fear of being prejudiced and stigmatized, even though these are generally passed on from husbands, particularly those who are migrant workers. With the spread of the epidemic AIDS, the lives of these poor women and their newborns are in even more danger (Ntoane, 1991).

Another area of inquiry which has not received the attention it merits concerns women's issues related to the workplace. The available information suggests that poa-women are exposed to workplace hazards such as lead or solvents which may affect their fertility, lead to foetal damage, miscarriage or abortion and childhood cancer.

Poverty and health

In the view of Aber, Lawrence, Conley, Jiali, and Neil, (1997), there exist clarity with regard to the relationship between poverty and child health and development. What remains elusive is operationalizing poverty to reflect its dynamic nature. There is no consensus on how to operationalise poverty. One difficulty is that income and poverty is correlated with a host of other social conditions that themselves have been known to be detrimental to children.

Obviously, it is difficult to disentangle poverty from the disadvantages of family structure, education and occupational security that often accompany poverty status. The crucial and critical question is "how poor is the poor"? Relative poverty is rooted in the distribution of income. The persistently poor are those who are poor over an extended period of time. This latter

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phenomenon has serious implications for this study that explored the effect of poverty on maternal and child health and survival.

Poverty is a daunting global problem and even though most vulnerable groups and poorest of the poor are often considered, programmes on health must as much as possible be all-inclusive (Government of Ghana [GoG], 2007).

Reducing poverty for sustainable Health promotion is therefore a central challenge. The importance of health demands that continuing quality services are considered. These are,

- Access to health service.

- Such services should be user friendly.

- Affordability is important.

- Equity is a relevant variable (World Bank, 2000)

According to Ghana Statistical Service [GSS] (2003), poverty has many dimensions. It is characterized by low income, malnutrition, ill-health, illiteracy, and insecurity. It has been reported that poverty in Ghana has remained a disproportionately rural phenomenon up till now. One of the key findings was that the distribution of the population living below the poverty line in this country ranged between one percent in urban coastal to 50 percent in rural Savannah. In fact, the contribution of rural savannah to total poverty in Ghana was observed to be increasing consistently. The Ghana poverty reduction strategy defined poverty as "unacceptable physiological and social deprivation" (GoG, 2007).

The GoG (2007) examined the scope of poverty in Ghana and summarized the regional dimensions. The stipulations are that about nine out

of 10 people in the Upper East, eight in the Upper West, seven in the Northern Region and five in the Central Region were classified as poor in 1998/99.

The essence of taking resolute steps and pragmatic actions to enhance quality maternal and child health service delivery is to address the concerns of major causes of mortality among these groups. These include malaria, anaemia, eclampsia, haemorrhage, and birth injuries such as vesico-vaginal and recto -vaginal fistulae (WHO, 2006).

Quality of maternal and child health services

The Ghana Health Service reports that nearly two-thirds of Ghana Health Service facilities are in the public sector, with private and trained TBAs augmenting their services (MOH, 2001). With the minimum expected antenatal visits being four, more visits are expected due to the introduction of the Intermittent Preventive Treatment (IPT) of malaria in pregnancy using Directly Observed Therapy (DOT), Post Maternal to Child Transmission (PMTCT) of Human Immune-Deficiency Virus (HIV) and Voluntary Counseling and Testing (VCT) for Human Immune Virus (HIV).

The report found that in 2004, out of 757, 353 pregnant Ghanaian women registered, 14.2% (107,636) constituted adolescents. For adolescents 10 – 14 years, 652 were pregnant in 2002, 1079 in 2003 and 1392 in 2004. For those aged 15 – 19 years 108, 487 were pregnant in 2003 as against, 106 254 in 2004, most of these constituting impoverished adolescents. The inference from the above analysis is that pregnancy has its associated risks but when pregnancy occurs among young, inexperienced, immature and impoverished youth, it is more of a tragedy. The worrying issue is that the Northern Region

has a youthful population (46.3% aged less than 15 years), with 15.7% of teenagers being mothers, 23.6% have begun child bearing and 7.9% pregnant with their first child (GSS, 2003).

With regard to contraceptive use, the observation is that contraceptive prevalence rate in Ghana has increased from 13% in 1988 t0 25% in 2003. The increase in contraceptive use is attributable to the use of modern methods. The use of modern contraceptives by married women in the Northern region improved rather marginally from 6.0% in 1998 to 7.7% in 2003. In both instances the Region fared poorly in Ghana (WHO, 2006).

According to UNFPA (2005) the world has an unprecedented opportunity to "make poverty history," stressing that over half a million women worldwide are dying needlessly every year from pregnancy-related complications. In essence, inequality between women and men is open, pervasive and entrenched. It begins early, can last a lifelong and is often exacerbated by poverty. In a study on contraceptive use among the poor in Indonesia, Schoemaker (2005) found that 43% of the poorest women used modern contraceptives, compared with 53% of moderately poor and 59% of better off women. The study results also collaborated with the nearly universal findings in developing countries that the poorer women are, the more children they want- and invariably get. These findings conform to the Northern Region where only 7.7% of currently married women age 15-49 use modern contraceptives, and as high as 7.0 children being average total fertility rate in the region (WHO, 2006).

Since family planning as a key measure of fertility and a variable for measuring maternal and child health risks, studies assessed the quality of

service providers. Wilson and Ramphele, (1989) found that short-term counselling training would significantly improve the quality of care by family planning workers. It was also found that trained nurses performed better than their untrained counterparts in quality-of care areas investigated, namely; interpersonal relations, information giving counseling, and mechanisms for encouraging continuity

Relationship between poverty and maternal and child health

Poverty in childhood exerts its effect throughout the life course and can be transmitted across generations. Intergenerational transmission occurs through maternal health and health-related behaviour before and during pregnancy. Low birth-weight of the mother herself, influenced by the socio-economic status of her family of origin, has a direct effect on the birth-weight of her child. Short stature and a tendency to higher blood pressure also have an indirect effect. Maternal height is one of the most important determinants of infant birth-weight, itself the most important determinant of infant mortality (Isaac & Michael, 1990). They continue that apart from the genetic influences on maternal height, poverty and low socioeconomic status of the mother's family of origin have a powerful effect through early childhood nutrition. Poverty and low socio-economic status are associated with poor psychological health in women, and psychological ill health and stress have been suggested as one of the pathways by which social disparities in pregnancy outcome arise. Once pregnancy is established, factors such as weight gain during pregnancy, micronutrient intake and smoking have an effect on pregnancy outcome.

According to Madise and Diamond (1995), poor women tend to gain less weight in pregnancy, have lower micronutrient intakes, suffer genital infections and are more likely to smoke more heavily. Smoking in pregnancy has been linked to poor maternal psychological health and increased levels of stress. Poor infants surviving beyond the first week of life continue to be at greater risk of death throughout infancy and childhood. This increased risk results from increased exposure to a range of risk factors for infant and childhood death. For example, risk of sudden unexpected infant death is increased by maternal smoking and maternal depression – both higher in poor households; risk of death due to injury is increased among poor children as they are more likely to live in unsafe housing, play in unsafe areas and live closer to main roads.

There is clear evidence that mother's nutritional status is directly correlated with the nutritional status of the children (Matthews & Diamond, 1997). This is true even when one controls for the variation in the household poverty status. In case of extreme poverty group, proportion of children underweight for severely malnourished mothers is 76 per cent while the matched figure for the well-nourished mothers is 53 per cent. Similarly, in case of middle non-poor group (i.e. those having neither deficit nor surplus) the matched figure for the severely malnourished mothers is 56 per cent as opposed to 33 per cent for the well-nourished mothers.

The sharp contrast in the child nutritional status between the two polar groups of severely malnourished and well nourished mothers largely holds true for all three child anthropometric measures and all four household poverty categories. During the first three years of life, child development is dynamic

and involves the maturation of interrelated functioning such as cognitive, physical and socio-emotional capabilities. It is a period marked by rapid physical and neurological development and requires proper nutrition in order for the child to achieve those capabilities so that the child can reach their full potential not only in quality of life, but also in terms of educational achievement and earning potential. A child's brain during the first three years of life is rapidly developing through generation of neurons, synaptogenesis, axonal and dendric growth, and synaptic pruning each of which build upon each other. Any interruption in this process, such as trauma, stress, under nutrition, or lack of nutrients can have long-term effects on the brain's structure and on the child socio-emotional development (Montgomery & Hewett, 2004).

Poor child development begins in utero when a child may be exposed to intrauterine growth restriction due to the undernourishment of the mother. Poor uterine growth is indicated by low birth-weight (infants weighing < 2,500 g at birth) and is associated with poor development such as lower cognition scores, decreased activity and expressiveness, poor language development, and behavioural difficulties. Beyond intrauterine growth restriction, poor nutrition early in life also contributes to stunting. Contrary to dominant theories on stunting, distributions of stature are not primarily based upon genetic transmission, but are more dependent on nutritional adequacy in early life. It has been demonstrated that adequate income and socioeconomic position help decrease rates of stunting. Thus, stunting is now considered to be an indication only of severe nutritional deprivation. Stunting by age two or

three has been shown to be associated with cognitive deficits later in life, poor school achievement and high rates of school dropout.

The relationship between poverty and child development is not only dramatic in developing nations, it is also a major concern in developed nations where there are pockets poverty, and health disparities related to race/ethnicity, gender, income and education. In the United States there are extraordinary ethnic, racial and gender disparities in the rates of food insecurity. The United States Department of Agriculture estimates 11 per cent or 12.6 million households (35 million people) within the US experienced food insecurity during 2005. Among households with children younger than six years of age, the rate of household food insecurity was one and a half times higher at 16.7 per cent (2.94 million households, 12.79 million people). The relationship between food insecurity and children's health, behaviour, and development varies by age17. Among US children between three and eight years of age, food insecurity has been associated with lower physical function, poor academic performance, and less adaptive psychosocial functioning. Among children less than three years of age, food insecurity was found to be associated with caregiver reports of poorer infant health and increased likelihood of hospitalization. Compared to infants and toddlers in food secure households, infants and toddlers from food insecure households had a significantly increased odds of developmental risk (Park & Park, 1989).

A study conducted by Ramasubban and Singh (1999) indicated that, in developed countries such as the US that have infrastructure, welfare support programmes, higher incomes and overall higher educational attainment, the ill effects of under-nutrition manifest because of these disparities. Child health in

the United States relative to other developed nations is one of the worst in the developed world. The 20 developed nations, the US ranks very low (18th out of 20 overall) due to very high rates of infant mortality, poor child health, and low rates of child safety and security. Disparate rates of poor child health occur in the context of inequality. In the United States the rates of food insecurity may seem low at 11.9 per cent compared to developing nations, but the disparities among groups are stark. Households with children under age 18 years old experienced food insecurity at twice the rate of all other households. For African American and Latino children, the rates are almost three times that of children in white households (31 and 30% vs. 113%)17. Immigrant households have been shown to have much higher rates of food insecurity than US citizen households23-27. For instance, infants and toddlers born to Mexican citizens have a child food insecurity prevalence rate five times that of children born to Native US parents28. The group that suffers the most from food insecurity and hunger is female-headed households. Across the United States, approximately one-third of these households experienced food insecurity, and many times children are not shielded from nutritional deprivation. When women experience food insecurity their mental and emotional states are altered, which can negatively affect their child's development (Ramasubban & Singh, 1999).

