

**AN ANALYSIS OF THE CONTRIBUTION OF THE GLOBAL
FUND IN THE HEALTH SECTOR OF DEVELOPING
COUNTRIES: THE CASE OF GHANA**

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BY

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**THIS DISSERTATION IS PRESENTED TO THE UNIVERSITY OF
GHANA, LEGON, IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE MASTER OF ARTS
DEGREE IN INTERNATIONAL AFFAIRS**

LEGON

JULY 2019

DECLARATION

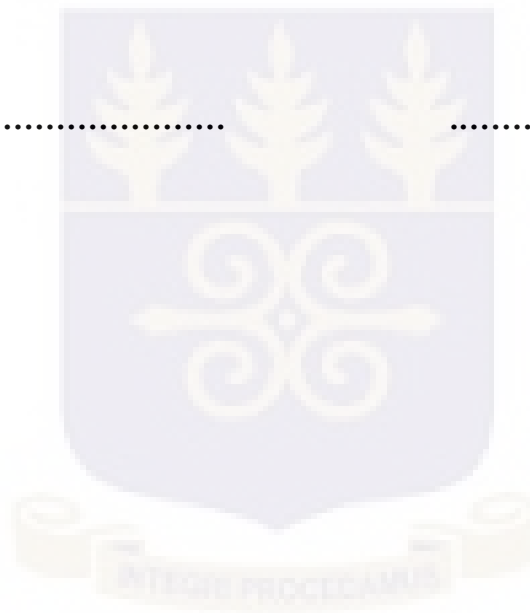
I hereby declare that, except for the references to other people's work, which have been acknowledged, this dissertation is an outcome of an original research conducted by me at the Legon Centre for International Affairs and Diplomacy (LECIAD), University of Ghana, Legon and under the supervision of Professor Samuel Nii Ardey Codjoe.

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DEDICATION

I dedicate this work to the Glory of the Almighty God, my parents; Mr Samuel K. and Mrs Vincentia A. Sablah and my siblings, particularly Andrews Sablah. I also dedicate this study to a special friend, Maxwell Aggrey.



ACKNOWLEDGEMENTS

I want to express my sincere appreciation to the Almighty God for the strength, care, guidance and wisdom He granted me throughout the course at LECIAD and in the writing of this dissertation. I wish to equally express my profound gratitude to my supervisor, Prof. Samuel Nii Ardey Codjoe, for his patience and constructive comments throughout this research. I also want to thank the director, lecturers, staff and librarians at LECIAD for the help offered me during my whole time of the study.

I would also like to extend my profound appreciation to officials at National AIDS/STI Control Programme (NACP), National Malaria Control Programme (NMCP), National Tuberculosis Control Programme (NTP), Planned Parenthood Association of Ghana (PPAG) and the Ghana Country Coordinating Mechanism of the Global Fund to Fight Against AIDS, Tuberculosis and Malaria (Ghana-CCM) for their cooperation and noble assistance during the study.

My special thanks to the 2019 Class of LECIAD particularly Asseku, William, Debbie, Aku Ganyo, Lucy, Adzo, Deborah, Wisdom, Rufus and Christian for making this course a memorable one.

I wish to express my appreciation to my family and my friends, Nii Kotey, Prince Ofori, Dorothy, Andoh, Gyan, Omane, Gandaa, Frederick, Yaotse and all others for their moral support.

To God Be the Glory for great things He has done.

