

UNIVERSITY OF GHANA

**CASH TRANSFERS AND MULTIDIMENSIONAL CHILD POVERTY IN
GHANA**

BY

OSEI KWABENA BREFO

(10372888)

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DECLARATION

I hereby declare that, except for the references of other people's works, which I have duly acknowledged, this thesis is as the result of my own research work carried out in the department of Economics under the supervision of Dr. Festus Ebo Turkson and Dr. Frank Agyire-Tettey

Signed..... Date.....

Osei Kwabena Brefo

(STUDENT)

Signed..... Date.....

DR. Festus Ebo Turkson

SUPERVISOR

Signed..... Date.....

DR. Frank Agyire-Tettey

SUPERVISOR



ABSTRACT

LEAP is a flagship program of Ghana government that seeks to leap poor households out from poverty. Since the inception of this program, limited studies have explored the effect of the program on child poverty in Ghana. This study sought to quantify the impact of LEAP program on multidimensional child poverty using Global MPI. Both descriptive and inferential statistics were used to achieve the objectives of the study. The study used secondary data obtained from Institute of Statistical Social and Economic Research (ISSER). The children were grouped into two, namely pre-school (0-4 yrs) and school-aged (5-17yrs) children. Five dimensions (nutrition, health, information, housing, sanitation) and 15 indicators were used to compute MPI for pre-school children. MPI of school aged children were also computed using five dimensions (education, health, information, housing, sanitation) and 15 indicators. The study found that the proportion of pre-school children deprived in wasting, underweight, stunting, water, toilet and cooking fuel rose in 2012 whiles that of hospital, health status, insurance, internet, mobile and computer decreased in 2012. In the case of school aged children, the study found that, with the exception of cooking fuel and toilet, the deprivation rate of all other indicators decreased in 2012. The study found that pre-school children from treatment group had their MPI significantly reduce more than children in control group. However, in the case of school-aged children, the study found that children in treatment group had their MPI significantly increased than children in control group. The study concluded that whiles LEAP program had significant positive impact on pre-school children, it had no impact on school-aged children. The study recommend that LEAP program should be supplemented with food nutrients since the proportion of children deprived in nutrition increased in 2012.

Keywords: *Multidimensional poverty; Impact evaluation; Deprivation; Treatment; control*

DEDICATION

This work is dedicated to Mr. Kwabena Osei in the United State of America (USA) for sponsoring my postgraduate studies. Without him, this dream wouldn't have come true. I dedicate this to Prophet Daniel Amoateng of Power of Worship International Church, Spintex road for his prayer and to my late brother, Kwadwo Dwomo Brefo. Continue to rest peacefully in the bosom of your maker till we all meet again. I dedicate it to my beloved daughter Afia Bour Brefo.



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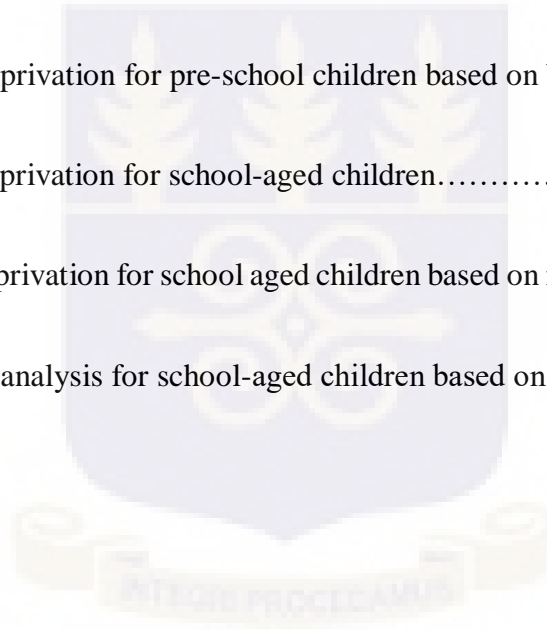
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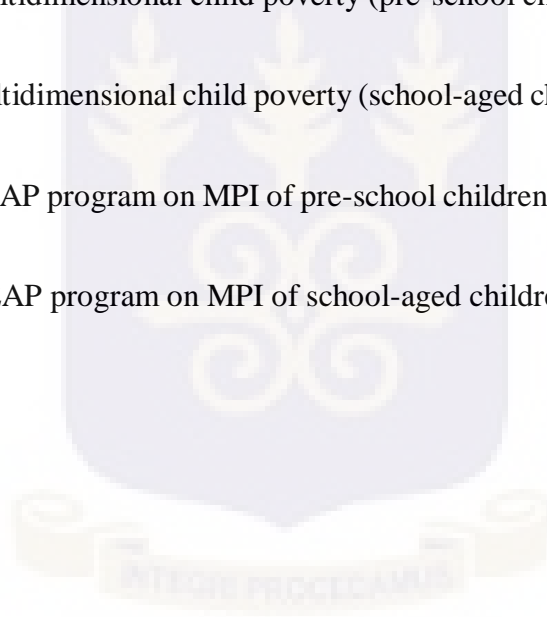
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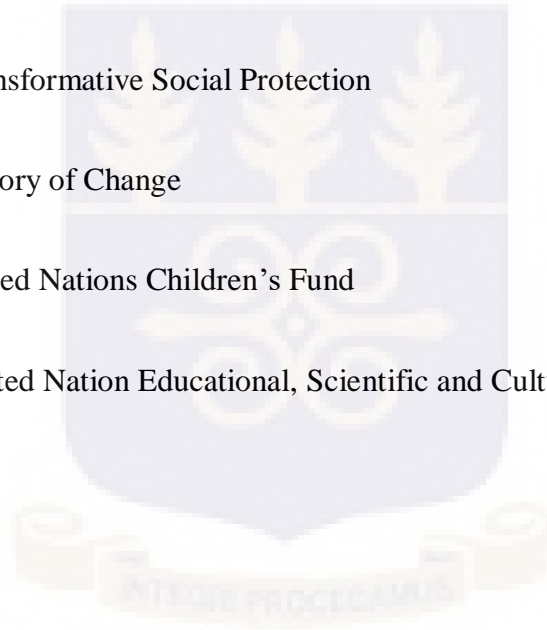
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LIST OF ABBREVIATIONS

CSO	Civil Society Organizations
DD	Difference-in-Differences
DSW	Department of Social Welfare
DFID	Department for International Development
GPS	Ghana's Social Protection Strategy
GPRS	Growth and Poverty Reduction Strategy
GSFP	Ghana School Feeding Program
GLSS	Ghana Living Standard Survey
GOG	Government of Ghana
ILO	International Labor Organization
ISSER	Institute of Statistical, social and Economic Research
LEAP	Livelihood Empowerment Against Poverty
MDG	Millennium Development Goal
MMYE	Ministry of Manpower, Youth and Employment
MPI	Multidimensional Poverty Index
NHIS	National Health Insurance Scheme

NPP	New Patriotic Party
NSPS	National Social Protection Strategy
OVC	Orphan and Vulnerable Children
PWD	Person with Disability
SSA	Sub-Saharan Africa
SSNIT	Social Security and National Insurance Trust Fund
TSP	Transformative Social Protection
ToC	Theory of Change
UNICEF	United Nations Children's Fund
UNESCO	United Nation Educational, Scientific and Cultural Organization



CHAPTER ONE

INTRODUCTION

1.1 Background of study

Of all the problems in this world, may be one of the most important that needs to be treated is poverty (Geremek, 1994). Poverty has been defined in several ways (e.g Deaton, 2002; Geremek, 1994). According to Deaton (2002), poverty refers to situation whereby individuals or households are unable to afford a certain standard of living as defined by the society. Geremek (1994) described poverty as a major problem in our dispensation, for which new mechanisms are needed to find a solution to it. Braithwaite and Mont (2009) reported that minimizing poverty should be one of the fundamental objectives of economic development in every country. According to Beegle et.al (2016), statistics from World Bank (2016) shows that more than 10% of world population depend on less US\$ 1.90 per person in day compared to 12.4% in 2012. Beegle et.al (2016) reported that the fall in extreme poverty can be linked to the rapid growth in China, Indonesia and South Asia. Although, they found that extreme poverty had decreased in these countries, they also found that poverty incidence increased in some part of Sub Saharan Africa (SSA) and southern part of America in the same period. They reported that statistics from World Bank (2016) revealed that frequency of poor people in Sub Saharan Africa (SSA) was reduced by 4 million. Also, more than 385 million people were depending on less than \$1.90 a day in 2013. Majority of the poor people dwell in the remote areas, mostly less educated and employed in agriculture sector. Newhouse et.al (2016) reported that children constitute one third of the population in the world and over fifty percent of global poor belong to this category. Children are regarded as the most

vulnerable groups in every nation since they rely on others for survival and do not control any economic resources of their own (Dornan, 2017). Several studies have shown that the poverty incidence is comparatively higher among children than that of other age group in many countries (Deaton and Paxson, 1997; Lanjouw et al, 1998). Children are the ones that are mostly affected by poverty across nations. World Bank and United Nations Children Fund (UNICEF) reported that extreme poverty rate of children is twice that of the elderly (Newhouse et.al, 2016). They also revealed that a little less than 385 million children are living in extreme poverty globally. According to Vilaplana (2013), statistics from Focus on Children (2013) suggests that 19.5% of children population in developing countries were living in households that survived on less than \$1.90 a day, compared to just 9.2% of adults in 2013. They also claimed that 50% of children in SSA are growing up in extreme poor households.

Reports on global poverty before 2011 showed that more than eight million children (22,000 children per day) die each year as a result of poverty and vulnerability. These deaths are mostly attributed to hunger, malnutrition and lack of potable drinking water which are all preventable (UNICEF, 2011). They also reported that 21.8 million children aged below one year globally had not gotten the required dosage of three vaccines against diphtheria, tetanus and pertussis as at 2013. United Nation Educational, Scientific and Cultural Organization (UNESCO, 2013) reported that 59 million primary school children were not attending school as at 2013 and 52 percent were girls. Additionally, they reported that about 26 percent of primary school children in West and Central Africa were not enrolled in school as at 2013 and this was largely due to poverty and vulnerability.

Brooks-Gun and Duncan (1997) stated that growing up in a poor household can affect the future of the child negatively, with associated effect for all their generation and the society as a whole. Children who stay in poor households are mostly exposed to poor sanitation, large family size, and

limited income (Walker, 2008). During a public lecture on poverty and inequality organized by UNICEF in 2016 in Ghana, McKay claimed that children in Ghana are 40% more likely to live in poverty relative adults. This shows that poverty inequality between adults and children in Ghana has increased by 25 percent. According to Pritchard and Williams (2013), reports from UNICEF (2013) showed that 24.8% of children in Ghana were living in poverty. Child poverty continues to be on the rise in remote areas (41.8%) than in the urban areas (13.1%). Cooke et.al (2016) reported that statistics from Ghana Living Standards Survey (GLSS 2012-2013) shows that 1.2 million children were growing up in households that depend on inadequate food for sustenance.

These facts presented above reflect the need for attention and action to be taken to address this menace. In our quest to achieve Millennium Development Goal (MDG) one, several governments have put up measures to address child poverty (Bradshaw, 2016; Tarki, 2010). Several countries have introduced social protection programs as the most efficient way of finding lasting solution to child poverty (Lanker & Mechelen, 2015; Bradshaw, 2016). The idea of social protection experienced tremendous modification in the 1990s (Devereux & Sabates-Wheeler, 2004; Shaffer, 2003; Barrientos and Lloyd-Sherlock, 2002). Some of the social protection programs are early childhood development and nutrition, universal health coverage, universal access to quality education; cash transfer programs and rural infrastructure. Cash transfer is the most widely adopted social intervention programs in several countries (Behrman et al., 2007). The idea of cash transfer schemes began in Latin American countries solely in response to the macroeconomic crisis of the 1990s when the demand for facilities like education and health from poor households was seen to have reduced (Devereux & Sabates-Wheeler, 2004). The government of Ghana has also implemented social protection policies such as the school feeding for basic schools which aims at increasing school attendance, free National Health Insurance Scheme (NHIS) which seeks to help

more children to access health services and free Maternal care which aims at reducing child mortality at birth etc. All these social interventions seek to address different aspects of the social and economic development of its vulnerable citizens. The LEAP program is one of the integral aspects of the social protection strategy of the government of Ghana to ensure that minimum standard of living of poorest in the country is met.

According to the National Social Protection Strategy (NSPS), LEAP is part of the Government of Ghana's (GOG's) vision of making an all-inclusive and socially empowered society via provision of sustainable mechanisms for the protection of persons living in abject poverty and related vulnerability and exclusion (Ministry of Manpower, Youth and Employment (MMYE, 2007). Most of the studies from other countries such as Brazil, Turkey, South Africa and Mexico have shown that cash transfer has been effective in reducing child poverty and have also led to the fulfillment of the MDGs in these countries (e.g Ravallion & Wodon, 2000; Anker & Melkas, 1996; Morley & Coady, 2003). In Ghana, the LEAP program was introduced in March 2008 by the NPP government; LEAP was designed to give fundamental and secure incomes to the less privileged households in the country.

The LEAP program was introduced as the most important social protection program of Ghana's Social Protection Strategy (GSPS). This ambition was supported by international agencies such as UNICEF, Department for International Development (DFID), the World Bank, and Civil Society Organizations (CSO) like Help Age. The government also played a major role in the commencement of the LEAP program. A team of technical experts from Ghana were sent to understudy countries that had already implemented cash transfer program to guide in the administration of the program.