In terms of heightened risk factors, it has been shown that young children living in poverty experience higher blood lead levels (10, 66), even after controlling for urbanity, educational level of the parent, race/ethnicity, and a host of other demographic factors. Disadvantaged children have also

been documented to be at increased risk for asthma and lower respiratory illness.

However, this research used either occupation or education of the parent rather than family income/poverty as the indicator of socioeconomic status. Finally, children from disadvantaged backgrounds have been shown to be at greater risk for injuries resulting from accidents or physical abuse/neglect. Most of these studies also based their measurement of socioeconomic status on parental education or occupation, thus not determining the net effect of income on children's risks (Ramasubban & Singh, 1999).

While income directly influences the availability of food, health care, and housing, financial strain also hinders child development through distinct mechanisms. Because of economic limitations, poor parents have more difficulty providing health and intellectually stimulating facilities such as toys, books, adequate day-care, or preschool education that are essential for children's development. In this vein, researchers have found that the home environment and parent-child interaction (Rani & Lule, 2004).

Additionally, family poverty may be disadvantageous to children's development via poor parenting behavior. Research results (Ramasubban & Singh, 1999) suggest that owing to the chronic stress of poverty, parents are more likely to display punitive behaviors such as shouting, yelling, and slapping, and less likely to display love and warmth through cuddling and hugging. This is especially true when poor parents themselves feel they receive little social support. Since a supportive and stable home environment is important for children's mental health and development, receipt of long-

term harsh treatment results in an insecure emotional attachment of children to their parents and subsequent behavioral problems, poor goal orientation, low levels of self-confidence and social competence, and a greater tendency towards inconsistent conduct and behavior. Homeless poor children experience such behavior problems at an even greater rate than housed poor children. One study found that 30 percent of homeless children in Los Angeles exhibited behavior problems and/or school failure compared with 18 percent of housed poor children.

Many explanations are given for why parents experiencing economic difficulties tend to have difficult relationships with their children. The most notable factors related to parenting behavior are depression, stress, and marital/relationship satisfaction. People living in poverty are more likely to endure stress due to financial insecurity, or interruption of employment, or a perceived or actual lack of social support, either financially or emotionally. In addition, economic pressure may increase marital conflict, as well as conflict between parents and children over money. High levels of family conflict, anxiety, and concerns over the family financial situation decrease marital satisfaction and general life happiness. This negatively influences quality of parenting behavior; therefore, an indirect negative impact is exerted on child development. For example, Waters-Bayer and Bayer (1994) found that: "The direct effects of current poverty on internalizing symptoms or externalizing symptoms are not significant, while the indirect effects [through harsh and unresponsive parenting behaviors] are significant and positive" (p. 359).

These cumulative interactions may help account for why researchers have found that the duration of children's poverty experience has a significant,

deleterious influence on their development over and above current poverty. Waters-Bayer and Bayer (1994) summarize: "As the length of time spent in poverty increases, so too do children's feelings of unhappiness, anxiety, and dependence" (p. 360). These findings highlight the need to consider the temporal, cumulative, and interactional aspects of poverty with respect to other ecological subsystems. Beyond persistence of poverty, researchers should also consider more closely income changes among consistently poor families. We have already seen that poor families often experience radical fluctuations in their standard of living due to variable employment or living arrangements. It is important for researchers to separate out the effects of economic deprivation per se from the role of a fluctuating economic climate in creating a stressful household environment. That is, the anormative atmosphere caused by a rising and falling standard of living may be particularly disadvantageous to children's cognitive development via instability in the developmental subsystems that surround the child.

Also, results of national representative demographic surveys for 12 developing countries conducted by Rani and Lule (2004) revealed interesting findings about socio-economic dimension of adolescent Reproductive Health. The study further revealed that in most countries, young women from the poorest households were more likely than those from the richest households to be married by age 18 and to have had at least one child by that age. It was further found out that such adolescents were less likely to report a mistimed birth, to be practicing contraception, to use maternal Health Services and to know how to prevent sexual transmission of HIV.

Economic autonomy and regular exposure to mass media were less common among the poor than among the rich adolescents. Rani and Lule (2004) concluded that, poor adolescents may be over-looked by current service delivery modes that rely solely on mass media, clinics or schools. The stressed that alternative strategies such as community-based programmes, must be implemented to serve the needs of poor young women.

According to GoG (2007), most developing countries are still caught and apparently heavily trapped in a web of poverty. Poverty is therefore perceived to be a daunting global problem. It is emphatically stated that poverty had a direct linkage with the risk of becoming sick and dying from conditions that are often preventable. In essence, a woman's income and education, reproductive behaviour, nutritional status and access to antenatal care and delivery service may all be related to the survival chances of a foetus or child. The presence of high-risk factors increases the chances of miscarriages, congenital malformations, delivery complications, low birth weight babies, and related conditions.

Attitude towards maternal and child health

A study by Herold, Solange, and Morris (1992) in Santiago, Chile, revealed a median age at first sex to be 18.4 years for women and 16.4 years for men. This is not far from what prevails in Ghana where median age at first sex for females 20 – 49 years is 19.1 years and the corresponding figure for their male counterparts aged 25 – 59 years is 19.4 years, with median age at first birth by females 25 – 49 years, 20.3 years (WHO, 2006). The Ghana Demographic and Health Surveys over the years portrayed that the people in

Northern Region live largely pronatalist life style. No wonder there is always a difference between wanted fertility and actual fertility whereby the latter is usually higher than the former, given that fecundity is good. The survey also indicated that most young people who are sexually active seldom use contraceptives, especially condom. The desire for unprotected sex is a source of acquiring sexually transmitted infections (STI'S) / HIV / AIDS and a step towards unintended pregnancies and associated consequences (GSS, 2003).

According to Acsandi and Johnson (1990) cultural norms concerning procreation vary widely, concluding that desire for additional children is widely prevalent among women in the developing world. They asserted that contrary to consideration of the effects of high fertility, the demand for children in such countries begins to weaken only after women have at least four, five, or six living children. No wonder, the poorer women are, the more children they want (Shoemaker, 2005).

The attitude of women delivering at home is critical to this study, since birth deliveries at home are more likely to be done without professional assistance, where facilities are also lacking. For Northern Region where 83% of deliveries are conducted at home (GSS, 2003) actions to change the situation is probably desired sooner than later.

Participation in maternal and child health programmes and services

The level of participation in Maternal and Child Health (MCH) programmes may relate to the nature of decision-making at the family level, and this also may be dictated by the influence of cultural norms, traditional value systems and religious beliefs (GSS, 2003). The 1996 Harare Conference

emphasized on the need for prompt decision-making on maternal and child Health issues, adding that men and women need to partner in seeking maternal and child health and other Reproductive Health (RH) services.

According to GSS (2003), the 2000 Ghana Demographic and Health survey revealed interesting maternal and child Health issues. The findings were that a child's size at birth has often been found to be an important determinant of its survival chance. Mortality rates are consistently high for children whose mothers have no say in any household decision making. Prenatal mortality is highest among mothers age 30 – 39 (58 per 1,000 pregnancies) and lowest among mother age 20-29 (37 per 1000 pregnancies). Prenatal mortality is also relatively higher among teenage mothers (52 per 1000 pregnancies), more so if the previous pregnancies interval is less than 15 months, invariably, the quality of service is a function of promptness at which client visit the health facility and the skills of the health professional in handling of emergencies and complications (GSS, 2003).

According to GSS (2003), children's survival chances are associated with certain characteristics of fertility behaviour. The key findings are that infants and children have an elevated risk of dying if their mothers are too young (under 15 years of age), and if they are of higher birth order (has three or more children). The 2003 GDHS report by GSS (2003) also revealed that older women are less likely to receive antenatal care from a trained health professional than younger women. Ninety-eight percent of urban residents and 89% of rural residents got antenatal care from a trained health professional. Urban residents are also more likely to receive antenatal care from doctors (34%) than rural residents (14%).

In fact, in Northern Region 83% of labour care is conducted at home. Invariably, women's level of education is strongly associated with recipient of antenatal care from a health professional. Yet 86 % of women as against 66% men cannot read and /or write in English (GSS, 2003).

With the concerns about the developmental challenges of maternal and child morbidity and mortality in Ghana, the NPC developed strategic framework for communicating reproductive health, child health and population and development as three vitally linked variables of human survival and sustainable health and livelihood seeking. The RH strategic thrusts focused largely on access to RH information and services, especially among rural people, and male involvement as partners with women in promoting maternal health. The child health strategic thrusts focused largely on immunization, use of ORT, breast-feeding, good nutrition, and promotion of correct and prompt management, and prevention, of malaria and related infections and infestations, among children.

Impact of poverty on maternal and child health

In his studies on poverty and maternal health care utilization in Maharashtra (India) that explored associated influences on infant morbidity and mortality, Nwoke (1992) found that people living in poorer households in rural and urban areas have a lower utilization of MHC services than those in the higher socio-economic strata. The low level of these services is said to be associated with increased neonatal mortality. They concluded that infants living in lower socio-economic groups in rural and urban areas have an increased risk of poor nutritional status and neonatal mortality. The above

findings suggest that some differential utilization of MCH exists between socio-economic groups.

In Northern region where this study is focused, poverty level is 70% and total fertility rate is highest in the country (7.0 children per woman) and as many as 86% of women are not able to read and write in English (GSS, 2003). The physical, social, psychological and economic consequences and implication on national development and family prosperity are obvious. It has equally been found in the 2003 GDHS report that 83% of women in Northern region deliver at home, largely under non-professional supervision. For a region that occupies approximately 30% of total land mass of Ghana (WHO, 2006) with poor road network, labouring women travel long distance under unsafe circumstances, thus complicating the labouring process.

The effect of poverty on child health and development has been studied extensively by Aber, Lawrence, Conley, Jiali, and Neil (1997). According to them poverty has been shown to negatively influence child health development along a number of dimensions of which poverty is paramount. They found that nearly half of poor young school children lived in household with incomes less than one-half of poverty line. Alarmingly, extreme poverty among a nation's youngest children appear to be increasing than the overall rate of poverty among all children and appears less sensitive than poverty or near-poverty to cyclical change in the economy. To them, an important indicator of society's development is the mortality rate among infants.

Trends in infants' mortality in the United States clearly reflect the existence of two societies. The mortality rate among black infants (15.6 per

1000 live births) in 1994 was well over twice than among whites and Hispanic babies (6.6 and 6.4 per 1000 births respectively). They concluded that poverty occurring early in childhood (prenatally) may cause developmental damage that affects its victims for years to come, and that poverty is not the absolute factor in determining infant and child growth, development and general well-being.