LIST OF ABBREVIATIONS AND ACRONYMS

ACTs	-	Artemisinin-Based Combination Therapies
ADRA	-	Adventist Development and Relief Agency
AGAMal	-	AngloGold Ashanti Malaria Control Program Limited
AIDS	-	Acquired Immune Deficiency Syndrome
ALCO	-	Abidjan Lagos Corridor
AMFm	-	Affordable Medicines Facility-Malaria
ANC	-	Antenatal Coverage
ART	-	Antiretroviral Therapy
ARV	-	Anti-Retroviral
CBAs	-	Community Based Agents
CBOs	-	Community-Based Organizations
CCM	-	Country Coordinating Mechanism
CHAG	-	Christian Health Association Ghana
CHOs	-	Community Health Officers
CHPS	-	Community-Based Health Planning and Services
CHRAJ	-	Commission of Human Rights and Administrative Justice
CHWs	-	Community Health Workers
CSOs	-	Civil Society Organisations
DFID	-	UK Department for International Development (DFID)
DHD	-	District Health Directorate
DICs	-	Drop-In-Centers
DOTS	-	Directly Observed Treatment, Short Course
DPs	-	Development Partners
ECOSOC	-	Economic and Social Council

E-LMIS	-	Electronic Logistic Management Information System
FBOs	-	Faith-Based Organizations
FSWs	-	Female Sex Workers
G-8	-	Group of Eight
GAC	-	Ghana AIDS Commission
GDHS	-	Ghana Demographic and Health Survey
GDP	-	Gross Domestic Product
GHIs	-	Global Health Initiatives
GHS	-	Ghana Health Service
GLSS	-	Ghana Living Standards Survey
GPRS	-	Ghana Poverty Reduction Strategy
GSS	-	Ghana Statistical Service
HBC	-	Home-Based Care
HIV	-	Human Immunodeficiency Virus
HRH	-	Human Resources for Health
HSMTDP	-	Health Sector Medium Term Development Plan
HTC	-	HIV Testing and Counselling
iCCM	-	Integrated Community Case Management
ICT	-	Information and Communication Technology
IDSS	-	Integrated Disease Surveillance System
IMF	-	International Monetary Fund
IRM	-	Insecticide Resistance Monitoring
IRS	-	Indoor Residual Spraying
ITNs	-	Insecticide-Treated Mosquito Nets
JICA	-	Japan International Cooperation Agency
LECIAD	-	Legon Centre for International Affairs and Diplomacy
LFA	-	Local Fund Agent

LLINs	-	Long-Lasting Insecticides Treated Nets
LMD	-	Last-Mile Delivery
MDA	-	Ministries, Departments and Agencies
MDGs	-	Millennium Development Goals
MMDAs	-	Metropolitans, Municipals and District Assemblies
MNCs	-	Multi-National Corporations
MOH	-	Ministry of Health
MSM	-	Men who have Sex with Men
MTHS	-	Medium Term Health Strategy
NACP	-	National AIDS/STI Control Programme
NCDs	-	Non-Communicable Diseases
NEPWAN	-	Network of People Living With HIV/AIDS in Nigeria
NGOs	-	Non-Governmental Organisations
NHIA	-	National Health Insurance Authority
NHIS	-	National Health Insurance Scheme
NMCP	-	National Malaria Control Programme
NPM	-	New Public Management
NTP	-	National Tuberculosis Control Programme
OPD	-	Out-Patient Department
PATB	-	Persons Affected by TB
PEPFAR	-	President Emergency Plan for AIDS Relief
PLHIV	-	Persons living with HIV
PMD	-	Point Mass Distribution
PMI	-	President's Malaria Initiative
PMTCT	-	Prevention of Mother-To-Child Transmission
PPAG	-	Planned Parenthood Association of Ghana
PR	-	Principal Recipient