Before the commencement of the program, the Department of Social Welfare (DSW) with the help of UNICEF was executing a NHIS project through which health insurance premiums were paid for Orphans and Vulnerable children (OVC) in 21 districts. These 21 districts were used as the pilot study of the LEAP program. The first payment of cash transfer was dispatched to the 1,654 beneficiaries in March 2008. The program extended its membership to add the extremely poor households with people aged 65 years and above without productive capacity. Households that are extremely poor and also have pregnant women or mothers with children and persons with disabilities (PWD) were also enrolled on the program (DSW, 2009)

These target groups as stated above must meet certain conditions to make them eligible for enrollment onto the program. Some of the conditions are; all school-going age children in beneficiary households must be enrolled in school; all children in beneficiary households should be registered with the NHIS and no child in the household should be subject to child labor (MMYE, 2007). The amount of money that the program gives each household every month is subject to the number of individuals enrolled on the program in that particular household. Currently the amounts received by households are shown below:

A household with one eligible member takes GHC64.00 per payment cycle; household with two eligible members take GHC 76.00 per payment cycle, household with three eligible members- GHC88.00 per payment cycle and household with four or more eligible members - GHC106.00 per payment cycle. The LEAP beneficiary members are made up of 44% male and 54% female (DSW, 2013). This study purposely focused on children for several reasons. The increased poverty inequality in children as compared to that of adult in Ghana is a motivation for using children as my study focus. The poverty inequality between children and adults has increased by 25 percent in favor of adults (GLSS 2012-2013). Statistics from UNICEF also shows that child mortality for

under age 5, which is 82 per 1000 lives, continues to be higher than the MDG target (40 deaths per 1000 lives). Malnutrition also contributes almost one-third of all childhood death. About 4000 Ghanaian children die each year from diarrhea.

1.2 Statement of the problem

Studies on child poverty is crucial because children are the most vulnerable in the society (Suarez-Becerra & Evans, 2016; Lanker & Mechelen, 2015; Cooke et.al, 2016) and also the future of every country can be determined by the wellbeing of its children (Leitch, 2006). Moreover, their poverty and vulnerability have addictive and long-term effects for their future and that of their generation. UNICEF (2000b) reported that poverty alleviation should target children. Cash transfer programs have received great attention as a major breakthrough to alleviate child poverty and vulnerability (Roelen & Sabates-Wheeler, 2011)

Several studies have examined the impact of cash transfer programs on child welfare indicators such as nutrition (Tiwari et.al, 2016; Hidrobo et.al, 2015), education (Baird et.al, 2014; Fiszbein & Schandy, 2009; Saavedra & Garcia, 2012), child labor (Hoop & Rosati, 2014; Edmonds & Schady, 2008; Veronica, Ferrando & Vigorito, 2011) and birth registration (Diwan & Costa, 2013; Rajkonwar & Kusre, 2013). In the case of Ghana, most of the studies that have explored the impact of the cash transfer program focused on unidimensional approach of poverty measurement such as income, consumption expenditure, education, health, and employment etc. (see; Taylor et.al, 2013; Owusu-Addo, 2014). In spite of the number of studies that have examined the impact of cash transfer programs on child poverty, there are still some areas that are under explored, especially in Ghana. Although, unidimensional approach to poverty measurement is relevant in

giving a clue of broad poverty patterns over time, Sen (1985) believes that these measures are inadequate because they are often seen overly simple; hence fail to span the concept of wellbeing.

After extensive review of available literature on the cash transfers and child poverty nexus, limited studies were found to have examined the impact of cash transfers on multidimensional child poverty in Ghana. Even though, there are extensive studies that have looked at the impact of cash transfers on individual dimensions (nutrition, education, housing, sanitation, information, health) used in computing multidimensional poverty index, there has been no work that jointly examines the impact of LEAP on these dimensions in Ghana. However, some researchers have argued that the joint study of these dimension is important because there are many synergies that exist between all the various form of child deprivation, which reinforce each other and could therefore lead to a much more better picture of overall child wellbeing than one imagines (e.g Handa et.al, 2013; Owusu-Addo, 2014; Agbaam & Dinbabo, 2014). Some researchers have also argued in favor of the use of multidimensional approach to poverty measurement for various reasons (UNDP, 2013; Narayan et. al, 2000). For instance, Santos and Villatoro (2018) argued that use of multidimensional poverty index overcomes the challenges in aggregating different deprivations (Santos & Villatoro, 2018). Others have also argued that the use of unidimensional approach to poverty measurement provide an indication of the financial means of the household to satisfy its needs, deprivation reflects the final end (Hulme and McKay, 2007; Quili et.al, 2017). Based on these arguments, this current study sought to examine the effect of cash transfer on multidimensional child poverty in Ghana.

1.3 Research objectives

The main objective of this work is to contribute to the literature on multidimensional understanding of child wellbeing in Ghana and also examine the contribution of Ghana's cash transfer program in addressing child poverty in the poor households in Ghana. The specific objectives are:

1. To examine the trends in deprivation of the indicators used in computing multidimensional child poverty in Ghana
2. To explore the impact of LEAP program on multidimensional child poverty in Ghana

1.4 Research questions

1. What are the trends in deprivation of indicators used in computing multidimensional child poverty in Ghana?
2. What is the impact of LEAP program on multidimensional child poverty in Ghana?

1.5 Significance of the study

This study fills a gap in research on cash transfers and multidimensional child poverty nexus in Ghana. Previous studies on the LEAP program have focused on its impact on unidimensional child poverty indicators such as education, mortality, child labor etc. By investigating the impact of LEAP program on multidimensional child poverty, the study makes three contributions to the field impact evaluation studies. First, it contributes to the extant empirical literature on impact evaluation. Two, while most of these studies in Ghana explored the impact of cash transfer on unidimensional indicators to poverty measurement, this study looks at the impact on

multidimensional child poverty. This use of multidimensional poverty measure is more direct description of poverty as experienced by children themselves (Alkire & Foster, 2011). Three, the study explores the issues from an under-studied and a new geographical context, Ghana, which overall, enhances our understanding in the field. Additionally, using the multidimensional approach will aid policy makers to implement policies and programs that targets the disadvantaged children.

1.6 Organization of the study

This study is presented in six chapters. Chapter one presents information on background of the study, problem statement, research objectives, questions, significance and organization of the study. Chapter two presents information on overview of the LEAP program and child poverty. Information included in chapter two are history of child poverty, factors affecting child poverty in Ghana, background of LEAP program, its objectives and eligibility criteria. Chapter three reviews literature on previous studies that have explored the influence of cash transfers on child poverty. Literature review is discussed in four sub sections. The first section presents information on definition of key concepts. Second and third section presents information on theoretical and empirical review and the last section presents information on conceptual framework of the study. Chapter four presents information on the research methodology used in the study and chapter five also presents result and finding whiles chapter six presents summary, conclusion and future recommendations.

CHAPTER TWO

OVERVIEW OF POVERTY IN GHANA

2.1 Introduction

This chapter presents an overview of child poverty in Ghana as well as the history of social protection programs. Other information covered in this section are history of LEAP program, eligibility criteria as well as the objectives of LEAP program.

2.2 History of child poverty

This chapter gives a short overview of child poverty between 2005 and 2013 in Ghana. It also looks at factors that affect child poverty in Ghana. Ghana has made great progress in reducing poverty over the last 20 years and is on track to achieving SDGSM. Within the last two decades, Ghana has experienced a positive per capita economic growth. While most Sub-Saharan African countries recorded economic decline in the late 1980s and early 1990s, Ghana stood out and experienced a positive growth. Ghana's GDP per capita grew at a rate of 1.7% between 1985 and 1994. Between 1995 and 2004, GDP per capita rose by 2% and increased further by 5.3% in 2013 (Mckay et. al, 2015). The question that many people usually ask is: to what extent does the economic growth translate into improvement in the living standards of the ordinary Ghanaian? In spite of the continuous improvement in per capita GDP, poverty continues to remain high in Ghana especially among children (McKay et.al, 2016).

Most of the studies that examine the trend in poverty have looked at the entire population instead of focusing on children. However, focusing on the entire population usually masks the actual

poverty status of children (Mba et al, 2008). For instance, while the overall poverty rate in 2005/06 has been reduced from 31.9% to 24.2% in 2012/13, 18.5 percent lives in extreme poverty. Child poverty rate also reduced from 36.3 percent in 2005/06 to 28.4% in 2012/13. This in absolute terms implies that 3.65 million children live in poverty as at 2012/13 compared to 4.07 million children in 2005/06.

Child poverty is broadly defined to compose their nutrition, health and morbidity conditions, schooling and social inclusiveness including the enjoyment of basic rights that pertains to children (Quilli et.al, 2017). A lot of Ghanaian children lack access to some of the basic needs specify above and statistics from Ghana Demographic and Health Survey (GDHS) showed that the average Ghanaian children are deprived in nutrition and health. UNICEF (2015) also reported that there has been an improvement in under-five mortality rate (U5MR) - it declined from 111 per 1000 live births in 2000-2003 to 80 per 1000 live births in 2004-2008. Again, they reported that Ghana recorded a high maternal death of 451 per 100,000 live births in 2008 and attributed the underlying cause of this high mortality to malnutrition. In 2008, about 28 percent of children below five years old were stunted with 9.8 percent being severely stunted (Mba et.al, 2008).

2.3 Social protection programs in Ghana

Social Protection is an important strategy adopted to protect people from chronic poverty or shocks (Roelen & Sabates-Wheeler, 2011). It is defined as all measures whether public or private that give income or consumption transfers to the poor, shield the them against livelihood risks, promote their status in the society and rights of the disadvantaged; within the main aim of reducing the economic and social vulnerability of poor (Devereux & Wheeler, 2004). In Ghana, previous

governments have implemented several social protections that seek to support the vulnerable in one way or the other.

The Nkrumah government implemented a nationwide social security Scheme in the 1965, which provided money for lump sum payments for old age, invalidity and survival benefits. The scheme is now called Social Security and National Insurance Trust (SSNIT). Between 2002 and 2005, the NPP government also introduced Ghana Growth and Poverty Reduction Strategy (GPRS) II. This strategy was established in order to achieve MDGs of UN. The NHIS was also implemented under ACT 650 in 2003. The scheme was introduced in order to provide health care services to persons resident in the country. It was launched to replace the cash and carry system which forced the vulnerable to die often because they couldn't afford the services of a doctor. In 2005, the Ghana School Feeding Program (GSFP) was also launched in order to meet the MDG concerning the reduction in hunger. The main objective of this policy was to increase school enrollment, attendance and retention, reduce hunger and malnutrition and to boost domestic food production. The LEAP social grant was also introduced in late 2008 under the supervision of Department of Social Welfare (DSW).

2.4 History of the LEAP program

The Ministry of Employment and Social Welfare (MESW) was authorized to develop the National Social Protection Strategy (NSPS) under Ghana's Growth and Poverty Reduction Strategy II (GPRS II), which was accomplished in 2007. The main aim was to cut down poverty rates in the country which was in line with the MDG objective of reducing extreme poverty in the world by half in 2015. The NSPS tried to produce an all-inclusive society through the provision of cash for

the protection of the vulnerable in the country. Based on the authority that was given to the National Development Planning Commission to include the poor and vulnerable in national planning and development, the LEAP program was introduced as the flagship social protection program. The program became successful through the support from development partners such as the World Bank, UNICEF, DFID and Help Age Ghana.

The program began in 2008 under the NPP government and the first disbursement of cash was done in March, same year to 1,654 households in 21 pilot districts. These 21 districts were already enrolled on a similar program that was sponsored by UNICEF and they were adopted as the case study for the program. In 2009, the program was expanded to include additional 33 districts making it 54 districts in all. This expansion was made possible as a result of changes in the eligibility criteria to include extremely poor households with elderly person aged 65 years above without productive capacity and persons with severe disabilities. In 2010, some districts in eight regions of Ghana were affected by drought and floods. In order to lessen the economic hardship of the victims, they were also enrolled on the program through the Emergency LEAP program. In 2016, the LEAP program embarked on an expansion drive to achieve its target of 250,000 households at the end of the year. Due to this, additional 50,000 households were enrolled onto the program in 2016.

2.5 Eligibility criteria for the LEAP program

The program aims at targeting the extremely poor families across the country. However, not all extremely poor people are eligible for the program. There are specific things that management of the program look out for before a particular household will be selected. For a household to be

eligible, there should be individuals aged 65 years and above without any form of support; severely disabled without productive capacity; orphaned and vulnerable children; and extremely poor or vulnerable households with pregnant women and mothers with infant.

2.6 Objectives of LEAP program

The program is designed to alleviate poverty by increasing consumption and enhancing access to services and opportunities among the extremely poor households. In order to achieve this objective, the program has these specific objectives: to enhance basic household consumption and nutrition among children less than 5 years, adult aged 65 years and above without any productive capacity and persons with disabilities; to enhance access to health care services nutrition among children less than 5 years, adult aged 65 years and above without any productive capacity and person with disabilities; to improve school enrollment, attendance and retention of children aged 5 to 15 years; to ease access to supplementary services such as welfare and advancement of productive capacity among beneficiaries.