Figure 1 presents a suggested model for investigating the effects of poverty on child outcomes. As may be evident, there is room for a great degree of variation in mechanisms analyzed while maintaining a core set of controls. For example, occupation may include prestige scores and current work status (for one or more parents). Single parenthood, for instance, can be conceived as a measure at a single point in time or using a richer, time-varying formulation that takes into account the dynamic nature of contemporary family life.

| **Control variables** **Parents' education** **Maternal age at birth of child** Single parent Household Sex of child Parity **Economic variables** Income-needs ratio Net worth Occupation | Birth weight or gestational age | **Parent Behaviour** Expectations/aspirations Home scale Discipline style Warmth/quality of interaction Educational environment | **Cognitive development** **Physical health** **Mental health** |

Figure 1: Basic model for investigating the effects of poverty on child health and outcomes
Source: Aber, Lawrence, Conley, Jiali & Neil (1997)

Convergence on the usage of a standard set of control variables may not be easy to achieve in the near future given the interdisciplinary nature of child health and development research. However, the need for adequate controls (even if there is some variance on how they are operationalized) is something that each researcher designing his/her study should keep in mind from the survey and sampling stage to the final analysis and presentation of results.

This is not to suggest that in the meantime research should not be conducted unless it corresponds to the model presented here (or one like it), but merely that researchers should be cautious in assigning explanatory value in child outcome measures to "poverty" rather than, for example, low educational levels of parents.

Once a convergence is reached on the net and correlation effects of poverty on a variety of indicators, the task ahead is to decompose this effect further and to explore the interaction of poverty with other disadvantageous conditions and behavioral variables (again see Figure 1). This may lead to studies ranging from participant observation in poor communities to continued survey and epidemiological research to laboratory experiments attempting to uncover the effects of social inequality on biochemistry and immune response.

Utilization of maternal health care service

According to Kausar, Griffiths and Matthews (1999), people living in poorer households in rural and urban areas have a lower utilization of maternal health care services than those in the higher socio-economic status. Similarly, infants living in lower socio-economic groups in rural and urban areas have an

increased risk of poor nutritional status and neonatal mortality. The findings in this literature source portray a strong urban-rural dichotomy in nutritional status. An interesting conclusion emanating from their study is that rates of infant mortality are much higher in poorer sectors of urban areas, suggesting that some differential utilization of maternal health care exist between socio-economic groups.

The findings of Madise and Diamond (1996), Mathews and Diamond (1997) and Stephenson (1998) attest to the findings of urban-rural dichotomy in child health and survival and utilization of maternal health care in developing countries. Previous studies have shown that the uptake of maternal health care in developing countries has significant consequences for both the transition of the mother through the pregnancy and childbirth, the survival and health of child during early infancy (Khan, 1987).

According to Montgomery and Hewett (2004), households living standards have a substantial influence on three measures of health; unmet need for modern contraception, Birth attended by nurses, doctors or trained midwives and children height for age. They concluded that both household and neighbourhood standards can make a substantively important difference to health.

Challenges of maternal and child health delivery services

Despite the benefits of MHC, many women in India do not receive prenatal care at all, and the care that is received is often characterized by an insufficient number of visits timed late into pregnancy (WHO, 2006). Furthermore, the delivery care utilized in India is dominated by home birth

either in the natal or the marital household. Hence, high-risk pregnancies are often identified, obstetric histories are ignored, opportunities for trans-family planning messages are missed and important information on child nutrition and health care is not disseminated to a large population.

In the light of the above literature, the fact that 83% of labour in northern region is conducted at home and 7.7% use modern contraceptives (GSS, 2003) one can perceive the obstetric future of women and poor nutritional and survival perspective of children. Recent research in the 1980s and 1990s has revealed a great diversity in the extent and depth of poverty within the urban sector in developing countries.

Harpham, Lusty, and Vaughan (1998) argued that the depth of poverty is worse in deprived city slums than in rural communities. Recent policies present a more diversified stance on the rural-urban dichotomy with regards to nagging effects of poor maternal and childcare services (Rossi-Espagnet, 1994). According to Rossi-Espagnet, environmental pollution, which is a widespread problem for all urban people, affects the poorest more severely, since most of them live at the periphery of the city where manufacturing and processing plants are often built.

Access to maternal and child health service

The effects of maternal health care (or access to care) on subsequent wellbeing and mortality risks in the early, infant period has particularly been documented in previous Indian studies (Thaver & Bhutta, 2006). The further findings are that the health seeking behaviour of individuals and family is critical in determining maternal and child morbidity and mortality. Care

seeking behaviour has been strongly associated with such factors determining maternal and child health (Ramasubban & Singh, 1999). In essence, the outcome variables on the issues of maternal and child health status will be a function of the consideration of the cumulative effects of use versus non use of antenatal care. Women who receive too few antenatal care visits timed in appropriately within their pregnancies can be identified and the risk factors associated with these modeled, in a maternal health care indicators (Park & Park, 1989).

The WHO (1992) estimates that 88-98% of pregnancy-related deaths are avoidable. The affirmed stance of Kausar et al. (1999) is that women who receive some form of schooling also have higher probability of using antenatal care services and have relatively lower risks of experiencing maternal deaths, and deaths of their infants and children, than their illiterate counterparts. The issues of whether poverty impacts directly on quality of maternal and child health; whether poor maternal and child health invariably compounds poverty situation; and the intricacy of these variables remain critically situational.

Summary

As stated in the introduction, increasing attention has been paid to issues of socioeconomic inequality early in the life-course. Poverty occurring early in childhood (or prenatally) may cause developmental damage that affects its victims for years to come. Despite the recognition of this problem, the ever-increasing base of literature on the subject suffers from some general methodological limitations. Although most scholars believe that there is a negative influence of poverty on children's health status and cognitive

development, there is no clear consensus on how poverty should be operationalized. Researchers are beginning to recognize that poverty is not a single variable, but rather, can (and should) be represented in a variety of ways with respect to the resources it takes into consideration (e.g. considering wealth as well as income) and the period over which it is measured (e.g. multiple year averages).

Beyond measuring poverty in a more comprehensive way, there remain other thorny methodological issues in the child health and development literature. First and foremost is the lack of a standard set of control variables. Some researchers control for occupation, education level, and family structure, whereas others do not; until a common set of controls is used in the vast majority of studies, study comparison and meta-analyses will be futile. In order to take the next step — decomposing the causal pathways by which poverty affects child outcomes — the literature must first converge on a standard for statistical controls to determine the "true" effect of poverty. While some research that uses sibling comparisons or other fixed effects models automatically controls for poverty correlates (even generally unobserved ones), most child health studies lack even a complete set of control variables — let alone a way to factor out unobserved correlates of poverty.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter deals with the methodology adopted for the study. It covers the research design, the study population, sample size and sampling procedures, and methods of data collection and analyses.

Study area

The study was conducted in the Tamale Metropolis of Northern Region. Tamale is the country's fourth largest city (GSS, 2003) and it is the nerve centre of all commercial activities in the northern sector. It is said to be the fastest growing city in Ghana. Tamale is an incredible juxta-position of the ancient and modern, all of these have serious implications on reproductive health and maternal and child health.

The total population for Tamale Metropolis was 293,881 disaggregated by sex as 146,979 males and 146,902 females. The Metropolis has a total of 24 health facilities. These are: Tamale Teaching Hospital, Tamale Central RCH Clinic, West Hospital, Central Hospital (Old), Bulpela Health Centre, Industrial Area Clinic, Nyohini Health Centre, Bagabaga Clinic, Garizegu Clinic, Choggu Health Centre, Kalpohin Health Centre, Vitting RCH Clinic, Deaha Maternity Home, Fulera Maternity, Haj. Adam Clinic, Rabito Clinic, Shekhinah Clinic – Gurugu, Shekhinah Clinic – Wamale, SDA Clinic, As-

Salam Maternity Home, Tania Specialist Hospital, Suglo Special Clinic, God Cares Community Hospital, and Kabsad Clinic. The Metropolis also has a total of 32 doctors/medical assistants and 414 nurses/midwives (see Appendix C).

In the 2000 census, about 43.0% of the population aged 15 years and above in Tamale Metropolis were classified as literates. In Northern Region, the literate population is 12.0% higher among males than females, the largest difference being in the Tamale Metropolis (19.0%). However youth literacy is 62.7% in Tamale Metropolis, against the regional average of 35.7% (GSS, 2003).According to the 2003 Ghana Demographic and Health Survey (GDHS) report (GSS, 2003), 86% of females and 66% of males in Northern Region cannot read and write in English.

According to GSS (2003), 84% of the population practice Islam, 1.6% practice Traditional religion and 13.7% are Christians. Polygamy is largely practiced and stand at 52% in 1998 reducing to 29% in 2003 (GSS, 2003). In terms of marital status, the Metropolis has female household headship of 20.1% against the regional figure of 14.1%. Over 59.7% of the people are married, 27.7% never married, 1.8% in consensus union, 1.1% separated, 3.1% widowed and 2.7% divorced. Occupations of the economically active population vary from 29.1% in agricultural (39.6% males and 16.9% females) to 39.4% clerical and related workers and 24.3% in services/retail business, among others. Generally, 70.2% are self-employed, 18.8% are employees and 5.2% are unpaid workers (GSS, 2003).

The profile of educational, demographic and socio-cultural variables peculiar to Tamale Metropolis and Northern Region have direct and indirect

influence on the quality and quantity of maternal and child health situations in the region.

Study design

The study was a descriptive one that reported the perceptions and practice of men and women in the fertility age with regard to the effect of poverty on maternal and child health.

The study was however conducted using the cross-sectional sample survey method. Critical analyses of the explanations of cross-sectional survey by Manion and Cohen (1990), Best and Kahn (1991), Borg and Gall (1983), Sproull (1988) and Creswell (1994) suggest that cross-sectional surveys describe the phenomena under investigation in a wider coverage within a short period of time using largely interviews and questionnaires as investigative tools. Their viewpoints were appropriate for this study that had limited time frame to be conducted and as such sufficient data were gathered using structured interview schedules and questionnaires for community members and health service providers in reproductive and child health units respectively (See Appendix A).

Population

According to GSS (2003), Tamale Metropolis had a population of 293,881 disaggregated by sex as 146,979 males and 146,902 females. The target population consisted of men and women in fertility age and trained reproductive health service personnel. The population of Women In Fertility

Age (WIFA) 15-49 is 78,928 and men in fertility age 15-59 are 71,982. In all, 24 health facilities (see Appendix C) were targeted for the study.

Sample size and sampling procedure

According to GSS (2003), Tamale Metropolis has 139 communities with a total population of 293,881 and for the purposes of this study, the communities have been zoned into 5 as Zone A, Zone B, Zone C, Zone D and Zone E based on availability and adequacy of health facilities. A sample consisting of 320 health service recipients were selected through stratified random sampling procedure for reasons of time and cost and 80 reproductive health service providers selected through purposive sampling (see Appendix C).