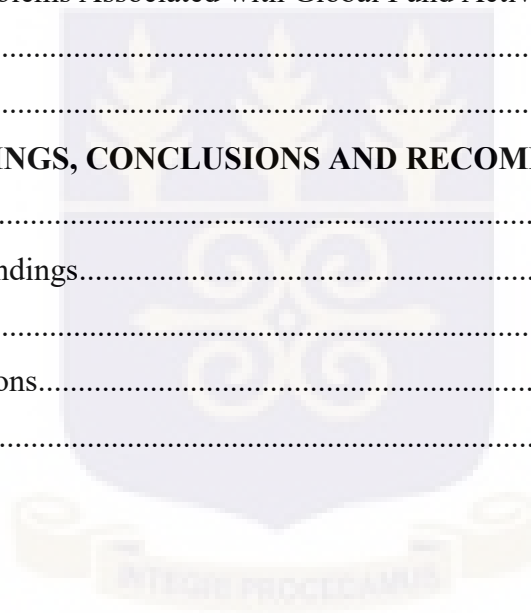
RDTs	-	Rapid Diagnostic Tests
RRIRV	-	Report, Requisition, Issue and Receipt Voucher
SBCC	-	Social Behaviour Change Communication
SCD	-	Sickle Cell Disease
SDGs	-	Sustainable Development Goals
SMC	-	Seasonal Malaria Chemoprevention
SOPs	-	Standard Operating Procedures
SSA	-	Sub-Saharan Africa
SSNIT	-	Social Security and National Insurance Trust
STIs	-	Sexually Transmitted Infections
TB	-	Tuberculosis
TRP	-	Technical Review Panel
TV	-	Television
TWG	-	Transitional Working Group
UN	-	United Nations
UNAIDS	-	The Joint United Nations Programme on HIV/AIDS
UNDP	-	United Nations Development Programme
UNICEF	-	United Nations International Children's Emergency Fund
UNMEER	-	United Nations Mission for Ebola Emergency Response
UPS	-	Uninterruptible Power Supply
WAPCAS	-	Ghana-West Africa Program to Combat AIDS and STI
WHO	-	World Health Organization
ZNAN	-	Zambian National AIDS Network

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ABSTRACT

The health sector is one of the under-resourced areas in most developing countries. The advent of human security following the 1994 UNDP report has increased the recognition of health in a security dimension and promoted further investments in the sector. In the last decade, Global Health Initiatives (GHIs) like the Global Fund have changed the landscape and architecture of health investments in most developing countries. The Global Fund currently plays a dominant role in the fight against three major infectious diseases in the world. This study analyses the contribution of the Global Fund in the health sector of developing countries using Ghana as a case study. The qualitative research approach was employed to gather, analyse and interpret data. In all, five interviews were conducted, and these respondents were carefully selected for the study. Based on interviews and secondary sources, the study identified several gaps in Ghana's health sector, which have provided room for the Global Fund to contribute to the health sector. The research identified the entire population, including key populations like Female Sex Workers as focus groups of Global Fund operations in Ghana. From the study, the Global Fund has made significant contributions such as assisting the government to reduce disease burden, promoting human resources for health, refurbishment of facilities and empowering civil societies, in the health sector. The study further revealed that the Global Fund contributes indirectly to health policies of Ghana and identified inadequate skilled personnel, occasional conflicts of interests, issues of programme sustainability and cultural beliefs as factors inhibiting the Global Fund's interventions in Ghana. The study recommends that the government and Global Fund should increase dialogue, intensify health education and cooperate to enhance health personnel capacity. The government should further regulate health staff transfers and increase health budget allocation to promote health development in the country.

CHAPTER ONE

INTRODUCTION

1.1 Background to Research Problem

The growth and development of every country can be assessed from the quality of life and health status of her citizens. Historically, international relations recognised state activities with the acquisition and maintenance of power, with issues of health occupying the lower echelons of national priorities (Katz & Singer, 2007). Poor health has caused adverse grief and destruction to humanity. This can be recalled from the vast death tolls caused by the Black Death or Plague between 1346 and 1353, the contraction of Asian flu around 1957, Smallpox in 1967 and discovery of infection Human Immunodeficiency Virus infection and Acquired Immune Deficiency Syndrome (HIV/AIDS) in 1981 (Benedictow, 2004; Henderson, 2009; Merson, 2006; Moore, 1993; Wang & Palese, 2009). These pandemics and the recognition of potential devastation of not prioritising health issues have triggered global sensitivity and catalysed actions to concert efforts in promoting better global health.