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

This section reviews literature on previous studies that have examined the impact of cash transfers on child poverty. The chapter is presented in four sections. The first section presents information on definition of key concepts. Second section presents information on the theoretical review and the third section also presents empirical review on the impact of cash transfers on child poverty. The last section also presents the conceptual framework regarding the study.

3.2 Definition of Key concept

Numerous studies have shown that the manner in which poverty is measured can greatly influence how it will be comprehended and analyzed (de Neubourg et.al, 2012; Roelen et al, 2014; Quili et.al, 2017). There has been a long-standing debate as to whether the income or multidimensional approach to poverty measurement should be used in measurement poverty. There are two schools of thought on poverty measurement. The proponents of first school of thought are of the view that poverty should be measured using the multidimensional based approach. (e.g Bourguignon & Chakravarty 2003; Atkinson et.al, 2010; Alkire & Foster, 2011; Alkaire et.al, 2014; Morell, 2017; Hulme & Mckay, 2013) whiles the other school believes in the use of income-based approach (e.g Noble & Cluver, 2007; Smeeding, 2016). The income-based approach is also known to as the welfarist approach. The former perceived poverty as the situation whereby individual or household is deprived of basic needs or capabilities (Sen, 1992). Bourguignon and Chakravarty

(2003) propounded a class of multidimensional poverty measures that incorporated the Foster-Greer-Thorbecke (FGT) class of indices and discussed the inter-connection among the dimensions. The latter group also perceived poverty as the situation whereby household resources (money) are insufficient to purchase goods required for wellbeing. The debate between these two schools of thought is not about the definition of poverty per se but about ways of measuring poverty. A vast range of research has shown that monetary and multidimensional measures are subject to major mismatch in both theoretical and empirical terms (e.g de Neubourg et al. 2010; Notten & Roelen, 2010). For instance, Roelen et al. (2010) found that using multidimensional or unidimensional approach to poverty measurement gives different pictures of poverty situation by identifying different categories of children being poor in Vietnam.

Recently, most studies on poverty adopt multidimensional approach to poverty than the income approach because methodologies used in computing MPI overcomes the challenges in aggregating different deprivations (e.g Santos & Villatoro, 2018; Alkire & Foster, 2011a). The commonly used methodology is the deprivation indexes. Gordon et al (2003) defined deprivation as the situation whereby households lack access to several basic needs like nutrition, drinking water, housing etc. Both approaches to poverty measurement have got their own strengths and drawbacks. For instance, the income-based poverty is simple and easy to get data because household income and consumption expenditure are mostly found in national surveys. However, the income-based poverty does not provide enough policy guidance regarding deprivations in other dimensions. The multidimensional approach to poverty measurement is more specific and it is easy to provide information for policy making (Alkire et.al, 2014). It also takes into account the intensity of the poverty apart from the incidence of poverty. There is empirical evidence to support the claim that, the results or findings that one will obtain will be greatly influenced by the approach the person

used to measure poverty (e.g Roelen et al, 2014; de Neubourg et.al, 2009; Quili et.al, 2017; Alkire et.al, 2014). For instance, Alkire et.al (2014) found that out of 1.6 billion classified as multidimensionally poor, 85% of them lived in remote areas, and it was significantly higher than those (70-75%) classified as income poor.

Seff and Jolliffe (2014) explored the dynamics on Multidimensional Poverty in Ethiopia. They found that consumption-based poverty shifted more greatly, with almost 31% moving in or out of poverty between 2012 and 2014 while only 26% of households transitioned between multidimensionally poor and non-poor states. Similarly, Roelen and Gassmann (2009) found that 22.6 % of children between the ages of 0 and 16 years were monetary poor while 30.7% were multidimensionally poor in Vietnam. The study also showed that rural dwellers tend to be poorer in monetary and multidimensional poverty terms. Whilst 5.42% and 11.25% of urban dwellers were classified as poor in monetary and multidimensional terms respectively, 27.58% and 36.33% of rural dwellers were also poor in monetary and multidimensional terms.

3.3 Theory of Change (ToC) framework

For some time now, social protection has emerged as a policy tool for finding solutions to poverty and vulnerability in developing countries (Barrientos, 2010; Roelen & Sabates-Wheeler, 2011). Although, there are a lot of studies that have explored the impact of cash transfers or social protections on poverty reduction and development, there is limited understanding on the mechanisms or pathways through which cash transfers influence poverty. There are several theories which explain how cash transfer explains the variation in poverty. This study adopts the “Theory of Change (ToC)” framework summarized by Bastagli (2009). According to Bastagli

(2009), the conditionality imposed on cash transfers require that beneficiaries follow specific behaviors. The idea of the conditionality is to improve human capital outcomes and promote resilience through impacts on behavior. By adding conditions such as enrollment in school and health insurance, cash transfers ensure that amount received are spent on things that will end up improving the lives of beneficiaries.

3.4 Empirical review

3.4.1 Trends in child deprivation

Several studies have explored the trends in child deprivation of different countries (e.g Gordon, 2003; Ferrone & Chzhen, 2015; Ferrone et.al, 2016; Plavgo et.al, 2016; Kanamori et.al, 2015). Ferrone and Chzhen (2015) explored the trends in child deprivation in Bosnia and Herzegovina. The study made use of Multiple Indicator Cluster Survey (2012) and extended household budget survey data. The main objective of the study was to identify the proportion of children that were deprived in child-specific indicators. The children were grouped into two, namely pre-school (0-4 years) and school-aged (5-17 years) children. With respect to pre-school children, the study found that 98.1% of them were deprived in at least one dimension and 33.2 percent were deprived in three or more dimensions. Exactly 71.8% of pre-school children were deprived in nutrition, 65.7% deprived in child development, 48.7% were exposed to violence and 53.4% were deprived in information. In the case of school-aged children, the study found that 60.3% were deprived in information, 25.5% were deprived in leisure and 17.5% were deprived in housing.

Ferrone and Chzhen (2016) explored the trends in deprivation rate of children in Armenian households. The main objective of the study was to find out the proportion of children that were

deprived in indicators such as nutrition, information, housing, education, leisure, housing etc. The children were categorized into three, namely 0-5 years, 6-14 years and 15-17 years. The study found that 30.2% of the children were deprived in nutrition, 51.8% were deprived in leisure, 21.1% deprived in clothing, 50.7% deprived in utilities and 43.1% deprived in information. In the case of children aged 0-5 years, the study found that 30.2% were deprived in information, 48.3% deprived in utilities and 50.9% were deprived in housing. For children aged 6-14 years, 36.7% were deprived in education, 52.5% were deprived in leisure, 20.5% were deprived in clothing, 41% were deprived in information and 52% were deprived in utilities. With respect to children aged 15-17 years, the study found that 12% were deprived in education, 50% were deprived in leisure, 29.7% were deprived in social, 22.9% were deprived in clothing, 29.4% were deprived in information and 48% were deprived in housing.

Similarly, Milliano and Plavgo (2014) explored the deprivation rate of children in Sub Saharan Africa using child specific indicators and Multiple Overlapping Deprivation Analysis. The indicators used were food, nutrition, water, sanitation, health care, shelter, housing and education. Children were categorized into two, namely pre-school (0-5 years) and school aged (5-17 years). The study revealed that 67% of pre-school aged children in SSA were deprived in sanitation, 56% were deprived in health, 52% were deprived in water, 44% were deprived in housing and 40% were deprived in nutrition. In the case of school aged children, the study found that 66% were deprived in sanitation, 51% were deprived in water, 44% were deprived in housing, 35% were deprived in education and 26% were deprived in information.

Additionally, Ferrone et.al (2016) explored the deprivation rate of children in four countries, namely Ghana, Cambodia, Mali and Mongolia. In Ghana, the study found that 11.5% of the children were deprived in nutrition, 25.4 % deprived in child mortality and 15.3.% deprived in

education. In the case of Cambodia, they found that 43.1 % were deprived in nutrition, 4.45 % deprived in child mortality and 27.8 % deprived in education. This analysis was done using an MPI threshold of 0.33. Kanamori and Thommas (2013) also did a study titled “Indicators of child deprivation in SSA; levels and trend from Demographic survey”. The study showed that household head gender plays a key role in stunting prevalence in SSA, even though their findings were inconsistent. In eight countries, stunting prevalence was at least 1% high for children living with a male household head in 8 countries. Eleven countries also experienced 1% increase in stunting prevalence for household with female head. For instance, in Nigeria, stunting prevalence was 6 percentage points higher for children living with a male household head than a female household head (37% versus 31%). Burkina Faso had 4% higher stunting prevalence for children living with a male household head (30% versus 26%). However, the reverse situation happened in countries like Democratic of Republic of Congo and Senegal, where stunting prevalence was 7 percent and 4 percent higher for children living in female headed household.

3.4.2 Effects of cash transfer on multidimensional child poverty

Poverty remains an impediment to the economic development of many countries. Several initiatives have been taken to address this problem, yet millions are still faced with poverty. Attention has been shifted to cash transfer programs as an effective mean of alleviating poverty, deprivation and vulnerability among children in the world. Cash transfers can be conditional or unconditional or a combination of the two. Several studies have explored the impact of cash transfer on multidimensional child poverty (eg. Ferrone et.al, 2017; Song & Katsushi, 2019; Pasha, 2017; Tonmoy, 2014; Loschmann et.al, 2015).

Quili et.al (2017) explored the impact of unconditional cash transfers on multidimensional child poverty in Malawi. The study employed the difference in difference estimation technique to investigate the impact of cash transfer program on multidimensional child poverty. The study made used of eight dimensions (health, nutrition, water, sanitation, housing, protection, education and information) and 20 indicators. The study collected information on both treatment and control groups. The study found that Malawi social cash transfer program has no or weak impact on multidimensional child poverty. Song and Katsushi (2019) examined the impact of hunger safety net program on multidimensional poverty in Kenya. The main objective of the study was to examine how the cash transfer program affect multidimensional poverty. The study employed difference in difference estimation technique to assess the impact of the program on multidimensional poverty. The study gathered information on treatment and control group. The study focused on baseline and end line. The study computed multidimensional poverty index (MPI) using three indicators (monthly household consumption expenditure, food security, asset accumulation) and 10 indicators. The study controlled for variables such as household size, gender of household head, age of household head, occupation of household head and illiteracy of household head. The study found that hunger safety net program significantly reduces multidimensional poverty in treatment households by 4.6% more control households.

Similarly, Jacobs (2015) also explored the impact of cash transfer program on multidimensional poverty in Western Liberia. The main objectives of the study were to investigate the extent to which social cash transfer has impacted multidimensional poverty as well as the extent to which the welfare of treatment group differs from control group. The study employed nested quasi-experimental case study to achieve the objectives of the study. Convenience sampling technique was used to select participants of the study. The study employed mixed research design to study

the relationship between cash transfer and multidimensional child poverty. A sample size of 291 respondents from 117 households were considered in the study. The study found that cash transfer significantly reduces multidimensional poverty in treatment households more than control households. Pasha (2015) assessed the impact of cash grant on multidimensional poverty and inequality. The study found that cash grant reduced the level of multidimensional poverty among the households irrespective of the size of cash grant. Using the Two Stage Least Square (2SLS), the study found that a unit change in the cash grant significantly reduces the multidimensional poverty by 0.04%.

Loschman et.al (2015) examined the impact of shelter assistance on multidimensional poverty in Afghanistan. The main objective of the study was to examine the extent to which cash transfer influence multidimensional poverty. The study employed Alkire and Foster (2011) approach to multidimensional poverty to investigate the impact of the program on MPI. The study made use of 3 indicators (Economic Welfare, Health and education, Basic services) and nine indicators (debt ratio, sources of income, assets, dietary diversity, food security, school attendance, electricity, potable drinking water, heating). The study used secondary data obtained from Maastricht Graduate school of Governance. The survey covered 4,548 households across 15 provinces. The study revealed that shelter assistance had significant negative impact on multidimensional poverty as treatment households had their MPI reduced by 3 percentage points more than control households.

Lastly, Tonmoy (2014) examined the impact of anti-poverty program on multidimensional poverty in Bangladesh. The study adopted Alkire and Foster (2011) model to compute multidimensional poverty index. The study employed difference in difference estimation technique to investigate the impact of Targeting Ultra Poor (TUP) program on MPI. The study used 21 variables as a

dimension for measuring poverty. The study found that TUP significantly reduces MPI by 18 percentage points more than control groups. After review of empirical literature, the study found that there are inconclusive findings regarding the impact of cash transfer on multidimensional poverty. While some of the study found that cash transfer programs significantly reduce multidimensional poverty, some also found insignificant impact. All the study that focused on the impact of cash transfer program on multidimensional poverty of all age groups found a significant impact. However, the study that focused on the impact of cash transfer on multidimensional child poverty found that it has no significant impact. This implies that there is need to conduct more studies that focuses on only children instead of all age group.