According to Kidder (1981), the basic assumption behind purposive sampling is that with good judgment and an appropriate strategy, one can hand pick the cases to be included in the sample and thus develop samples that are satisfactory in relation to one's needs.

Sproull (1988) defined purposive sampling as follows "A non-random sampling method in which the sample is arbitrarily selected because characteristics which they possess are deemed important for the research".

The sample size was determined by the size of population using the confident interval of 95% with the accuracy rate of plus or minus five percent (5%). To achieve a fair representation, Zone A had a total population of 10,889 out of which 5,526 were males and 5,363 females and total number of men and women in fertility age is 2,967 males and 2,628 females. Out of the target population, 8 males and 7 females were selected from Zone A. This was

achieved by dividing the target population for Zone A (i.e. 5,595) by the total target populations for all the five Zones (i.e. 150,909) and multiplying the resultant figure by the sample size (400). The procedure was applied to all the five Zones to arrive at the total number of respondents (209 males and 191 females) as shown in Table 1.

Zone B had a total population of 27,905 out of this, 13,921 are males and 12,984 females. The men in fertility age are 7,476 and the women in fertility age are 6,852. Out of this, 20 males and 20 females were selected from Zone B.

Zone C had a total population of 23,737, out this, 12,083 males and 11,654 females. The men in fertility age were 6,489 and women in fertility age were 5,710. Out of this, 17 males and 15 females were selected from Zone C.

Zone D had a total population of 161,634, out of this, 80,472 are males and 81,262 are females. The men and women in fertility age are 43,213 and 39,818 males and females respectively. The number samples were 114 males and 106 females.

Zone E had a total population of 69,616, out of which 34,977 are males and 34,639 females. The men and women in fertility age were 18,783 and 16,973 males and females respectively. Fifty males and 45 females were sampled.

In all, a total number of 209 males and 191 females were interviewed. This represents a response rate of 100%.

Table 1: Communities and target populations

Zones	No. of Communities	Total Population	Target Population	Sample Size Male	Female
Zone A	27	10,889	5,595	8	7
Zone B	28	27,905	14,328	20	18
Zone C	28	23,737	12,199	17	15
Zone D	28	161,734	83,031	114	106
Zone E	28	69,616	35,756	50	45
Total	139	293,881	150,909	209	191

Source: GSS, 2003

The 80 RCH providers comprised 12 medical doctors and medical assistants and 68 midwives and allied health workers. The following considerations were made before the selection: the researcher considered the work experience of each staff in the profession, secondly, the number of years this staff has worked in a particular health facility and lastly whether the duty of the staff is related to maternal and child health. This gave the researcher a better outlook, because it made the sampling procedure to fit the objectives of the work. Appendix C is the breakdown of the medical facilities selected, the sample population and the professional status of the sample.

Instruments for data collection

Two instruments were used for data collection. These consisted of an in-depth interview schedule used to obtain data from men and women in the fertility age within Tamale Metropolis. This constituted the major instrument used to collect data. A questionnaire was also used as a supporting document to obtain data from Reproductive and Child Health Service providers. The use of these instruments was intended to obtain a mix of qualitative and

quantitative data necessary for deriving reliable and valid findings and conclusions.

Interview schedule for the main data were administered directly on service recipients within the target communities of the Metropolis. The sampled respondents were interviewed individually and their responses were recorded immediately to avoid data loss. As much as possible convenient times and places were determined jointly with each interview sessions taken an average time of 30 minutes since a lot of probing had to be done. A high degree of confidentiality was established in each case, and this in addition to the in-depth explanation of the rational of the study led to a higher response rate of 100% on the whole.

In designing the instruments, the purposes and objectives of the study served as standard reference points for standard items for selecting items with the aim of ensuring the validity of the instrument and the study as a whole. An item pool was composed, following which each item was assessed for its appropriateness to the study. Headings were carved out of the five main objectives of the study.

Each questionnaire and interview guide had enough items to address the objective of the study. Each of the instruments had five headings – one on demographic data such as age, sex, education and marital status while other four headings were based on the five main objectives of the study. The items included Likert-type rating scales, dichotomous response patterns and a blend of other close ended and open-ended items that provided a good mix of quantitative and qualitative data.

Validity and reliability of the study

Establishing validity and reliability of a study enhances its authenticity thereby making it a useful document for policy formulations, programme designing and other intervention strides. According to Kidder (1981), a reliable measure has a small error component and does not fluctuate randomly from one moment to the next, and that it relates to the consistency of the study. In the view of Krothari (1991) reliability focuses on accuracy, precision and consistency of the measurement procedure.

In terms of validity, Borg and Gall (1983) relate it to the truthfulness of the study in that it describes the extent to which the study measures what it was actually designed to measure or investigate.

To establish validity of the study, the researcher adopted steps such as:

- Establishing objectives that truly reflect the focus and purpose of the study. These objectives were established following rigorous literature review and critical analyses of the issues of poverty and maternal health;

- Pilot study was conducted on 50 respondents in Yendi. The distribution was as follows: 30 community men and women in the fertile age and 20 service providers. Yendi was chosen because it is the next most urbanized community in the Northern region, and as such closer in characteristics to Tamale Metropolis the study setting;

- Relevant literatures were reviewed to make for realistic discussion;

- The respondents were carefully selected so that data produced were as much as possible, from credible sources;

- The instruments were subjected to critiquing both the study supervisor and others. This led to some modifications as improvement on the quality of the instruments; and

- For the Likert-type items, internal consistency method of item analyses was used to work out correlation co efficiency for each item against the total scores. Items that correlated well were retained in the item pool, and rest eliminated or modified.

For this Instrument, correlated values (Pearson Product Moment) that exceeded 0.469 as statistically determined were significant and were included in the final questionnaire item pool. Kidder (1981) justified the use of Likert-type scales in research by stating as follows: "Despite the lack of theoretical rational for scalability, however, pragmatically the scores on the Likert-type questionnaire often provide the basis for rough ordering of people on the set of characteristic being measured". This affirmed stance of past researchers informed the choice of this scale for data gathering.

The study was conducted step by step in a logical flow. Also, items were simplified or otherwise explained to make for uniformity in meaning for better responses and perception of issues revised. Reliable sources were also used in reference for both the table and the mainstreamed literature reviewed.

One week was used for the interview session since five trained research assistants were recruited to help the main researcher (student).In the supporting data, the questionnaire were distributed by hand to the service providers and it was established that each respondent had clarification with regard to the responses expected of them. It was not necessary to use mailing process since both the researcher and the respondents were located in the same

Metropolis. However, each time a respondent was visited to ascertain the level of responses made so far, a fresh questionnaire was carried along to fill possible gaps related to questionnaires that were mislaid. Five such cases were observed and addressed .Indeed, a questionnaire returned rate of 100% was achieved, and data obtained were adequately edited before analyses.

Data collection procedure

After the instruments were tested for validity and reliability, they were administered to the targeted samples. Each community was separately contacted to arrange the appropriate time to administer the instruments. The instruments were administered to the targeted samples between 1st and 15th January, 2010. The researcher administered the instruments in person in all the communities. This was done in order to (a) explain the goals of the study; (b) direct respondents 'attention to their rights during the course of the study; (c) clarify the instructions for answering; and (d) obtain a good return rate and more accurate data. In order to ensure successful collection and sorting of the questionnaires, each questionnaire was given a serial number according to the separate schools.

Data analysis procedure

Data collected from both primary and secondary sources were analyzed by subjecting them to in-depth transcription, editing coding and computer processing using the SPSS software. The response of each interviewee were written down and tagged by his research identity. This was done for all the responses and the sampled views were written down and

further, the necessary results given an in-depth analysis. Most often, this proved difficult, because it was tedious comparing the numerous results of interview with each other but this gave the researcher a true picture of the varying perceptions of the respondents. The most used method was comparative analysis, that is, comparing the results for each response.

Field challenges

The field challenges encountered during this study include the following:

Due to the poor nature of roads linking the Tamale Metropolis to other surrounding communities, it was quite difficult getting to some communities at the appointed time to conduct interviews. This therefore forced me to reschedule appointments with other respondents.

Communication with some settler respondents who could neither speak English nor the local Dagbani dialect also constitutes a major problem. One had to engage the services of a translator in most cases at an extra cost.

Another major challenge was the unwillingness of health service providers to grant interviews without verbal authority from their superiors. In most instances, they still ignored the introductory letter from the metropolitan director of health services and insisted on getting a verbal confirmation before they could grant interviews thereby wasting time on bureaucracy.

Some community members were equally reluctant in granting interviews, because they presumed the answers they gave was going to be used against the health service providers who were based in their communities. Even after explaining to them the essence of the study, one had

to still spend precious time prodding and appealing to them to engage in a

discussion.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the results on the effects of poverty on maternal and child health in the Tamale Metropolis. The study was characterized by two main categories of respondents. These were health service providers (people who provide health service for women and children) and health service recipients.

This chapter consists of five parts. The first part assessed the background characteristics of health service recipients and health service providers. The second part examined the causes of poverty in the Tamale Metropolis. The third looked at the state of poverty in the Metropolis, the next part examined maternal and child health services available in the Tamale Metropolis. The fifth part identified the challenges facing MCH delivery, and the sixth part offered some possible suggestions on how to improve MCH delivery and status in the Metropolis.

Background characteristics of respondents

The instrument for this investigation included items related to six characteristics namely age, sex, marital status, number of children ever had and religion. Data have been presented and discussed across the service

recipients and service providers respectively. The outcome of responses has been presented in Tables 2 – 9.

Table 2: Age distribution of respondents

	Health Service Recipients		Health Service Providers	
Age group	Freq.	%	Freq	%
15 – 19	23	7.2	12	15.0
20 – 24	88	27.5	21	26.3
25 – 29	72	22.5	32	40.0
30 - 34	47	14.7	10	12.5
35 – 39	18	5.6	9	11.3
40- 44	21	6.6	1	1.3
45 and above	51	15.9	1	1.3
Total	320	100.0	80	100.0

Source: Field Survey, 2009

The ages of the health service recipients were explored and Table 2 reveals that for the health service recipients, the age range of 15 – 19 had 23 (7.2%) respondents; respondents within 20 – 24 age group represented 88 (27.5%), and those within 25 – 29 represented 72 (22.5%).

On the part of the health service providers, Table 2 shows that majority are aged 15 – 30 years which augers well for health service delivery. Younger staffs are likely to stay for a longer time.

Table 3: Sex distribution of respondents

	Health Service Recipients	
Sex	Frequency	Percentage
Male	190	59.4
Female	130	40.6
Total	320	100.0

Source: Field Survey, 2009

The sex distribution of the respondents is shown in Table 3. Among the health service recipients, 190 (59.4%) were males and 130 (40.6%) were females. The health service recipients' population is therefore representative in terms of sex although the number of female health service recipients compared to that of males was slightly lower which may be attributed to the fact that most female respondents failed to return their questionnaires.