3.4.3 Effects of cash transfers on health, education and standard of living

In order for policy makers to know the necessary steps to address multidimensional poverty, it is relevant that we examine the contribution from the three dimensions used in computing the MPI separately. Several studies have examined the impact of cash transfer programs on each of the dimensions (education, health, standard of living) used in computing MPI (see Pasha, 2015; Quili et.al, 2017; Jacobs, 2015). Pasha (2015) explored the impact of cash grant on multidimensional poverty in South Africa. The study further explored the impact of cash grant on each of the dimensions (health, education, standard of living) used in computing MPI. The findings from the study revealed that the impact of the cash grant is negative and significant on health and Standard of living dimensions. However, the study found a positive relationship with that of education dimension. The study found that a unit change in cash grants lead to a decrease in weighted deprivation health and standard of living score by 0.06% and 0.14% respectively while that of weighted deprivation score for education increases by 0.02%.

Quili et.al (2017) explored the impact of cash transfers program on individual dimensions used in computing multidimensional child poverty in Malawi. The dimensions considered in computing MPI were health, nutrition, education, protection, information, water, sanitation and housing. The study found that cash transfer program had significant impact on health, nutrition, information and water. Furthermore, the study found that weighted deprivation score of health, nutrition and water of children in beneficiary households were significantly reduced by 10.7%, 11.7% and 10.3% respectively more than children in non-beneficiary households. However, the study found that weighted deprivation score in information of beneficiary households were 4.3% more than children in non-beneficiary households. The findings demonstrate that the impact of cash transfer program on multidimensional child poverty are driven by health, nutrition and water.

Similarly, Jacobs (2015) explored the impact of cash transfer program on multidimensional poverty in Western Liberia. The study further examined the impact of cash transfer on individual dimensions used in computing multidimensional poverty index. The study found that beneficiary households showed better health outcomes compared to that of non-beneficiary households. For instance, under five mortality was significantly lower in beneficiary household's relative non-beneficiary households. However, the study found that non-beneficiary households have access to improved drinking water and sanitation than beneficiary households. The above empirical review clearly demonstrates that there are inconclusive findings regarding the dimension that causes improvement on multidimensional poverty.

3.5 Conceptual framework

This section describes the conceptual framework of the study. The conceptual framework explains the relationship between cash transfers and multidimensional child poverty. The main objective of the study is to investigate the impact of cash transfer on multidimensional child poverty. Figure 3.5 depicts the conceptual framework of the study. The conceptual framework demonstrates that LEAP program has influence on MPI. Aside LEAP, the researcher posits that other variables such as sex of household head, age and sex of the child, household size, household size square, mother's work, father's work, household head age and age square of household. Table 3.5 depicts the conceptual framework of the study.

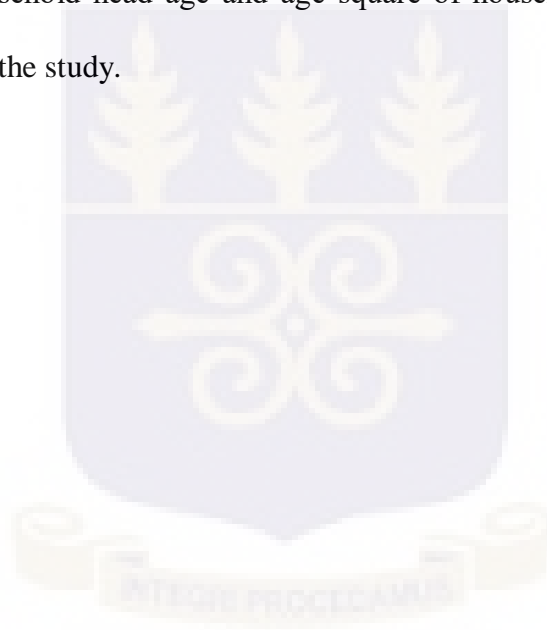
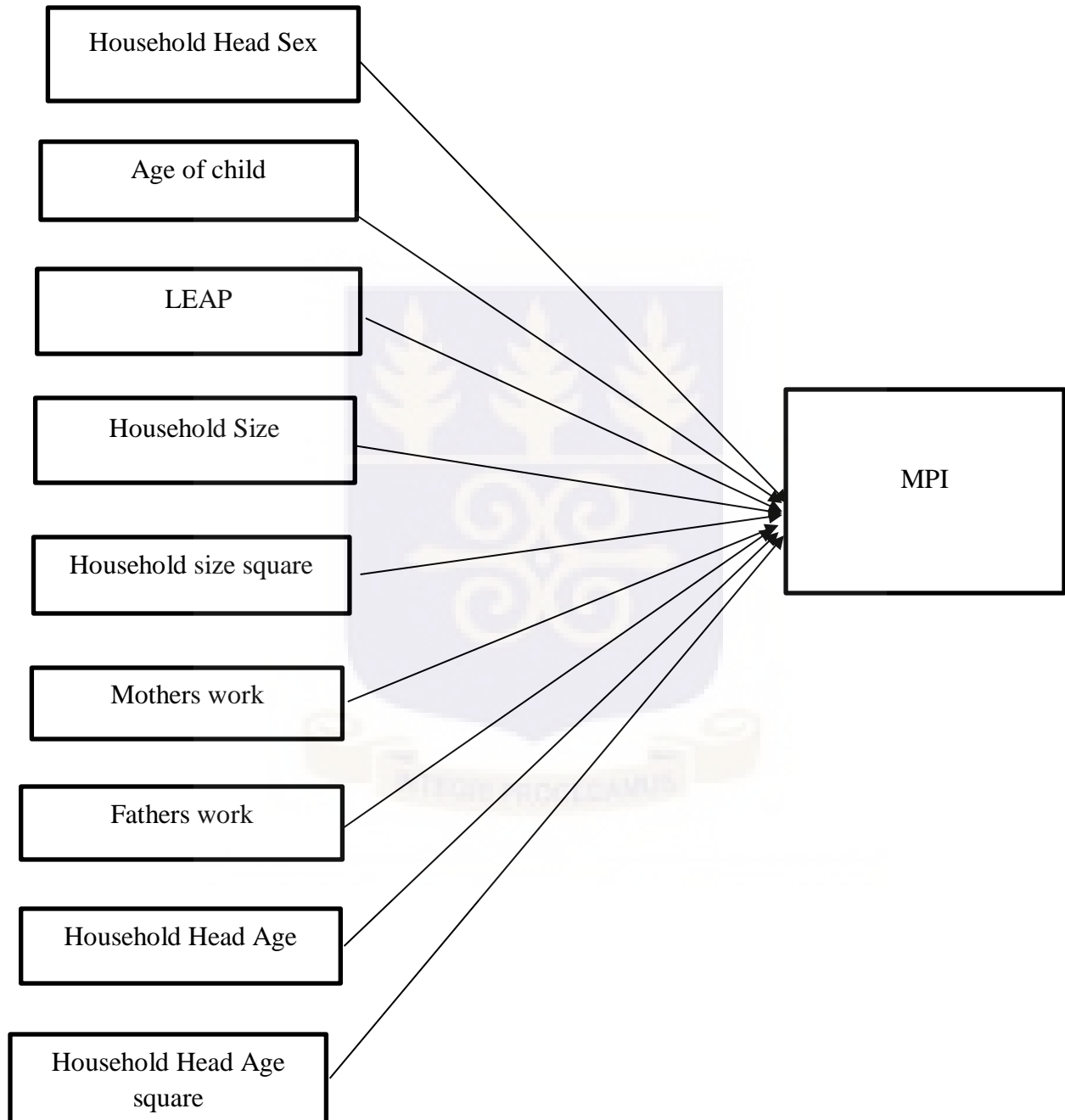


Figure 3.5: Conceptual framework depicting the impact of LEAP on multidimensional child poverty



3.6 Summary

This section reviews previous empirical studies that have examined the impact of cash transfer programs on multidimensional child poverty globally. The section was presented in four sections. First and second section presented information on definition of key concepts and the theoretical review of the study. Third and fourth section also presented empirical review and conceptual framework of the study. The empirical review revealed that there are inconclusive findings regarding the impact of cash transfers on multidimensional child poverty. Some of the findings revealed that cash transfers have no significant impact on MPI while others also found significant a positive impact on multidimensional poverty. Among all the empirical literature, only one study focused on children. Most of the studies treated all age groups as one. Surprisingly, the study that focused on only children found that cash transfers have no significant impact on multidimensional child poverty while all the studies that treated all age groups as one found some level of impact on multidimensional poverty. This implies that in studying the impact of cash transfer program on multidimensional poverty, analysis should be performed based on age groups. This clearly indicates why this study is important.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter explains the methodology used in this study. The section provides information on research design, data source, population and sample. It also describes the source of the data. Secondly, the econometric model used and any assumptions adopted are also explained in details in this section. Finally, this section gives a brief description of the variables used in the model and how the MPI was constructed.

4.2 Research Design

The approach used in this study involves a quantitative research design, specifically, a survey study. Bryman (2012, p.5) defined quantitative research as “a research strategy that emphasizes quantification in the collection and analysis of data.” This form of research design seeks to find answers to the questions beginning with to what extent, how many, how much (Rasinger, 2013). The quantitative research method was adopted for this study because it enables the researcher to employ regression and correlation analysis to establish the relationship between organizational restructuring and employees stress. The study used a cross sectional data for the analysis. The study employed both inferential and descriptive statistics

4.3 Data source

The study used household data that was jointly collected by the Institute of Statistical, Social and Economic Research (ISSER) and the University of North Carolina in the United State of America (USA). The data was collected on the same households in 2010 (Base year) and 2012 (Follow-up Year). Baseline data was collected from potential beneficiaries in three regions, namely; Brong-Ahafo, Central and Volta Region in the first quarter of 2010. The baseline data was collected on 1599 households. Out of this, 699 were beneficiaries of the LEAP. The follow-up data was collected in 2012 and it covered 1504 households. Out of this number, 646 households benefited from LEAP and the rest did not.

4.4 Model specification

Following the methodology adopted by other researchers (e.g Handa et.al, 2013; Thome et.al, 2013) in the field of impact evaluation (IE), this study also adopt the difference-in-difference (DID) estimator technique as preferred model in this study since data on both before and after the implementation of the LEAP is available; and also on the treatment and control group. The DID model is stated as:

$$Y_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 T_t + \beta_3 (T_t \bullet D_{it}) + \sum \beta_i Z_i + \mu_{it}$$

Where Y_{it} represents the Multidimensional Poverty Index (MPI) of household i at time t ; D_{it} is a dummy equal to 1 if the household received the treatment and 0 if it didn't receive the treatment; T_t is a time dummy equal to 0 for the baseline (2010) and 1 for the follow up round (2012); $T_t \bullet D_{it}$ is the interaction between the intervention and Time dummies and U_{it} is an error term. Vector Z_i was introduced to account for all possible factors such as household head sex, age, education and

parent occupation. These factors are explained further in the next section. β_0 is a constant term; β_1 also controls for the time invariant difference between the beneficiaries and non-beneficiaries; β_2 represents the movement effect from the baseline to the follow-up period; and β_3 captures the treatment effect. Although all the parameters are relevant for the study, much attention is given to β_3 because it captures the effect that LEAP has on the MPI.

4.5 DID estimator framework

The study begins this with the set-up of randomized treatment assignment. Let N represent the number of households that are eligible for the LEAP program (population of the study). Let N_T represent the treatment group. According to Handa et.al (2013), a better way of grouping LEAP-eligible households into treatment and control is via randomization. However, it is often impossible in large-scale programs that are ongoing. As a result, the comparison group was selected from a national household survey using the propensity score matching approach. The PSM approach within the framework of DID estimation has been proven to perform extremely better at replicating the experimental benchmark in social experiment (Heckman et.al, 1997).

Let $N_C = N - N_T$ represent the Control group. Let D_i denote a dummy variable equal to 1 if a household benefit from LEAP and 0 if the household does not receive the LEAP. Let Y_i represent the dependent variable (outcome of interest) such that the outcome is specified as $Y_i(D_i)$ for every household. The treatment effect for household i , A_i defined as:

$$A_i = Y_i(1) - Y_i(0) \text{-----} (1)$$

Per equation (1), only one outcome variable is observable; and that is whether the household benefitted from the LEAP or not. This leaves the counterfactual component $Y_i(0)$ in equation (1) unknown. Average Treatment Effect (ATE) measures the average difference in outcome between the treatment and control group and Average Treatment Effect on Treated (ATET) measures the average impact of LEAP on those who actually benefited. ATET measures the average difference in outcome between those who were enrolled on LEAP and if they had not been enrolled on it. ATE can be specified as:

$$ATE = E[Y(1)] - E[Y(0)] \text{-----} (3)$$

The ATET can also be specified as

$$ATET = E[T | D = 1] = E[Y(1) | D = 1] - E[Y(0) | D = 1] \text{.....} (4)$$

Since the data for this study is in a longitudinal nature, the estimator in equation (4) can be improved by subtracting off the difference in base year outcomes between the beneficiaries and non-beneficiaries as specified below:

$$ATET = E[\tau_t - \tau_{t-1} | D = 1] = E[(Y(1)_t - (Y(0)_t - (Y(1)_{t-1} - Y(0)_{t-1}) | D = 1] =$$

$$E[(Y(1)_t - Y(1)_{t-1}) | D = 1] - E[(Y(0)_t - Y(0)_{t-1}) | D = 1]$$

..... (5)

Where $t-1$ and t represent time period before and after the implementation of the LEAP program. The Equation (5) presents the regression which is the same as Difference-in-Difference estimator with explanatory variables in equation (1).