Table 4: Marital status of the respondents

	Health Service Recipients		Health Service Providers	
Marital status	Freq.	%	Freq.	%
Single	136	42.5	29	36.3
Married	168	52.5	47	58.8
Divorced	11	3.4	4	5.0
Widowed	2	1.6	-	-
Total	320	100.0	80	100.0

Source: Field Survey, 2009

The marital status of health service recipients indicate that 136 (42.5%) were single, 136 (42.5%) were married, 168 (52.5%) had divorced and 11 (3.4%) were widowed. On the part of the health service providers, Table 4 reveals that 29 (36.3%) were single, 47 (58.8%) were married, four (5.0%) had divorced and none was widowed. It can be concluded that majority of the respondents are married. Married persons are tied to maternal and child health issues and as such will be able to provide the needed information to achieve the purpose of this study.

The study also explored number of children ever born by the health service recipients. This serves as basis for determining the total fertility rate (TFR), and has implications for child upkeep, family management, wealth creation and sustainability of livelihoods. The number of children ever born by the respondents has been presented in Table 5.

Table 5: Number of children ever had

Responses	Males		Females	
	Frequency	Percentage	Frequency	Percentage
1 – 3	46	25.0	46	33.8
4 – 6	43	23.4	21	15.4
7 – 9	9	4.9	4	2.9
10and above	7	3.8	2	1.8
No child	79	42.9	63	46.3
Total	184	100.0	136	100.0

Source: Field Survey, 2009

Table 5 indicates that 46 (25%) of the male respondents had 1 – 3 children, 43 (23.4%) had 4 – 6 children, nine (4.9%) had 7 – 9 children while seven (3.8%) had children from 10 and above. Seventy-nine (42.9%) however had no child. On the part of the females, Table 5 shows that 46 (33.8%) had 1 – 3 children, 21 (15.4%) had 4 – 6 children, four (2.9%) had 7 – 9 children, two (1.8%) had 10 or more children while 63 (46.9%) had no child. This shows that fertility rate in the Tamale Metropolis is low since majority of the respondents 142 (89.2%) had no child.

Table 6: Religion of respondents

Religion	Health Service Recipients		Health Service Providers	
	Freq.	%	Freq.	%
Islam	279	93.4	51	63.8
Christianity	27	8.4	29	36.2
African Traditional Religion	10	3.1	-	-
Total	320	100.0	80	100.0

Source: Field Survey, 2009

Table 6 reveals that overwhelming majority of the health service providers, 279 (93.4%) practiced Islam, while the respective proportions rated for Christianity were 27 (8.4%), and 10 (3.1%) practiced African Traditional Religion. On the part of the health service providers, Table 6 shows that 51 (63.8%) practiced Islam while 29 (36.2%) practiced Christianity. None of them practiced either African Traditional Religion. Table 6 therefore confirms the findings of Ghana Statistical Service that pegged Tamale Metropolis as 84.0% practicing Islam, 13.7% practicing Christianity and 1.6% practicing Traditional Religion (GSS, 2003).

Table 7: Educational level of health service recipients

Responses	Males		Females	
Educational level	Freq	%	Freq.	%
No formal education	52	27.4	41	31.5
Primary only	12	6.2	8	6.2
Middle school / JSS	19	10	9	6.9
Secondary school / SSS	45	23.7	25	19.3
Tertiary	60	31.6	42	32.3
Vocational school	2	1.1	5	3.8
Total	190	100.0	130	100.0

Source: Field Survey, 2009

In Table 7, health service recipients were asked about their educational status. From the Table, 93 (29.1%) had no formal education, 20 (6.1%) had primary education, and 28 (8.8%) had middle school/JSS education. The rest are: 70 (21.9%) had secondary school education, 102 (31.9%) had tertiary education, while seven (2.2%) had vocational school education. It must be noted that the health status of people is determined by their quality of life, level of productivity and longevity. Education on the other hand has been identified as the most important tool in providing people with the basic knowledge, skills and the competencies to improve their quality of life at all levels of development. Thus, the health and the education status of the people are directly linked to the general state of development of a country. It is therefore not surprising that health and education issues have featured prominently in the millennium development goals (GSS, 2003).

Table 8: Main economic activity of health service recipients

Responses	Males		Females	
	Freq.	Percentage	Freq.	Percentage
Public sector employment	61	32.1	24	18.4
Private employment	30	15.8	34	26.2
Food crop farmer	29	15.3	12	9.2
Unemployed	70	36.8	60	46.2
Total	190	100.0	130	100.0

Source: Field Survey, 2009

The study also determined the economic activities of the health service recipients and Table 8 shows that the largest proportion of the male health recipients 70 (36.8%) as well as their female counterparts 60 (46.2%) were unemployed, while significant proportions of males 61 (32.1%) and females 34 (26.2%) were engaged in private employment.

Table 9: Background of health professionals by professional status

Status	Frequency	Percentage
Community Health Nursing	18	22.5
Staff Nurses	13	16.3
Midwives	37	46.2
Medical Officers/Medical Assistants	12	15
Total	80	100.0

Source: Field Survey, 2009

The study determined the staffing mix of the health service providers, and the results have been presented in Table 9. The data indicate that, majority, 37 (46.2%) of health professionals are midwives. Practically, midwives are directly engaged in services that promote maternal and child health. The least number of health professional falls under the category of medical officers and medical assistants numbering 12 (15.0%). This is indicative of the fact that there are few medical officers in the entire Tamale Metropolis.

Poverty in Tamale Metropolis

Considering the upper poverty line of GH¢ 370.89, the proportion of the population of Ghanaians defined as poor fell from 51.7 percent in 1991/92 to 39.5 percent in 1998/99 and further to 28.5 in 2005/2006. Ghana has received impressive economic growth that has yielded high per capita economic growth rates since 1991/92 (GSS, 2003). From Table 10 while 198 (61.9%) of the health service recipients indicated that the level of poverty in the Tamale Metropolis was very high, 98 (30.6%) of them indicated that poverty level in the Metropolis was high. On the contrary, 22 (6.9%) indicated that the poverty level in the Tamale Metropolis was low. This outcome is in line with a report by Government of Ghana (2007) which indicates that the scope of poverty in Ghana is characteristically to the disadvantage of Northern Ghana. This was confirmed in the outcome of a study conducted by the Government of Ghana which revealed that 90% of the population in the Upper East Region, and 80% and 70% for Upper West and Northern Regions respectively are poor.

The poverty situation has not improved in Tamale over the last few years. The views of the health service recipients were not different from that of the health service providers.

Table 10: Level of poverty in the Tamale Metropolis

Responses	Health service recipients		Reproductive health service providers	
	Frequency	Percent	Frequency	Percent
Very high	198	61.9	21	11.3
High	98	30.6	36	45.0
Low	22	6.9	14	17.5
Very low	2	0.6	9	11.3

Source: Field Survey, 2009

Table 10 indicates that while majority 36 (45.0%) indicate that poverty was high, 21 (26.3.0%) held that it was very high. On the contrary 14 (17.5%) and nine (11.3%) respectively indicated that poverty in the Tamale Metropolis was low and very low.

The results also show that a greater proportion of population has not seen any positive change in their lives with regards to their poverty status. This is suggestive to the fact that, the current policies and strategies that exist to curb the menace of poverty are still left crawling despite the growing need to eradicate it. However, UNFPA (2005) believes that the world has an unprecedented opportunity to make poverty history. It states that "pragmatic actions and resolute steps may be involved to make poverty history and indeed foster positive maternal and child health" (p. 47).

Causes of poverty in the Tamale Metropolis

This section examines main causes of poverty in the Tamale Metropolis. The health service providers were therefore asked to indicate the factors that lead to poverty in the Metropolis (Table 11).

Table 11: Causes of poverty by health service providers in the Tamale Metropolis

Responses	Frequency	Percentage
Illiteracy	27	33.8
Unemployment	42	52.5
Laziness	9	11.2
Polygamy / large families	2	2.5
Total	80	100.0

Source: Field Survey, 2009

Table 11 shows that 27 (33.8%) health providers indicated that illiteracy and unemployment are the major causes of poverty in the Tamale Metropolis. The outcomes of Table 11 therefore confirm stance of Aber, Lawrence, Conley, Jiali, and Neil (1997) that it is difficult to disentangle poverty from the family structure, education and occupational security.

Availability of MCH services in the Tamale Metropolis

The researcher was also interested in finding out the availability of MCH services in the Tamale Metropolis. In this regard Research Question 3 was formulated. This section of the study therefore sought to find out from the respondents the availability of services provided by the MOH in Tamale Metropolis. Table 12 indicates the outcome of the responses. The researcher was conscious of the fact that it takes quality human and material resources to render quality health care to clients. With this in mind, it was expedient to determine the quantity and quality of structures, equipment, materials and other materialism in health delivery units. Table 12 indicates that 169 (52.8%) of health services recipients and 57 (71.3%) of health service providers were of the assertion that there is a serious lag when it comes to health structures like hospitals and or clinic. In order to meet the desired goal of maternal and child services, it is expected that there be enough equipment, facilities and personnel which from this research is wholly inadequate.

Table 12 also shows that 162 (50.6%) health service recipients and 32 (40.0%) health service providers were of the view that trained health professionals were available. On the other hand, 158 (49.4%) and 48 (60.0%)

health service recipients and health service providers disagreed on the availability of trained health professionals in the Metropolis.

On availability of drugs at the health facility units, Table 12 shows that 147 (63.8%) of health service recipients and 51 (63.8%) health service providers indicated that drugs are available at the health facility units while173 (54.1%) and 29 (36.3%) of both health service recipients and health service providers shared that drugs are not available at the health facility units.

The health service recipients and health service providers held different views with regard to the availability of NHIS. While majority 172 (53.8%) of the health service recipients indicated that NHIS scheme was not available in the Metropolis 148 (46.3%) of them indicated that it is available. On the part of the health service providers all the 80 (100.0%) respondents indicated that NHIS is available.

Table 12: Availability of MCH services in the Tamale Metropolis

Responses	Health Service Recipients				Reproductive Health Service Providers			
	Available		Not Available		Available		Not Available	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
1. Equipment of hospitals/clinics and service delivery.	151	47.2	169	52.8	23	28.8	57	71.3
2. Trained health professionals.	162	50.6	158	49.4	32	40.0	48	60.0
3. Adequacy of drugs	147	45.9	173	54.1	51	63.8	29	36.3
4. National Health Insurance Scheme	148	46.3	172	53.8	80	100.0	-	-

Source: Field Survey, 2009

The relationships between poverty and maternal and child health in the Tamale Metropolis

The researcher also sought to explore the relationship between poverty and maternal and child health in the Tamale Metropolis. Research question 4 was formulated to seek the views of the respondents. The outcome of the respondents is shown in Table 13.