4.6 Variables considered

The variables used for this study consist of explanatory variables and dependent variable. MPI was used as the dependent variable. The explanatory variables considered corresponded to household, parental and child-specific characteristics. Three main variables of interest are Time dummy, Treatment dummy and the interaction between Time dummy and treatment dummy.

4.6.1 Global MPI

The study computed MPI based on Oxford Poverty Human Development initiative (OPHI). In computing the MPI, the study grouped children into two groups, namely pre-school (0-4 years) and school aged children (5-17 years). With respect to pre-school, MPI was computed with five dimensions (nutrition, health, information, housing, sanitation) and 15 indicators of wellbeing (see Table 4.6.1a). In the case of school-aged children, five dimensions (education, health, information, housing, sanitation) and 15 indicators of child wellbeing were also used (see Table 4.6.1b).

Briefly, the structure of the global MPI follows Alkire and Foster (2011) with M_0 indicating the Adjusted Headcount Ratio is presented as:

Let $X_{ij} \in \mathbb{R}^+$ represent the achievement of each household $i = 1, 2, \dots, n$ in each indicator $j = 1, 2, \dots, d$, and let Z_j be the deprivation cut off of indicator j . Household i is deprived in indicator j if $g_{ij}^0 = 1$ when $X_{ij} < Z_j$ and $g_{ij}^0 = 0$ otherwise. The deprivation of each household is weighted by the indicator's which is denoted by W_j such that $\sum_j W_j = 1$. From this, we can compute the deprivation score for each household which is defined as the weighted sum of deprivations $c_i = \sum_{j=1}^d W_j g_{ij}^0$. The poor household is identified using a second cut off, the poverty cut off, which is denoted by k . The k represents the proportion of minimum deprivation a household

must experience in order to be classified as poor. Threshold of 0.33 has been widely accepted as the poverty cut off. This study also adopts a threshold of 0.33 as the appropriate cut off. The deprivations of those not classified as poor are censored such that $g_{ij}^0(k) = g_{ij}^0$ when $C_i \geq k$ and $g_{ij}^0(k) = 0$ otherwise. The censored deprivation score is given by: $c_i(k) = \sum_{j=1}^d W_j g_{ij}^0(k)$.

The M_0 measure refers to the product of poverty headcount and poverty incidence. Poverty incidence refers to the proportion of households that are multidimensionally poor, and poverty incidence refers to the average deprivations among the poor. The poverty incidence (H_M) is defined mathematically as:

$$H_M = q_M / n \dots\dots\dots (1)$$

Where q_M refers to the number of households that are multidimensionally poor and n refers to total population.

Mathematically, Poverty intensity (A) is also defined as:

$$A = \sum_{i=1}^n c_i(k) / q_M \dots\dots\dots (2)$$

The MPI (M_0) is the product of H_M and A :

$$M_0 = H_M \times A = \frac{1}{n} \sum_{i=1}^n \sum_{j=1}^d W_j g_{ij}^0(k) \dots\dots\dots (3)$$

Table 4.6.1a: Dimensions, indicators, deprivation status and weight for Pre-school children

Dimensions	Indicators	Deprived if	Weight
Nutrition	Stunting	Child is stunted (height-for-age) <2SD mean)	1/15
	Wasting	Child is wasted (weight-for-height <2SD mean)	1/15
	underweight	Child is underweight (weight-for-age) <2SD mean)	1/15
Health	No hospital	Child suffered any illness or injury and never consulted health care facility	1/15
	Health status	Child was rated as unhealthy	1/15
	Health insurance	Child does not own health insurance	1/15
Information	Mobile phone	Household has reported not having mobile phone	1/15
	Computer	Household has reported not having computer	1/15
	Internet	Household has reported not having internet	1/15
Housing	Roof and floor	Both roof and floor are made of natural materials which are considered not permanent	1/15
	Electricity	Household does not have electricity	1/15
	overcrowding	Household has on average more than four people sleeping in a room	1/15
Sanitation	Unsafe water	Household use unsafe water such as unprotected well, river stream, rain water and pond for drinking	1/15
	Cooking fuel		1/15
	Unimproved toilet	Household uses unimproved toilet facility	1/15

Table 4.6.1b: Dimensions, indicators, deprivation status and weight for school-aged children

Dimension	Indicators	Deprived if	Weight
Health	No hospital	Child suffered any illness or injury and never consulted health care facility	1/15
	Health status	Child was rated as unhealthy	1/15
	Health insurance	Child does not own health insurance	1/15
Information	Mobile phone	Household has reported not having mobile phone	1/15
	Computer	Household has reported not having computer	1/15
	Internet	Household has reported not having internet	1/15
Sanitation	Unsafe water	Household use unsafe water such as unprotected well, river stream, rain water and pond for drinking	1/15
	Cooking fuel	Child was rated as unhealthy	1/15
	Unimproved toilet	Household uses unimproved toilet facility	1/15
Housing	Roof and floor	Both roof and floor are made of natural materials which are considered not permanent	1/15
	overcrowding	Household has on average more than four people sleeping in a room	1/15
	Electricity	Household does not have electricity	1/15
Education	Enrollment	Child is attending school	1/15
	Books	Child does not have access to any of the needed books	1/15
	Attendance	Number of class hours miss more than 6 hours in a week	1/15

4.7 Description of dimensions

4.7.1 Nutrition

Research has shown that under nutrition is a major cause of under-five mortality in Africa not excluding Ghana. Three indicators, namely stunting, wasting and underweight were under nutrition. The survey collected information on weight (kilograms) and height (centimeters) of pre-school children. A child was classified as underweight if weight-for-age is below 2 standard

Deviation, classified as stunt if height-for-age is below 2 standard deviation and wasting if weight-for-height is less than 2 standard deviation. Nutrition dimension was considered in the case of only pre-school children. The dimension and cut off values has been used in other studies for measuring poverty (see Alkire and Rochie, 2012).

4.7.2 Health

Under health dimension, three indicators (illness, health insurance and health status) were considered for all the three groups. In the case of no hospital, a child is said to be deprived if child suffered any illness or injury and never consulted any health care facility during the past two weeks. With respect to health status, a child is said to be deprived if the health was rated as unhealthy or somehow unhealthy. In the case of health insurance, a child is said to be deprived if the child does not own health insurance

4.7.3 Information

In the case of information, three indicators, namely mobile phone, personal computer and internet. A child is said to be deprived if the child lives in a household that does not have access to internet, personal computer or mobile phone.

4.7.4 Sanitation

Good sanitation can reduce child mortality through prevention of water contamination which can cause diarrhea. It can also prevent the spread of disease such as malaria which kills a lot of children in Ghana. Three indicators, namely toilet, overcrowding and water was considered under this

dimension. A child is said to be deprived in water if the source of water is from unprotected well, river or stream, rain water or pond/lake/dam. Child is said to be deprived in **overcrowding** if the average number of people that sleep in a bedroom is more than 4. With respect to toilet facility, child is deprived if the child uses unimproved toilet facilities open defecation, pit latrines and toilet in another house.

4.7.5 Housing

In the case of housing, three indicators (electricity, roof and floor, cooking fuel) were used. A child is said to be deprived if a child lives in a household that does not have access to electricity. With respect to cooking fuel, a child is said to be deprived if he/she lives in a household that use wood or charcoal to cook. In the case of roof and floor material, a child is said to be deprived if he/she lives in a household that use palm leaves, wood, Bamboo as roof or deprived if household uses earth or mud or wood or stone

4.7.6 Education

Only children aged 5 to 17 years were considered in this dimension. three indicators (needed text books, attendance, enrollment) were considered under this dimension. First, a child is said to be deprived if the child does not have access to any of the textbooks needed for school. In the case of attendance, a child is said to be deprived if the child misses' classes class more than 6 hours in a week. With respect to enrollment, a child is said to be deprived if he/she is not attending school.

4.8 Description of independent variables

The selection of various covariates for this study is based on the extensive review of literature. With respect to household and individual characteristics, the following covariates were included in our models; household size, squared of household size, sex, age and age square of household head and parent's occupation. Studies have shown that household size has a robust and positive relationship with poverty (e.g Fofack 2002; Marrugo et.al 2015). Research has shown that the gender of the household head significantly affects the poverty level of a household and most often, household headed by women are poorer than those headed by men (Fofack, 2002). Women play a major role in labor market and the management of household financially, yet they are normally discriminated in terms of wage payment, access to finance, access to land etc. These discriminations cripple the economic activities of these women and makes them poorer both monetary and non-monetary terms.

It is widely known that poor households tend to have high average family size; one would expect the dependency ratio to be higher in the poor family than the non-poor family. Table 4.8 below describes the variables that were controlled for in the study.

Table 4.8: Description of variables

VARIABLE	DESCRIPTION OF THE VARIABLE
DEPENDENT VARIABLE	
MPI	Ranges from 0 to 1
Independent Variable	
TREAT (D)	1= Beneficiary of LEAP 0 = Non beneficiary of LEP
TIME	1= follow-up year 0= base year
IMPACT	The interaction effect between time and Treat
Age	Age of the child
Sex	=1 if child is a male = 0 if child is a female
Household size squared (HHSIZESQ)	Squared of number of household members
Household size (HHSIZE)	The number of members in the household
Fathers work	0= unemployed 1= Formal sector 2= Informal sector
Mothers work	0= unemployed 1= Formal sector 2= Informal sector
Household head sex (SHH)	=1 if head is male = 0 if head is female
household head age (AGEHEAD)	Number of years of household head
household head age square (AGEHEAD2)	Squared age of household head

Source: Author's own construct

CHAPTER FIVE

RESULTS AND DISCUSSION

5.0 Introduction

This section presents the analysis and discusses the findings of the LEAP program. This study ties the findings directly to the research on the study objectives. The analysis is presented in four sections. The first section presents descriptive statistics on demographic characteristics of the respondents. The second section presents analysis on research objective one, third and fourth section presents analysis on research objective two and three.

5.1 Descriptive statistics of respondents

This section presents descriptive statistics for both base and follow up year. As indicated in Table 5.1a, the average household size of children below 18 years in the base year was 3.8 and average household head age was 56 years. The result shows that 39.7% of the children were living with their fathers in the same household, 20.28% of the children had their fathers deceased and the remaining 40.2% of them had their fathers living in another household. In the case of mother's, the study found that 61.68% of children lived with their mothers in the same household, 11.89% had their mother's deceased and 26.43% had their mothers live in a different household. Further analysis based on T-test found that there is statistically significant difference between the number of orphans and household size of beneficiary households and non-beneficiary households.

Table 5.1a: Descriptive statistics for children (below 18 yrs) at the base year (2010)

Variable	Full sample			Non beneficiary			Beneficiary			T -test
	N	Mean	SD	N	Mean	SD	N	Mean	SD	
Household size	699	3.83	2.535	377	6.259947	2.80886	276	6.25	2.4670	0.0000 ***
Number of orphans per household	653	.1332	.530379	377	.0397878	.302486	276	.260869	.71660	0.0000 ***
Age of child	2,971	9.45	5.084	377	2.244032	1.40624	276	1.0942	3.767	0.0000 ***
Household head age	699	56.04	27.15	377	42.39	29.8256	276	66.09	20.352	0.6897
Categorical variables										
	N	%		N	%		N	%		
Sex										
Male	1,432	49.81		801	49.44		632	51.59		
Female	1,443	50.19		819	50.56		593	48.41		
Father lives in the household										
Yes	1,124	39.70		714	63.52		410	36.48		
No, deceased	574	20.28		211	36.76		363	63.24		
No, another household	1,133	40.02		165	61.17		440	38.83		
Mother lives in the household										
Yes	742	61.68		250	33.69		492	66.31		
No, deceased	143	11.89		53	37.06		90	62.94		
No, another household	318	26.43		118	37.11		200	62.89		

*** $P < 0.01$ ** $P < 0.05$ * $P < .1$

Table 5.1b: Descriptive statistics for children (below 18 yrs) at the follow up year (2012)

Variable	Full sample			Non beneficiary			Beneficiary			T -test
	N	Mean	SD	N	Mean	SD	N	Mean	SD	
Household size	460	6.9	5.2847	307	7.899023	6.04284	153	4.8954	.176481	0.0000 ***
Number of orphans per household	460	.0521739	.26710	307	.0521173	.2751478	153	.05228	.020298	0.9949
Age	460	2.397826	1.3737	307	2.368078	1.368897	153	2.4575	1.38595	0.5112
Household head age										
Categorical variables										
	N	%		N	%		N	%		
Sex										
Male	244	53.04		168	54.72		76	49.67		
Female	216	46.96		139	45.28		77	50.33		
Father lives in the household										
Yes	229	49.78		165	53.75		64	41.83		
No, deceased	59	12.83		31	10.10		28	18.30		
No, another household	172	37.39		111	36.16		61	39.87		
Mother lives in the household										
Yes	381	82.83		257	83.71		124	81.05		
No, deceased	23	5.00		15	4.89		8	5.23		
No, another household	56	12.17		35	11.40		21	13.73		

*** $P < 0.01$ ** $P < 0.05$ * $P < .1$

5.2 Trends in child deprivation

The first objective of the study was to investigate the trends in child deprivation for pre-school and school-aged children. The aim of this section is to compare the deprivation rate of children below 5 years and children from 5 to 17 years in 2010 and 2012 survey. This will enable us to see whether the deprivation rate has been on the rise or otherwise. Although, poverty can be measured jointly to include children, youth and adult as in the case of Roelen et al. (2009), Gordon et al. (2003a), this study looks at it from age-specific perspective since it will allow for the identification of areas that need urgent intervention.