Table 13 shows that 172 (53.8%) of the health service recipients and 59 (73.8%) of the health service providers believed that health seeking behaviour of individuals determines maternal and child morbidity and mortality. This was different from the views of 148 (46.3%) and 21 (26.3%) of health service recipients and health service providers who claimed that there is no relationship between poverty and maternal and child health.

Table 13: The relationships between poverty and maternal and child health in the Tamale Metropolis

Responses	Health Service Recipients				Reproductive Health Service Providers			
	Yes		No		Yes		No	
	N	%	N	%	N	%	N	%
1. Health seeking behaviour of individuals determines maternal and child morbidity and mortality.	172	53.8	148	46.3	59	73.8	21	26.2
2. Poverty impacts directly on quality of maternal and child health.	194	60.6	126	39.4	73	91.3	7	8.7
3. Poverty has been shown to negatively influence child health development.	245	76.6	75	23.4	69	86.3	11	13.7
4. People living in poorer households have a lower utilization of MCH services than those in the higher socio-economic status.	259	80.9	262	81.8	53	66.2	27	33.8

Source: Field Survey, 2009

With regard to the relationship between poverty and the quality of maternal and child health, Table 13 shows that while 194 (60.6%) health service recipients indicated "Yes", 126 (39.4%) indicated "No". On the part of the health service providers, Table 13 shows that while 73 (91.2%) were in agreement, seven (8.8%) did not support the view. It is further indicated in Table 13 that both health service recipients and health service providers shared that poverty has negative influence on child health development. This is shown by 245 (76.6%) and 69 (86.3%) respectively of both groups. In the views of Isaac and Michael (1990), poverty and low socioeconomic status of the mother's family of origin have a powerful effect through early childhood nutrition. Poverty and low socio-economic status are associated with poor psychological health in women, and psychological ill health and stress have been suggested as one of the pathways by which social disparities in pregnancy outcome arise.

Finally, it is shown in Table 13 that majority of both health service recipients and health service providers agreed that people living in poorer households have a lower utilization of MCH services than those in the higher socio-economic status. Results from Table 13 shows that while 259 (80.9%) health service recipients were in support, 61 (19.1%) did not support the view. On the part of the health service providers, while 71 (88.8%) indicated that people living in poorer households have a lower utilization of MCH services than those in the higher socio-economic status. This was contrary to the views of nine (11.2%) health service providers.

The challenges of maternal and child health service delivery in the Metropolis

It is perceived that the delivery of maternal and child health services in the Tamale Metropolis encounters a lot of challenges. Research Question 5 was therefore posed to find answers from the respondents the challenges that face maternal and child health services delivery in the Metropolis. Table 14 presents the outcome of the responses.

The responses in Table 14 shows that 65 (20.3%) and 12 (15.0%) of both health service recipients and health service providers claimed that there are no cultural barriers against MCH services. Obviously the implication is that there may be other barriers but none is related to culture.

The majority held the view that there are no cultural barriers that exist against MCH services. Conversely, 255 (79.7%) of health service recipients and 68 (85.0%) of health service providers shared the view that there exist some cultural barriers against MCH service. To them, these barriers related to the diet of women and children. The views of the majority therefore disagree with the views of Khan (1987) that most cultures prevent pregnant women from eating eggs. The belief is that, the absence of the eggs in the diet of women prevents unborn children from becoming thieves. But the understanding from the majority of the both respondents is that, this practice no longer exists. The majority indicated that "food taboos" and the "belief in the supreme deity as the only curer" are the cultural challenges that need to be critically dealt with.

With regard to gender barriers in seeking MCH, it is observed in Table 14 that majority 225 (70.3%) and 56 (70.0%) of both health service recipients and health service providers believed that there are no gender barriers in seeking MCH service.

Table 14: Challenges of maternal and child health service delivery in the Metropolis

| | Health Service Recipients | | | | Reproductive Health Service Providers | | | |
| | Yes | | No | | Yes | | No | |
Responses	N	%	N	%	N	%	N	%
1. Culture has barriers against MCH services	65	20.3	255	79.7	12	15.0	68	85.0
2. Sex barrier in seeking MCH services	95	29.7	225	70.3	24	30.0	56	70.0
3. Income is a strong challenge of MCH service delivery	213	66.6	107	33.4	61	76.2	19	23.8
4. Lack of education on MCH services delivery	197	61.6	123	38.4	57	71.2	23	28.8
5. The frequency of childbirth on the health of women	245	76.6	75	23.4	74	92.5	6	7.5
6. Large number of children born to a woman	187	58.4	133	41.6	49	61.3	31	38.7

Source: Field Survey, 2009

However, 95 (29.7%) and 24 (30.0) claimed that there exist to some extent gender barrier in seeking MCH service. But when asked how, the preferred to repeat themselves rather than mentioning how. Perhaps they were raised to belief so but never told how. The researcher also asked the respondents to indicate if poverty or the income level of individuals posed a challenge to MCH service delivery. Out of a sample of 320 health service recipients and 80 health service providers, 213 (66.6%) and 61 (76.2%) respectively confirmed the claim that the income levels of people influenced their health choice, hence posed a threat to MCH service delivery. On this same issue, 107 (33.4%) and 19 (23.8%) health service recipients and health service recipients were of the stance that, the income level of people posed no strong challenge to MCH service delivery. These respondents claim that the presence of NHIS posed no financial debt to people, hence did not stand to challenge MCH service delivery. This confirms the views of Rani and Lule (2004) that income directly influences the availability of food, health care, and housing, financial strain also hinders child development through distinct mechanisms. Because of economic limitations, poor parents have more difficulty providing health and intellectually stimulating facilities.

Views on how education on free maternal health scheme has reached community members were also collected and the findings are in Table 14. It is revealed that 197 (61.6%) and 57 (71.2%) of both health service recipients and health service providers asserted that education has reached community members about the free maternal health scheme. The marketers of this scheme indeed have done a good job and as such education is not a problem to MCH. However, 123 (38.4%) and 23 (28.8%) of both respondents held contrary views.

Kausar et al. (1999) asserted that education is a priority to achieving all health goals.

Evidence from Table 14 also suggests that the frequency of childbirths impact negatively on the health of women. While 245 (76.6%) of health service recipients and 74 (92.5%) of health service providers unanimously responded "yes" to affirm their conviction on this relationship, 75 (23.4%) and six (7.5%) of both respondents thought otherwise. The latter respondents claimed that their grandparents and parents lived longer lives through this system without medical problems. To them, only lazy and career seeking women will associate to this "excuse".

The study determined the impact of relatively larger numbers of children born to a woman on the health status of the children. The controversy was whether or not this posed health dangers to the children, and the data generated have been presented as Table 4. From the Table 14, a total of 187 (58.4%) health service recipients and 49 (61.3%) health service providers supported the assertion that large numbers of children born to a woman pose health dangers to children. This is in support of the view of WHO (2006) that families ought to consider the frequencies and numbers of births for it poses health dangers to both women and children and at large the entire family system. Its latent effects may just be as horrifying as its latent effect which is seen on the death of mothers and their children. This view was however different from the views of 133 (41.6%) health service recipients and 31 (38.7%) health service providers.

Both the Population and Housing Census and Ghana Demographic and Health Survey reports (GSS, 2003) indicated that the Northern region has been in the lead in both wanted fertility and total fertility rates. This explains why the region has been described as living a pronatalist life style.

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Suggestions by health service providers and health service recipients to improve MCH services and delivery status in the Metropolis

This section of the study focused on ways of improving MCH service delivery in the Tamale Metropolis. In this regard, Research Question 6 was formulated. The respondents were therefore asked to suggest ways of improving MCH in the Tamale Metropolis. The outcome is shown in Table 15.

There was a unanimous stand that MCH should be improved. The current status of the scheme is a significant boost to financial standing of the majority of the populace. However, Table 15 indicates that while 213 (66.6%) of the health service recipients shared that the scheme should be enlarged to cater for all possible diseases as long as other forms of treatment of such diseases, 107 (33.4%) did not support this view. This was not contrary to the views of 51 (63.8%) of the reproductive health service providers who supported view of extending the scheme.

Furthermore, it is shown in Table 15 that there was utmost agreement that, more MCH centers should be built in the various communities and not just at the centre or heart of Tamale. The respondents held that people who experience difficulty with regards to accessing health centre as a result of long distance will have this setback solved. This represents 233. (72.8%) and 52 (65.0%) respectively of health service recipients and health service providers although 87 (27.2%) and 28 (35.0%) of both health service recipient and health service providers disagreed.

Table 15: Suggestions to improve MCH services in the Tamale Metropolis

Responses	Health Service Recipients				Reproductive Health Service Providers			
	Yes		No		Yes		No	
	N	%	N	%	N	%	N	%
1. The scheme should be enlarged to cater for all possible diseases.	213	66.6	107	33.4	51	63.8	29	36.2
2. More MCH centers should be built in the various communities.	233	72.8	87	27.2	52	65.0	28	35.0
3. Health service providers should be motivated.	201	62.8	119	37.2	79	98.8	1	1.2
4. In-service training should be embarked on.	178	55.6	142	44.4	15	18.8	65	81.8
5. Public education and campaign should be intensified.	197	61.6	123	38.4	73	91.3	7	8.8

Source: Field Survey, 2009

Also, Table 15 indicates that the both respondents shared that better motivational packages should be made a prior concern to those who accept postings to rural communities. To them, this will help reduce maternal and child deaths. This is indicated by 201 (62.8%) of health service recipient and 79 (98.8%) of health service providers.

In response to question on training needs, majority 178 (55.6%) of health service providers purported that in-service training should be seriously embarked on. They agreed this will improve their human resource relation and further ensure the steady but sacrosanct development of the entire workforce. However, 15 (18.8%) of the health service providers did not support this view. On one hand, the health service recipients suggested that in-service training on Birth Attendants will help alleviate the ailing status of having to rush pregnant women to the hospital. The reason being that, women do trust Traditional Birth Attendants than most midwives because they feel that, they are maltreated by midwives. They also suggested that MCH workers should be trained to be client oriented.

Finally, with regard to intensification of public education and campaign exercises, Table 15 shows that all respondents unanimously agreed that, more efforts should be geared at early detection of risk signs among pregnant women and children and indicated exactly where to seek appropriate care from trained health service providers. Also, campaign and public awareness creation through the media should be promoted. This is shown by 197 (61.6%) of the health service recipients and 73 (19.3%) of the health service providers. On the contrary, 123 (38.4%) and seven (8.8%) of the health service recipients and health service providers respectively indicated "No".

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter is in three parts. The first makes available a brief summary of the findings made in the research conducted pertaining to the objectives. The second highlights the necessary conclusions based on the findings and finally makes recommendations for policy analysis.

Summary

The study investigated the effects of poverty on maternal and child health in the Tamale Metropolis of Northern Ghana. The descriptive survey design was used to collect, analyze and describe the data of the study. A questionnaire developed by the researcher was used to obtain data after which they were analyzed using the Statistical Products for Service Solutions (SPSS version 16) programme. The sample of respondents used for the study consisted of 320 health service recipients and 80 health service providers from the 139 communities in the Tamale Metropolis. The health service recipients were selected through stratified sampling procedure while the health service providers were purposively selected.