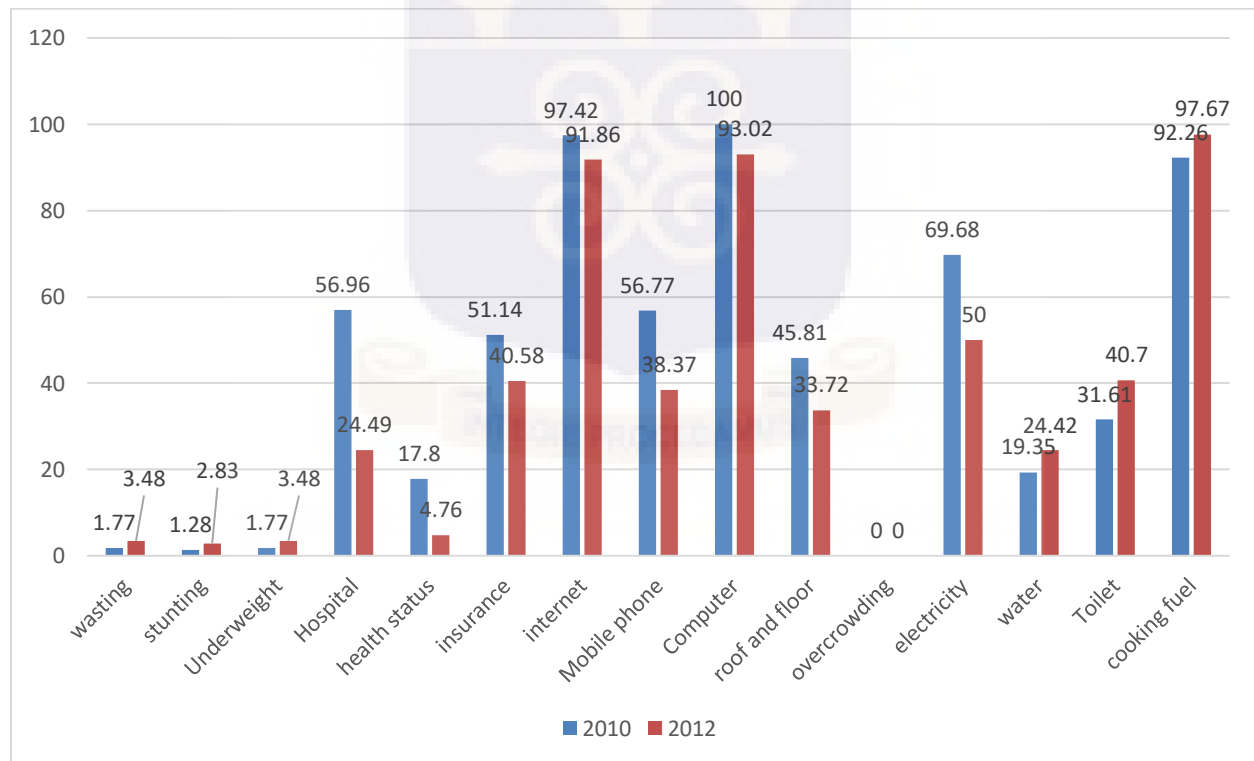
5.2.1 Deprivation for pre-school (0-4 yrs) children

The first objective of the study was to explore the trends in child deprivation for all the 15 indicators used in computing MPI. Five dimensions (nutrition, health, information, housing, sanitation) and fifteen indicators were considered in the study. With respect to nutrition dimension, the study found that the proportion of pre-school children that were classified as wasting rose from 1.77% in 2010 to 3.48% in 2012 and that of stunt rose from 1.28% in 2010 to 2.83% in 2012. Exactly 1.77% of pre-school children were underweight in 2010 and it rose to 3.48% in 2012.

In the case of health dimension, 56.96% of pre-school children were deprived in hospital in 2010 and it fell to 24.49% in 2012. Exactly 17.8% were rated as being unhealthy in 2010 and it fell to 4.76% in 2012. Additionally, the study found that the proportion of pre-school children deprived in health insurance decreased from 51.14% in 2010 to 40.58% in 2012. With respect to information, 56.77% were deprived in mobile phone in 2010 and it fell to 38.37% in 2012. Exactly

97.42% were deprived in internet in 2010 and it fell marginally to 91.86%. With respect to sanitation, 19.35 % were deprived in water in 2010 and it rose to 24.42% in 2012. Again, 31.61% were deprived in toilet in 2010 and it rose to 40.7% in 2012. Figure 5.2.1 depicts the results on trends in child deprivation of pre-school children in 2010 and 2012. As presented in figure 5.2.1, indicators such as wasting, stunting, underweight, cooking fuel, toilet facility and water experienced a rise in the level of deprivation in 2012 while indicators such as hospital, health status, health insurance, internet, mobile phone and computer experienced a reduction in deprivation level in 2012.

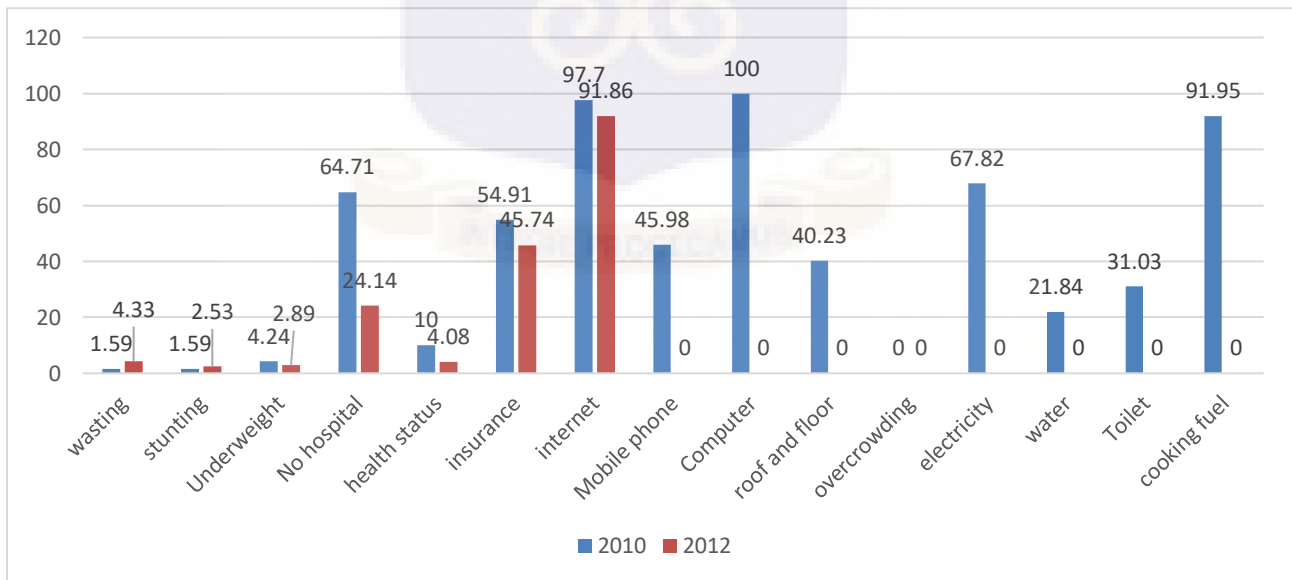
Figure 5.2.1: Trends in deprivation for pre-school children



5.2.2 Deprivation analysis for pre-school children based on non-beneficiary households

This section presents deprivation analysis for pre-school children based on Non-beneficiary households. As indicated in Figure 5.2.2 below, 1.59% of pre-school children in non-beneficiary households were deprived in wasting in 2010 and it rose to 4.33% in 2012, 1.59% were classified as stunted in 2010 and it rose to 2.53% in 2012 and 4.24% were classified as underweight and it fell to 2.89% in 2012. In the case of health dimension, the study found that 64.71%, 10% and 54.91% were deprived in hospital, health status and insurance respectively in 2010 and it fell to 24.14%, 4.08% and 45.74% in 2012. With respect to information dimension, the study found that 97.7%, 45.98% and 100% were deprived in internet, mobile phone and computer respectively in 2010. None of the children were deprived in mobile phone, computer, roof and floor, overcrowding, electricity, water, toilet and cooking fuel in 2012.

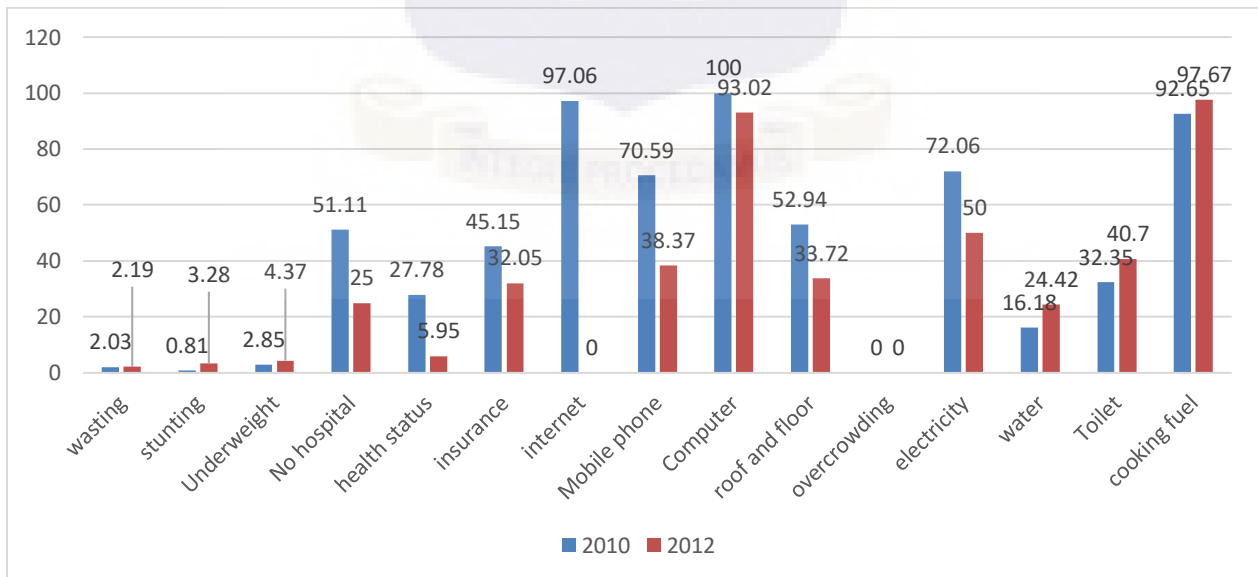
Figure 5.2.2: Trends in deprivation for pre-school children based on non-beneficiary status



5.2.3 Deprivation analysis for pre-school based on beneficiary households

This section presents deprivation analysis for pre-school children based on beneficiary households. As indicated in Figure 5.2.3 below, 2.03% of pre-school children in beneficiary households were deprived in wasting in 2010 and it rose marginally to 2.19% in 2012, 0.81% were classified as stunted in 2010 and it rose to 3.28% in 2012 and 2.85% were classified as underweight and it rose to 4.37% in 2012. In the case of health dimension, the study found that 51.11%, 27.78% and 45.15% were deprived in hospital, health status and insurance respectively in 2010 and it fell to 25%, 5.95% and 32.05% in 2012. With respect to information dimension, the study found that 97.06%, 70.59% and 100% were deprived in internet, mobile phone and computer respectively in 2010. In 2012, the proportion of children deprived in mobile phone and computer fell to 38.37% and 93.02% respectively. In the case of sanitation, 16.18%, 32.35% and 92.65% were deprived in water, toilet and cooking fuel respectively in 2010 and they rose to 24.42%, 40.7% and 97.67%

Figure 5.2.3: Trends in deprivation for pre-school children based on beneficiary status