The following major findings were revealed.

- Majority of the respondents have had formal education. Most of them, 20 (6.1%) had primary education, and 28 (8.8%) had middle school/JSS education, 70 (21.9%) had secondary school education, 102 (31.9%) had tertiary education, while seven (2.2%) had vocational school education. However, most of them have dropped out of school at primary and middle level and most of those who pursued education up to the senior secondary school level have no plans to continue their education;

- The study also revealed that the main cause of poverty in the Tamale Metropolis is unemployment. This represented majority of 42 (52.5%). The study also revealed other causes of poverty in the Metropolis to include: illiteracy 27 (33.8%), and laziness nine (11.2%);

- It was discovered that the level of poverty in the Metropolis was very high. This is indicated by 198 (61.9%) of health service recipients and 21 (11.3%) of health service providers. This is as a result of lack of available jobs and lack of employable skill to meet the growing needs of the labour market;

- There are less MCH structures to meet the health needs of the entire populace. The quantity of the available MCH centers are seriously lacking, hence putting excess pressure on health workers;

- The hospitals and or clinics are not equipped enough to meet the service delivery task. This again put so much pressure on the existing ones and gradually increased its rate of deterioration. The effect is that, more

equipment is lost than gained. This leaves the delivery system very poor. This represented 151 (47.2%) and 23 (28.8%) respectively of health service recipients and providers. Also, the number of trained health professional in the Tamale Metropolis is rated as standard. They are exactly not too many and obviously not too less. The numbers of health trained professionals on the average rank with the available number of existing MCH centers. But the general observation is that there is gross dissatisfaction over the number of trained health professional. This was indicated by 162 (50.6%) and 32 (40.0%) of health service recipients and health service providers;

- The income level of couples directly affects the quality of maternal and health in the Metropolis. This indicated 194 (60.6%) and 73 (91.3%) of both health service recipients and health service providers. It was also discovered that people living in poorer households have a lower utilization of MCH services than those in the higher socio-economic status, 259 (80.9%) and 53 (66.2%) of both health service recipients and health service providers respectively;

- The frequency of childbirth on the health of women was discovered as the main challenge to quality health service delivery in the Metropolis. This represented 245 (76.6%) and 74 (92.5%) of both health service recipients and providers respectively. This was followed by income level which represented 213 (66.6%) and 61 (76.2%); and

- Finally, in order to improve the provision of quality MCH delivery in the Metropolis, the respondents indicated that more MCH centers should be built in the various communities, 233 (72.8%) and 52 (65.0%) of both respondents. The respondents also indicated that the scheme should be enlarged to cater for all possible diseases. This represented 213 (66.6%) and 51 (63.8%) of the views of both health service recipients and providers.

Conclusions

Based on the findings from the study, the following conclusions have been drawn.

The state of poverty in the Tamale Metropolis is very appalling. This is as a result of lack of available jobs and lack of employable skills to meet the growing needs of the labour market. The main causes of poverty in the Tamale Metropolis are unemployment and illiteracy.

There are inadequate health facilities to meet the health needs of women and children in the Tamale Metropolis. This is as a result never declining rate of maternal and child mortality in the Metropolis. The people of the Metropolis preferred to relate this to the lack of available health facilities for proper service delivery.

The socio-economic status of families is a determinant of the ability to patronage MCH delivery services. The major financial challenges of the MCH delivery service are poverty and or low income level. Further, the unavailability

of the structures, inexplicit MCH policy framework, unavailability of equipment or materials, the frequency and number of child or large families are key problem faced by the MCH delivery service. There is also very few cultural and sex barriers against MCH service. This does not serve as a challenge to seeking maternal and child health service delivery. There are challenges faced by MCH service but none is a measure to culture or sex.

The presence of NHIS has come to alleviate the financial burden experienced by the majority of the populace. Further the entire scheme has been much of a success, despite the fact that it has its own setbacks.

Recommendations

On the basis of the findings of this study, the researcher wishes to make the following recommendation as a redress to the problem of poverty and its manifest and latent effects on maternal and child health.

- Since it was discovered that education is the main challenge to MCH delivery in the Tamale Metropolis, it is recommended that any intervention by government should focus on working with parents so that the importance of education is harnessed from parent to child level. A learning game curriculum will be a step by parents and curriculum planners to provide instructional materials and role playing and other learning experiences. Everything about life begins from home; if government or NGOs can embark on programmes that attempt to educate

parents on the importance for education then, it is most likely that children will develop an interest in education;

- It is also recommended that policy makers should consider a health intervention which aims is to improve the lives of the poor; one that is geared towards eliminating deep and persistent poverty. A policy that will redistribute income in favour of the poor in terms of health benefit from upper class being translated to catering for the health needs of poor folks. The argument is that the current NHIS does not cover some very dreadful sickness experienced by some people. To this the difficulty in paying health bills is still the same. Financial resources must be generated to make the entire NHIS complete or better still health benefits that are enjoyed by the "upper class" should be redirected to the poor to help boost health problems of women and children and the whole populace;

- Physical and social infrastructure adjustments need to be taken care of in the health sector by the government. More health centers that promote MCH delivery service should be built. The policy framework should be made as explicit as possible so that the mission statement of MCH, that is, what it stands to achieve will be known. Also, more professional health worker should be trained to meet the needs of families. This will, in the long run, improve the quality of MCH delivery service; and

- Curriculum planners and educationists should also embark on more directed educational campaigns to sensitize the populace on the packages of MCH delivery services in the Metropolis. Most people do not know

packages of the MCH delivery service. These diverse forms of education should attempt a brain wash exercise on the populace on the ill thoughts about the health service, to enlighten them on the negative effects on self medication and home delivery practices, and finally the importance on the need to value their needs over any other thing. A health digest programme on MCH services on the various northern region languages will help. The aftermath will be reduction in the rather high rate of maternal, childhood and finally pregnancy or delivery related deaths.

Limitations of the study

Notwithstanding the rigorous research methods adopted, the study is likely to be flawed in its findings and conclusions by certain factors stemming from financial constraints, time limitation for the study and naivety of the researcher on the field for research.

- Relatively smaller sample sizes were used across the key cohorts used as target for the study. As such the study findings cannot be said to be truly representative of the target population as would be expected;
- It would have been preferred that the researcher used existing instruments likely to have been subjected to rigorous statistical methods of establishing validity and reliability, among others. The use of self-designed instruments cannot guarantee better items necessary for collecting relevant researcher data; and

- For a study like this that has to do with health and poverty, inferential statistical information would have been preferred to be used to augment the descriptive findings. This would be better information for use by policy makers, technocrats and interventionists in the areas of health and development.

Areas for further studies

It is suggested that this topic should be replicated in other districts, Municipalities and Metropolis in Ghana. Also, a study regarding access and utilization of maternal health services in the Tamale Metropolis should be conducted by other researchers.

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APPENDICES

APPENDIX A

QUESTIONNAIRE FOR HEALTH SERVICE PROVIDERS

(PEOPLE WHO PROVIDE HEALTH SERVICES FOR WOMEN AND

CHILDREN)

Introduction

This study has been designed to determine the effects of poverty on maternal and child health in the Tamale Metropolis. Your participation in this study will contribute in providing the needed data. The responses you give will be treated with utmost confidentiality. Therefore feel free to give frank and complete responses.

Instructions

Please tick (√) the appropriate response category or write your responses on the spaces provided.

Part A: Personal data

1. SEX: Male …………………..…….

   Female………………………………

2. Age …………………………..……

3. Health professional status …………

4. Ethnicity …………………………..

5. Religion ……………………………

6.   No. of years of working experience of respondent in the health profession

……………………………………………..

7.   Marital status …………………

8.   Specific place of work …………

Part B: State of poverty in Tamale Metropolis

9.   How   would   you   explain   poverty?

....

10.   What, in your opinion is the depth of poverty in Tamale Metropolis?

Very high ..   High.…   Average…   Low …   Very low ….

11.   What accounts for the level of poverty in the Metropolis? ……………

12.   Does the health seeking behavior of the people relate to their level of

poverty?

Yes …   No ……   Don't know ….   Explain your answer……

13.   State some poverty indicators in the Metropolis ………………………

14.   What policies do you know exist to reduce poverty ………………………

15.   What proportion of the people in Tamale Metropolis would you say live

below the poverty line? ……………………………………………………………

Part C: Effects of poverty on nutrition and health of women and children

16.   Does the income level of couples have significant influence on the nutritional

status of:

    a. The children?   Yes …   No …   Explain ………

b. The women?   Yes …   No ….   Explain ……….

(Please provide support data if available)

17.   Is poverty an important reason for low patronage of MCH services?

Yes …………….   No …………….

18.b Explain ……………………………………………………………

18.   What problems do you face when people identified to be poor report at your health delivery point to access services?

....

19.   Rate the following Health facilities with regard to how poverty adversely affects their patronage by community members.

Use 1 – 5, 1 being low and 5 being high

Please tick (√) the appropriate figure in each case.

Health Facility		Rating of Adverse Effects				
I.	Ante natal services	1	2	3	4	5
II.	Child welfare clinic	1	2	3	4	5
III.	Delivery at Hospitals	1	2	3	4	5
IV.	Nutrition centre	1	2	3	4	5
V.	Mass immunization centers	1	2	3	4	5
VI.	General OPD reporting	1	2	3	4	5

20.   Which diseases would you rate as Top 10 reported at the OPD?

21.   Which diseases would you rate as Top 10 causes of death in the Metropolis

(Please provide secondary data from health delivery points if available)

22.   Has the National health insurance scheme (NHIS) reduced the financial burden on clients?

   Yes …   No ……   Don't know …………..

23 a. If Yes, How ………………………

23 b. If No, why ………………………….

24. Rank the following with regard to how you perceive them to be accounting for low patronage of MCH services [use 1-3] in ranked order.

   I.   Poverty ……………………..

   II.   Misplaced priority …………………

   III.   Ignorance …………………………….

   IV.   Explain……………………………………………………………………

25. Would you say poverty is the main reason for people indulging in self-medication?

          Yes ………   No ………   Don't know …………..

25 a. If Yes or No, Explain ………………………………….

26. Why are some children rushed to the Health facilities at critically-ill states?

27. Why is home delivery observed to be very high in Tamale Metropolis?

28. What are the observed differences between younger girls and older women in fertility age with regard to accessing MCH services?

Part D: Quantity and quality of MCH services in Tamale Metropolis

29. Are there enough health facilities to meet the health needs of women and children in the Metropolis?

 Yes ………………. No ……………….

29 a. Explain …………………………………………………………………..

30. List some of the facilities available in the Metropolis for MCH services

31. Are the Hospital/clinics well equipped enough to meet the service delivery tasks?

YES…………. NO……………

31.a. Explain……………………………………………………………………………

32. What would you say about health personnel at the centers with regard to?

a) Numbers and mix (categories) (b) Efficiency of service delivery…

c) Effectiveness of service delivery

d. Attitude to work……………………………………………………………

33. Do clients co-operate with health service providers in the therapeutic process?

 Yes ……… No ……… Somehow ………………………….

33 a. Explain ……………………………………………………………………

34. What Comments do you have about the following health indices in the Metropolis?

 a. Child Health and Deaths. b. Maternal health and deaths

 35. Is the free maternal health service scheme truly operational?

 Yes … No …

35 a. Explain ……………………………………………………………………..

36. What are the major health's promotional strategies adopted in the Metropolis?

37. How frequent is in service education provide to MCH service providers?

38. What is your general rating of quality of MCH services in the Metropolis?

   Very good...   Good   Bad   Very bad

39. What plans does the metropolitan health unit for improving of MCH services?

Part E:-Challenges facing MCH delivery

40. State in ranked order, three key challenges of quality MCH service delivery in the Metropolis?

   I.   ……………………………………………………………………………
   II.   ……………………………………………………………………………
   III. ……………………………………………………………………………

41. What are the specific cultural issues confronting MCH delivery?

42. How would you rate the following MCH challenges

a.   Availability of structures

Very strong   Strong   Weak   Very weak

b.   Services at the MCH centers

Very effective   Effective   Ineffective   Very ineffective

c.   MCH policy framework

Explicit   Not explicit

d.   Community- health facility relationship

Very strong   Strong   Weak   Very weak.

43. What are the most frequent reported maternal illness?…………………....

44. What are the most frequently reported illness of children

45. What are the major causes of death of women in pregnancy and child birth process?

46. Is poverty a strong challenge of MCH service delivery?

    Yes   No

46.a. Explain

47   How can the poverty level in the Metropolis be addressed?

48. In your opinion, is it likely that maintaining smaller family size will improve MCH status of women and children?

    Yes …   No …   Uncertain …

48 a. If yes or no explain…………………………………………………….

49. Please feel free to offer further suggestions for the improvement of MCH service delivery and status in the Metropolis.

STRUCTURED INTERVIEW SCHEDULE FOR COMMUNITY

MEMBERS (HEALTH SERVICE RECIPIENTS)

Introduction

This study has been designed to determine the effects of poverty on maternal and child health in the tamale Metropolis.

You have been selected as a key respondent to issues of this study.

Your responses will be treated confidential and as such your frank and complete responses solicited.

Do I have your permission to continue with the interview?

Yes [ ] (continue with the interview)   No [ ] (end the interview).

Part A: Personal data

1. SEX: Male…   Female……

2. Age: 15-18,   19-22,   23-26,   27-30

          31-34,   35-38,   39-42,   43-46,   47 above

3. Community…………………………………………………………………………

4. Educational status

No formal education …… Primary only………… Middle school/JSS…………

Secondary/SSS………   Tertiary level………   Others (specify)…………

5   Marital status:

          Single. ……   Married……   Divorced/Separated……..

          Widowed……   Other (specify)………….

6   No. of children ever had……………………………………………………

7   No. of living children……………………………………………………

8   Main economic activity:

     Public sector employment   Private formal employment…………

     Private informal employment….   Export farmer ………………………

     Food crop farmer ………   Non-farm self employed …….……..

     Non –working…   Other (specify)………………...……

9   Ethnicity

10   Religion:

     Islam……….   Christianity (specify denomination)……….

     Traditional ……   Other (specify)…………………………..

Part B: State of poverty in Tamale Metropolis

12.   Who is a poor person?

13.   How do you perceive the level of poverty in Tamale Metropolis to be?

Very high……   High…… Low…   Very low…

14.   Which would you say is generally poorer:

     Males……..   Females ……   Both the same……

15. How would you classify yourself in terms of wealth and poverty?

     Very poor …   Poor…   Rich …   Very rich …

  16. What is your house hold poverty status?

Very poor……   Poor …   Non- poor…

  17. Ownership of different physical assets.

[Tick more than one if applicable]

Radio   ( )   Sewing machine   ( )   Electric stove ( )   Gas stove

( )   Kerosene stove   ( )   Refrigerator   ( )   Freezer   ( )

Fan   ( )   Video   ( )   Satellite TV   ( )   Television ( )

Camera   ( )   Iron (electric)

Bicycle   ( ) Car   ( )   Motor bike   ( )   Mobile phone ( )   Tractor

( ) Grinding mill   ( )   Other [specify]   Ownership of jewelry Holland

cloths   ( )

   18. Place of residence

Rented …who pays the rent …   Own house …   Family outfit …   Other

(specify)

   19. Main source of drinking water

 Inside Pipe ( ) Water venders ( )   Neighborhood/private ( )   Public stand

pipe ( )

Borehole ( )   Well   ( )   Natural source ( )   others (specify)……

   20. Source of electricity………………………………………………….

   21. Toilet facility used by household

     Water closet ( ) Pit latrine ( )   Pan/bucket   ( )   KVIP   ( )

     Others (specify)…………………………………………………………..

22. Describe the structure and quality of the house in which you live

     Type of blocks used …   Roofing of house…   Others (specify)

23. Would you say the poverty situation has improved in Tamale over the last

four years?

Yes   ( )

No   ( )

Don't know   ( )

23. a. If yes or no explain…………………………………………………….……..

…………………………………………………………………………………………

…………………………………………………………………………………………

Part C: Effect of poverty on nutrition and health of women and children

24. Do you/does your wife exclusively breast feed the children?

    Yes   ( )   No ( )

24. a. Explain……………………………………………………………………

25. Indicate the frequency with which the following health facilities are patronized/accessed.

Facility   Rate of frequency of patronage

	Very Frequent	Frequent	Infrequent	Very infrequent
Antenatal services				
Child welfare clinic				
Nutrition centre				
Hospital/clinic delivery points				
Mass immunization centre				
Reporting to O.P.D with illnesses				

26. Is poverty an important determinant of your family's health seeking pattern?

Yes　　( )　　　No　　( )

26. a. Explain……………………………………………………………………

27. How adequate are your household resources to meet sustainable livelihood?

28. Check the service points community members often use to access maternal and child health.

Public hospitals/clinic　( )　　　Dispensary/pharmacy　　( )　　Chemical store ( )

Maternity home　( )　　Home base-care (TBA)　( )　Does not consult ( )

Others (specify)　( )

29. Specify the most frequently consulted personnel when you/your children/family members fall sick? Tick more than one if applicable

　　　　Medical doctor ( )　　　　　　Nurse/midwife ( )　　Medical assistant ( )

　　　　　Pharmacist (　)　　　Do not consult/self medication　(　)　　　Others (specify) ( )

30. Why do some people fail to patronize health services in hospitals /clinics…………

Part D: Quantity and quality of MCH services in Tamale Metropolis

31. How far is your residence from the nearest health facility? ....

32. Rate the quality of the following M.C.H services as you perceive them to be.

Use. 1-5. 1 being lowest and 5 being the highest positive rating.

M.C.H FACILITIES　　　　　　　　　　　　　　　　RATINGS

I.　　Quality of facilities available　　　　　　　　　1　　2　　3　　4　　5

II.   Proficiency of trained health personnel   1   2   3   4   5

III.   Attitude of health workers   1   2   3   4   5

IV.   Level client/ family co-operation   1   2   3   4   5

33. List the most common maternal illnesses in the Metropolis

34. Rate the quantity of the following MCH facilities. Use 1-5 1 being the lowest and 5 being the highest rating.

MCH FACILITIES   RATING

I.   No. of MCH centers   1   2   3   4   5

II.   No. of trained health professionals   1   2   3   4   5

III.   No. of equipment available   1   2   3   4   5

IV.   Adequacy of drugs   1   2   3   4   5

V.   Adequacy of resuscitation materials   1   2   3   4   5

35. Give comments on the above.

36. What comments do have about?

  a. Maternal deaths……………………………………………………………

  b. Child/infant deaths………………………………………………………

c. Childhood illnesses………………………………………………………

  d. Pregnancy/ delivery related deaths

37. Would you say that the NHIS has helped to improve MCH status in the Metropolis?

     Yes   ( )   No   ( )   Don't know ( )

37.a. Explain……………………………………………………………

38. How effective is the free maternal health service scheme?

39. Do you think enough education has reached community members about the free maternal health scheme?

    Yes   ( )   No   ( )   Don't know ( )

39.a. Explain…………………………………………………………………

40. How has the following "delays" impacted on quality of MCH services?

- Delay in deciding to seek health services………………………………

- Delay in reaching health delivery point…………………………………

- Delay in rendering/receiving services…………………………………

41. Generally, how would you relate the quality of MCH services to poverty levels in the Metropolis………………………………………………………

Part E: Challenges facing MCH delivery

42. Are there cultural barriers against MCH services?

    Yes   ( )   No   ( )

42.a. If yes, name them……………………………………………………

43. How does spousal decision making process impact on MCH seeking?

44. Is there any sex burrier in seeking MCH services?

    Yes   ( )   No   ( )   Don't know ( )

44.a. Explain……………………………………………………………….

45. How does individual's income level influence his/her health seeking behaviours?

46. What are the key MCH challenges with regards to?

- Availability of the structures…………………………………………

- Services at the MCH centre……………………………………………
- MCH policy framework……………………………………………….
- Community-health facility relationship…………………………………
- Availability of equipment /materials

47. What are the most prevalent illnesses affecting children in your community?

48. Does the frequency of childbirth impact negatively on the health of women?

Yes ( )   No   ( )

48.a. Explain……………………………………………………………………

49. Large numbers of children born to a woman pose health dangers to the children

Strongly agree   ( )   Agree   ( )   Undecided   ( )

Disagree   ( )   Strongly disagree   ( )

50. Please feel free to offer other suggestions for improving maternal and child health   services,   delivery   and   status   in   the   Metropolis ………………………………………..

APPENDIX C

SELECTED HEALTH FACILITIES

Health Facility	Total number of Doctors / Medical Assistants	Number selected	Total number of Nurses / Midwives	Number selected
Tamale Teaching Hospital	32	2	414	12
West Hospital		2		8
Central Hospital(Old)		1		8
Bulpela Health Centre		1		5
Industrial Area Clinic		-		2
Nyohini Health Centre		-		2
Bagabaga Clinic		-		2
Garizegu Clinic		-		2
Choggu Health Centre		-		2
Kalpohin Health		1		2
Tamale Central RCH Clinic		-		3
Vitting RCH		-		3

Clinic				
Deaha Maternity Home		-		2
Fulera Maternity		-		2
Haj. Adam Clinic		-		2
Rabito Clinic		1		-
Shekhinah Clinic-Gurugu		1		-
Shekhinah Clinic-Wamale		-		1
SDA Clinic		-		2
As- Salam Maternity Home		-		2
Tania Specialist Hospital		1		1
Suglo Special Clinic		1		2
God Cares Community Hosp.		1		1
Kabsad Clinic		10		2
Total		12		68