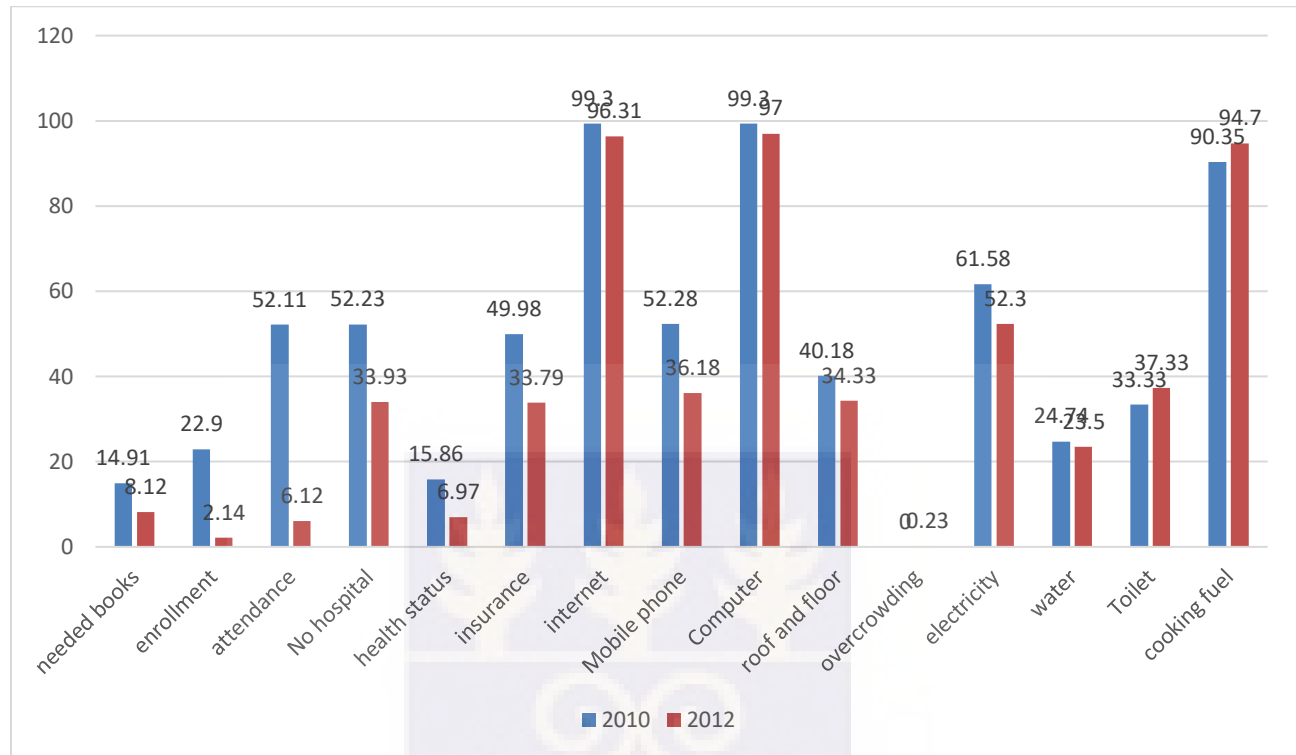


5.2.4 Deprivation for school-aged children

This section also presents the results on trends in child deprivation for the indicators used in computing MPI school-aged children. Similarly, fifteen indicators and 5 dimensions (education, health, information, housing, sanitation) were considered. With respect to educational dimension, the study found that the proportion of school-aged children that were deprived in required textbooks in school fell from 14.91% in 2010 to 8.12% in 2012 and the proportion that were deprived in enrollment also fell from 22.9% in 2010 to 2.14% in 2012. Exactly 52.11% were deprived in attendance in 2010 and it fell to 6.12% in 2012.

In the case of health dimension, 52.23% of school aged children were deprived in hospital in 2010 and it fell to 33.93% in 2012. Exactly 15.86% were rated as being unhealthy in 2010 and it fell to 6.97% in 2012. Additionally, the study found that the proportion of school aged children deprived in health insurance decreased from 49.98% in 2010 to 33.79% in 2012. With respect to information, 52.28% were deprived in mobile phone in 2010 and it fell to 36.18% in 2012. Exactly 99.3% were deprived in internet in 2010 and it fell marginally to 96.31%. With respect to sanitation, 24.74 % were deprived in water in 2010 and it fell marginally to 23.5% in 2012. Again, 33.33% were deprived in toilet in 2010 and it rose to 37.33% in 2012. Figure 5.3 depicts the results on trends in child deprivation of school-aged children in 2010 and 2012.

5.2.4: Trends in deprivation for school-aged children

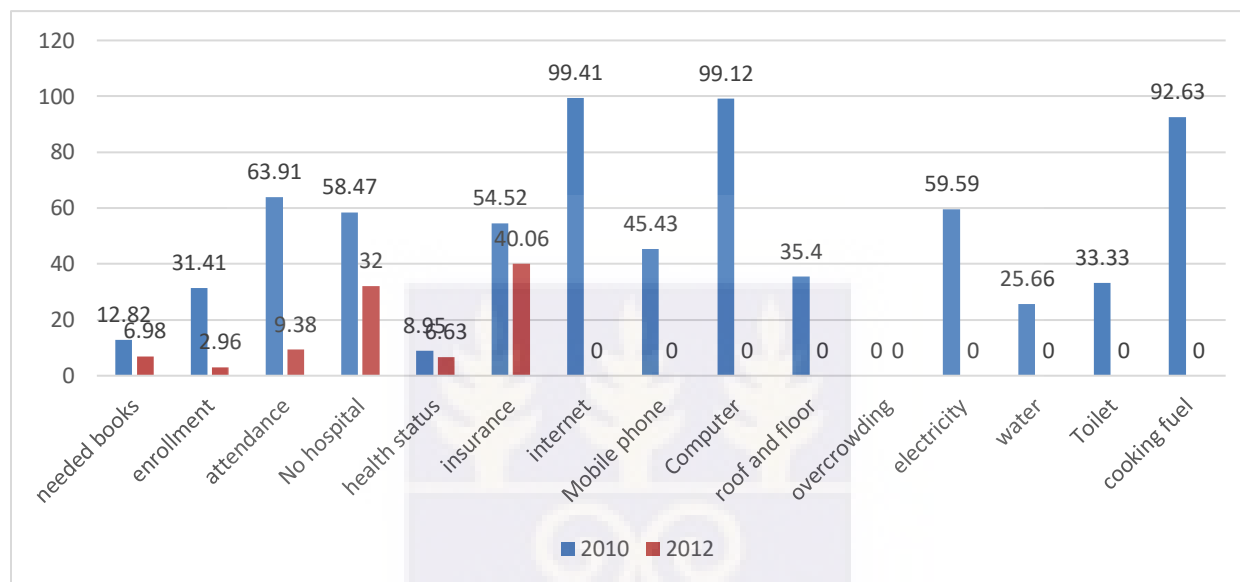


5.2.5 Deprivation for school-aged children based on non-beneficiary households

This section presents deprivation analysis for school-aged children based on non-beneficiary households. As indicated in Figure 5.2.5 below, 12.82% of school-aged children in non-beneficiary households were deprived in required text books in 2010 and it fell to 6.98% in 2012, 31.41% were deprived in enrollment in 2010 and it fell to 2.96% in 2012 and 63.91% were deprived in attendance in 2010 and it fell to 9.38% in 2012. In the case of health dimension, the study found that 58.47%, 8.95% and 54.52% were deprived in hospital, health status and insurance respectively in 2010 and it fell to 32%, 6.63% and 40.06% respectively in 2012. With respect to information dimension, the study found that 99.41%, 45.43% and 9.12% were deprived in internet,

mobile phone and computer respectively in 2010. None of the children were deprived in mobile phone, computer, roof and floor, overcrowding, electricity, water, toilet and cooking fuel in 2012.

Figure 5.2.5: Trends in deprivation for school aged children based on non-beneficiary households

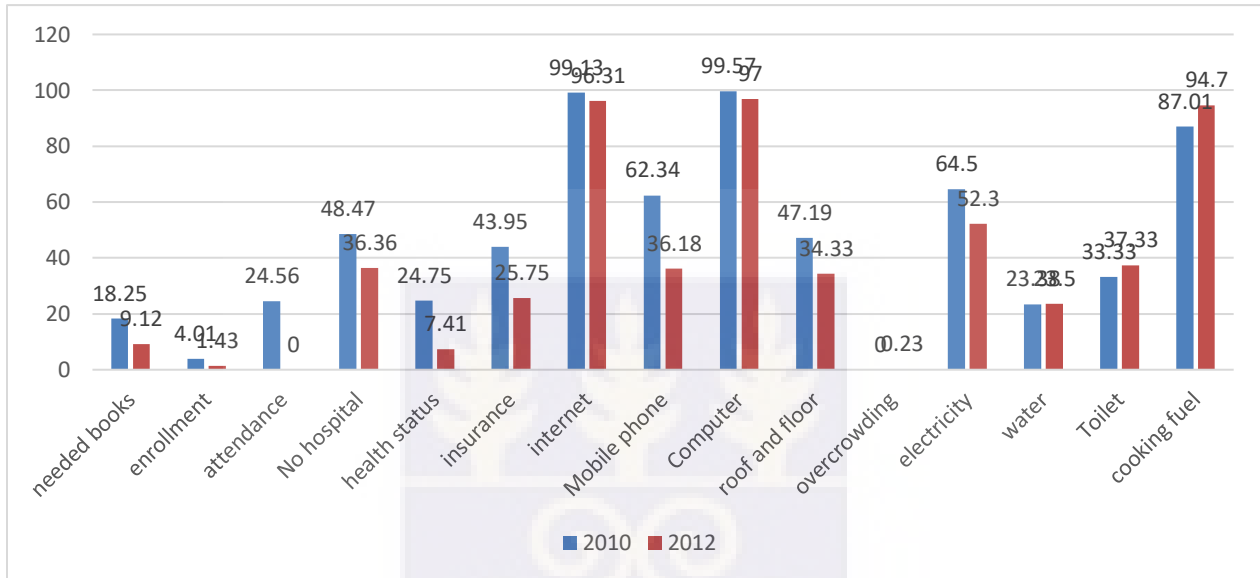


5.2.6 Deprivation analysis for school-aged children based on beneficiary households

This section presents deprivation analysis for school-aged children based on non-beneficiary households. As indicated in Figure 5.2.6 below, 18.25% of school-aged children in non-beneficiary households were deprived in required text books in 2010 and it fell to 9.12% in 2012, 4.01% were deprived in enrollment in 2010 and it fell to 1.43% in 2012. Additionally, 24.56% were deprived in attendance in 2010 and it fell to 0% in 2012. In the case of health dimension, the study found that 48.47%, 24.75% and 43.95% were deprived in hospital, health status and insurance respectively in 2010 and it fell to 36.36%, 7.41% and 25.75% respectively in 2012. With respect to information dimension, the study found that 99.13%, 62.34% and 99.57% were deprived

in internet, mobile phone and computer respectively in 2010 and it fell to 96.31%, 36.18% and 97% respectively in 2012.

Figure 5.2.6: Deprivation analysis for school-aged children based on beneficiary households



5.3 Trends in multidimensional child poverty

5.3.1 Trends in multidimensional child poverty (pre-school children)

This section presents findings on trends in multidimensional poverty for both pre-school and school aged children. Based on Alkire and Foster (2011), the study selected 0.33 as the most suitable cut off. As indicated in Table 5.3,1, 91.9% of pre-school children were poor in 2010 because they were deprived in 33.33% or more of the weighted MPI indicators and it fell to 83.5% in 2012. The intensity score for pre-school children in 2010 was 49.6%, indicating that the poor on average were deprived in 44.6% of the weighted indicators and it fell to 45.4% in 2012. The

MPI for pre-school children in 2010 was 45.6% and it fell to 37.9% in 2012. Additionally, the study found that 97.3% of pre-school children in beneficiary household were deprived in 33.33% or more of the weighted MPI in 2010 and it fell to 83.5% in 2012. In the case of non-beneficiary households, the study found that 87.2% of pre-school children were deprived in 33.33% or more of the weighted MPI indicators and it decreased to 0% in 2012.

Table 5.3.1: Trends in multidimensional child poverty (pre-school children)

	Full sample		Beneficiary		Non-beneficiary		Male		Females	
	2010	2012	2010	2012	2010	2012	2010	2012	2010	2012
Headcount(H)	0.919	0.835	0.973	0.835	0.872	0	0.912	0.811	0.925	0.857
Intensity (A)	0.496	0.454	0.513	0.454	0.481	0	0.499	.443	0.494	0.463
MPI (M0)	0.456	0.379	0.499	0.379	0.419	0	0.455	0.359	0.457	0.397

5.3.2 Trends in multidimensional child poverty (school-aged children)

This section presents findings on trends in multidimensional poverty for both pre-school and school aged children. Based on Alkire and Foster (2011), the study selected 0.33 as the most suitable cut off. As indicated in Table 5.3.2, 97.9% of school-aged children were poor in 2010 because they were deprived in 33.33% or more of the weighted MPI indicators and it fell to 93.5% in 2012. The intensity score for school aged children in 2010 was 50.1%, indicating that the poor are on average were deprived in 50.1% of the weighted indicators and it fell to 43.2% in 2012. The MPI for school-aged children in 2010 was 49.1% and it fell to 40.4% in 2012. Additionally, the study found that 96.8% of pre-school children in beneficiary household were deprived in 33.33% or more of the weighted MPI in 2010 and it fell to 93.5% in 2012. In the case of non-beneficiary

households, the study found that 98.5% of pre-school children were deprived in 33.33% or more of the weighted MPI indicators and it decreased to 0% in 2012.

Table 5.3.2: Trends in multidimensional child poverty (school-aged children)

	Full sample		Beneficiaries		Non-beneficiaries		Male		Females	
	2010	2012	2010	2012	2010	2012	2010	2012	2010	2012
Headcount(H)	0.979	0.935	0.968	0.935	0.985	0	0.980	0.889	0.978	1.000
Intensity (A)	0.501	0.432	0.559	0.432	0.487	0	0.502		0.501	
MPI (M0)	0.491	0.404	0.541	0.404	0.480	0	0.492	0.359	0.490	0.467

5.4 Impact of LEAP program on multidimensional child poverty

5.4.1 Impact of LEAP program on multidimensional poverty of pre-school children

The main objective of this study is to examine the impact of LEAP program on multidimensional child poverty in Ghana. This section presents results on the effects of the LEAP program on global MPI of pre-school children. Table 5.4.1 presents the reports on DID estimation model after controlling for the influence of independent variables such as age and sex of the child, household head sex, household size, household size square, mother's work and father's work. The Prob>F =0.0037 indicates that model is significant and at least one of the variables are able to explain the variation in MPI of pre-school children. The R-square value also indicates that the model is able to explain 14.01% of the variation in the model. None of the controlled variables in the model significantly explain part of the variation in the MPI of pre-school children. The coefficient of the

“treated” variable indicates the estimated difference in MPI between beneficiary and non-beneficiary children prior to the LEAP program. The coefficient of “Treated” suggest that the mean MPI of beneficiary children prior to LEAP program are 8.95% higher than that of non-beneficiary children ($\beta = .0894642$; $SD = .0227484$; $P < .05$).

The coefficient of “Time” variable also depicts the mean change in MPI from before and after introduction of LEAP program among the non-beneficiary households. The coefficient suggests that MPI significantly reduces by 14.56% in the follow up year ($\beta = -.1456313$; $SD = .0218646$; $P < .01$). The coefficient of “IMPACT” represents the true impact of LEAP program on MPI. The coefficient suggests that the MPI of pre-school children in beneficiary households are reduced by 9.04% more than children in non-beneficiary households by 9.04% ($\beta = -.0903595$; $SD = .0223231$; $P < .01$).

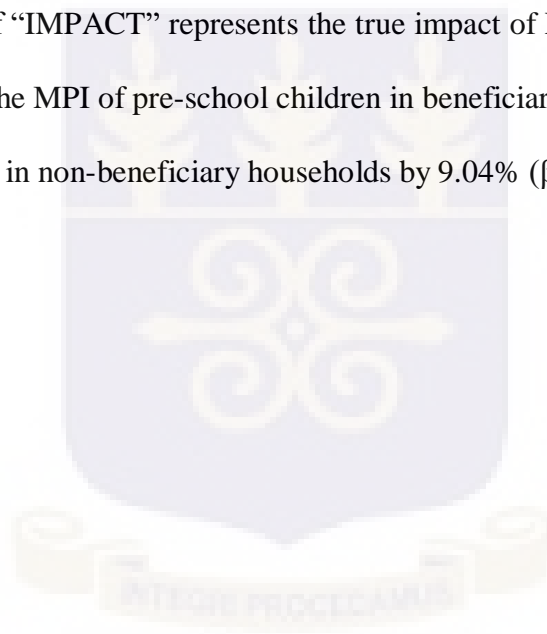


Table 5.4.1: Effects of LEAP program on MPI of pre-school children

Dependent Variable	MPI
Time	-.1456313 *** (.0218646)
Treated	.0894642 ** (.0227484)
IMPACT	-.0903595 *** (.0223231)
Age	.0000131 (.0066847)
Sex	-.0010835 (.0181838)
Hhage	.0005442 *** (.0001611)
Lhhagesq	.0207092 ** (.0102592)
Hhsex	-.035163 (.0195)
Hhsize	.0087603 (.0138066)
Lhhsizesq	-.0109007 (.0400918)
Mothers_work	
Formal sector	-.0276903 (.1067477)
Informal sector	-.0774169 (.1172584)
Fathers_work	
Formal sector	.0596146 (.0835867)
Informal Sector	.0361199 (.0859203)
Constant	.4164475 *** (.0608048)
Observations	145
Prob>F	0.0037
R-Squared	0.1401

*** $P < .01$ ** $P < 0.05$ * $P < 0.10$

5.4.2 Impact of LEAP program on multidimensional poverty of school children

This section presents results on the effects of the LEAP program on global MPI of school children. Table 5.4.2 presents the reports on DID estimation model after controlling for the influence of independent variables such as age and sex of the child, household head sex, household size, household size square, mother's work and father's work. The Prob>F =0.000 indicates that model is significant and at least one of the variables are able to explain variation in MPI of school children. The R-square value also indicates that the model is able to explain 11.14% of the variation in the model. The study found that household head sex, household size and household size squared significantly explain part of the variation in MPI of school children. The coefficient of "hhsex" suggest that the MPI of school children in households headed by male are 2.17% more than counterparts in households which are headed by females ($\beta = .0217108$; SD =.010434; $P < .05$). The coefficient of "hhsiz" also shows that, regardless of all other variables, a unit increase in household size significantly increases MPI of school aged children by 0.73% ($\beta = .0073763$; SD =.0023144; $P < .01$). The introduction of "lhhsizesq" shows an increase in household size will increase MPI to a certain point and it will begin to reduce.

The coefficient of "treated" suggest that the mean MPI of beneficiary children prior to LEAP program are 5.66% ($\beta = .0566415$; SD =.0106328; $P < .01$) higher than that of non-beneficiary children. The coefficient of "Time" suggests that MPI significantly reduces by 4.10% ($\beta = -.0410418$; SD =.0134749; $P < .01$) in the follow up year. The coefficient of "IMPACT" represents the true impact of LEAP program on MPI. The coefficient suggests that their MPI of school children enrolled on LEAP program are 6.7% more than children in non-beneficiary households ($\beta = .0674327$; SD =.0167976; $P < .01$).

Table 5.4.2: Effects of LEAP program on MPI of school-aged children

Dependent Variable	MPI
Time	-.0410418 *** (.0134749)
Treated	.0566415 *** (.0106328)
IMPACT	.0674327*** (.0167976)
Age	.0007035 (.0010014)
Sex	-.0058567 (.0072952)
Hhage	.015442 *** (.01411)
lhagesq	.0207092 ** (.102592)
hhsex	.0217108 ** (.010434)
hhsize	.0073763 *** (.0023144)
lhhsizesq	-.0147397 ** (.0086324)
Mothers_work	
Formal sector	-.0276903 (.1067477)
Informal sector	-.0774169 (.1172584)
Fathers_work	
Formal sector	.0541541 (.0654928)
Informal Sector	.0653617 (.0665891)
Constant	.5082827 *** (.1221679)
Observations	1,063
Prob>F	0.0000
R-Squared	0.1114

*** $P < .01$ ** $P < 0.05$ * $P < 0.10$

5.5 Discussion of results

The study examined the change in deprivation rate among children aged 0-17 years between 2010 and 2012 as well as the impact of cash transfer on multidimensional child poverty in Ghana. The first finding from the study revealed that deprivation was reduced in some indicators while it increased for others too. The study revealed that the proportion of pre-school children that were deprived in all indicators nutrition and sanitation rose in 2012 while that of health, information and housing decreased in 2012. In the case of school-aged children, the study revealed that the proportion of school-aged children deprived in all indicators of education, health, information and housing decreased in 2012 while that of sanitation increased. This finding is consistent with Pasha (2016) who also found that the proportion of children deprived in nutrition and sanitation rose in 2012 while that of education, information and health decreased. However, in the case of Pasha (2016), children were not grouped into pre-school and school-aged children.

Further analysis based on beneficiary status revealed that the proportion of pre-school children deprived in nutrition and sanitation in beneficiary household rose in 2012 while that of information, housing and health decreased. Again, this study is in tandem with that of Pasha (2016) who also found that proportion of children deprived in nutrition and sanitation in 2010 rose in 2012 for grant households. Also, the study further investigated the impact of LEAP on multidimensional child poverty in Ghana. The study revealed that LEAP significantly reduces multidimensional poverty among pre-school children in beneficiary households more than counterparts in non-beneficiary households. This study is consistent with that of Pasha (2016) and Ferrone et.al (2017) who all found that cash transfer has positive impact on multidimensional poverty. For instance, Pasha (2016) found that an increase in money from the cash grant in South Africa results in lower multidimensional level in receiving households. In the case of school-aged children, the program

had no impact on multidimensional poverty and children in beneficiary households tend to be poorer than non-beneficiary households. A plausible reason for this finding is the irregular flow of the monthly allowance. Usually, beneficiary households do not receive allowance on a monthly basis and this tends to reduce the rate at which they expect the program to impact poverty. This finding is consistent with that of Ferrone et.al (2017) who found that Malawi SCTP has no impact on multidimensional poverty of school-aged children. However, this finding contradicts with Song and Katsushi (2019) who found that Safety Net program in Kenya significantly reduces MPI of beneficiary households more than non-beneficiary households.



CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.0 Introduction

This chapter summarizes the findings, presents the conclusions of the study, and sets forth the recommendations based on the findings of the study.

6.1 Summary

The main objective of this study was to examine the effect of LEAP program on multidimensional child poverty in Ghana. The study also explored changes in child deprivation for children in 2010 and 2012. The study used secondary data obtained from Institute of Statistical Social Economic Research to study the impact of cash transfer on multidimensional child poverty. The study employed quantitative research design. Both inferential and descriptive statistics were used to achieve objectives of the study. Descriptive statistics was presented using mean and percentages while inferential statistic was presented using difference-in-difference estimation technique.

This research was carried out using data from ISSER. The data was collected on same households in 2010 (base year) and 2012 (follow up year) from three regions, namely Brong-Ahafo, Central and Volta. Exactly 1,599 households of which 699 households were beneficiaries of LEAP program. The follow up year also had information on 1,504 households of which 646 households were beneficiaries of LEAP program. Children were grouped into two, namely pre-school and school-aged children. The study adopted Alkire and Foster (2011) to compute the MPI. In the case of pre-school children, 5 dimensions (nutrition, health, information, housing, sanitation) and 15

indicators were used. Three indicators were used under each of the dimensions. Indicators such as stunting, wasting and underweight were used in nutrition dimension and hospital, health status and health insurance were used in the case of health. With respect to information, mobile phone, computers and internet were used. Sanitation dimension also made use of indicators such as cooking fuel, water and unimproved toilet facilities. In the case of school aged children, five dimensions (education, health, information, housing, sanitation) and 15 indicators were used.

The first objective of the study was to examine the trends in deprivation of the welfare indicators. In the case of pre-school children, the study found that the proportion of children that were deprived in nutrition, health, information and housing indicators in 2010 decreased in 2012. However, the study found that proportion of children deprived in sanitation in 2010 increased in 2012. Further analysis based on beneficiary status found that the proportion of non-beneficiaries deprived in wasting and stunting in 2010 rose in 2012 while that of underweight, hospital, health status, insurance decreased in 2012. None of the children from non-beneficiary households were deprived in computer, roof, electricity, water, toilet and cooking fuel. With respect to school-aged children, the study found that the proportion of children that were deprived in needed books, attendance and enrollment decreased in 2012. With the exception of cooking fuel and toilet that experienced deprivation in 2012, all other indicators experienced reduction in 2012.

The second objective of the study was to examine the impact of cash transfers on multidimensional child poverty in Ghana. With respect to pre-school children, the study found that the MPI of pre-school children in beneficiary households were reduced by 9.04% more than children in non-beneficiary households. However, the study found that the MPI of school children enrolled on LEAP program were higher for children in beneficiary households than children in non-beneficiary households.

6.2 Policy implications

At the end of the study, the researcher makes these recommendations. Firstly, the findings suggest the proportion of pre-school children deprived in the three indicators of nutrition rose for all the three indicators. As a result, the study recommends that the program should supplement the family with children food nutrients aside the money. The study also recommends that managers of LEAP program should see to it that beneficiaries comply with the conditions that come along with the program. Some of the conditions attached to the program is that; all children must be enrolled on health insurance scheme. Surprisingly, we found out that some of the children from beneficiary households were deprived in health insurance in 2012. The gender ministry should institute policies that will ensure that beneficiaries comply with the conditions.

Lastly, the study recommends that government should increase the monthly allowance given to beneficiaries. Larger amount of the allowance will enable households to cater for children up keep, living the family will little to invest in businesses that will leap them out of poverty.

6.3 Limitation of the study

Like any other research, this study is also confronted with some limitations that are worth mentioning. First, the study of multidimensional poverty is normally limited by unavailability of data and the situation wasn't different from my work. It is important to acknowledge that data used for the study did not have information on child indicators such as mortality, psychological support, participation, expression of opinion, empowerment and opportunity. These missing indicators relate to capabilities and their omission implies that our findings may not really reflect the real situation of child poverty.

Secondly, different indicators of multidimensional poverty were used in the two age groups. For instance, in computing MPI for pre-school children, the study made use of dimension such as nutrition while the school-aged did not use it. Same as, the school aged group made use of educational dimension while was not considered it. This means that we cannot make direct comparison between the two groups based on the estimated results.

6.4 Future studies and conclusion

The analysis in this thesis provides empirical evidence on the profile of child poverty measures and some of the factors such as mother's education, household size, and marital status of the household head, which can all influence multidimensional child poverty. However, in order to get a deeper understanding of child well-being in Ghana, more research is needed. Firstly, the study can explore the importance that children attached to these indicators in their lives since it was excluded in this study. The study concluded that LEAP program has no significant impact on multidimensional poverty of school-aged children in Ghana. Due to this shortcoming in our study, future studies can use qualitative approaches such as participatory methods that allow children to express their opinion to serve as a complement to our study. Secondly, there is a debate on the use of multidimensional and unidimensional approach. However, this study failed to perform comparative study between using the two approaches. Future study can assess whether the two approach identify different category of children as poor in the society. This study is important since it analyzes the impact of LEAP on non-traditional measures of poverty. Money-metric approaches to poverty measure may not identify all the children that are poor since it does not use child indicators to measure poverty. In context of Ghana, only few studies have measured poverty

using the multidimensional approach. After extensive reading, not a single document was found on the link between cash transfer and multidimensional child poverty.



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