The Post-Cold War period has experienced intense responsiveness attached to health security on the international scene (Agyapong, 2017). The end of the cold war accompanied by the demise of superpower conflict predicated on military capacity created an intellectual and political room to consider other threats of non-military nature. Health Security is now recognised as part of the several fields of human security after it was highlighted in the United Nations Development Programme (UNDP) 1994 Report (Lo & Thomas, 2010).

The establishment of The Joint United Nations Programme on HIV/AIDS (UNAIDS) by the United Nations Economic and Social Council (ECOSOC) resolution in 1994 to mount and

support an expanded response to HIV/AIDS demonstrates global efforts to achieve better public health. Also, the UN resolution to create the UN Mission for Ebola Emergency Response (UNMEER) tasked with the responsibility of treatment of infected people, containment of the disease and maintenance of stability after the 2013 outbreak of the Ebola virus disease which caused significant mortalities in West Africa further remarks global efforts to achieving better global health. Policymakers now recognise the harmful impacts that health crisis may have on global welfare.

Efforts from various angles are therefore put in place to advance quality global health to avoid poor health. The activities of both state and non-state actors have been strengthened and expanded overwhelmingly in the provision of resources to support research studies into health and in the fight against diseases, particularly in developing countries. For example, non-state actors like the civil society played extremely significant roles to ensure the scale of antiretroviral therapy (ART) in Thailand not only through lobbying but also in the actual development and implementation of health policies in this regard (Tantivess & Walt, 2008). It is therefore not surprising that significant progress in the fields of science, public health methods and technology have been made over the last few decades than in several years before the twentieth century (Fielding, 1999; WHO, 2000). Despite all the increased roles and advancement in technology, health care gaps still exist in developing countries especially Sub-Saharan Africa (SSA) due to inadequate health expenditure, lack of sophisticated health equipment, lack of modern health facilities, disease burden, insufficient trained medical professionals, weak health reforms and non-availability of drugs (Bryan, Conway, Keesmaat, McKenna, & Richardson, 2010; Kirigia & Barry, 2008). This deficiency on the part of most African governments has increased the reliance on the generosity of donors and other development partners to complement their efforts in the health sector (Novignon, Olakojo, & Nonvignon, 2012). Substantial financial assistance and grants have been provided by several

international organisations to support the domestic governments' inadequate budgetary allocation to the health sector (Frag, Nandakumar, Wallack, Gaumer, & Hodgkin, 2009). Novignon et al. (2012) indicate that the expenditure on public health in SSA is vastly financed by resources from grants and loans.

The emergence of Global Health Initiatives (GHIs) has transformed the landscape and architecture of health funding in resource-poor countries, particularly in Africa (Mwisongo & Nabyonga-Orem, 2016). GHIs have emerged as funding mechanisms out of the need to advocate, and mobilise funding to address some critical health problems facing the globe. GHIs fund, shape, implement and evaluate several global health programmes and policies. GHIs thus respond to high-impact infectious diseases in low and middle-income countries. Such international financing organisations work together to advance public health outputs, offer technical expertise, and also adopt innovative approaches to improve the continually evolving public health practice. The Global Fund to Fight AIDS, Tuberculosis and Malaria or simply the Global Fund is a form of GHI that is designed to accelerate the end of AIDS, Tuberculosis (TB) and malaria. It was established in 2002 after global political will to enhance coordinated efforts to combat the world's deadliest infectious diseases received tremendous global momentum leading to the creation of a fund to channel resources into public health initiatives (Duran & Silverman, 2013). This was also undertaken following substantial death tolls of the HIV/AIDS endemic which affected several people in the late 1990s, especially in Africa and the desire by the international community to fight other deadly infectious diseases. Former UN Secretary-General Kofi Annan in April 2001 called for the establishment of a global fund, what he termed a 'war chest' committed to tackling HIV/AIDS and other infectious diseases and the UN General Assembly showed commitment to creating the Global Fund which was subsequently endorsed formally by the Group of Eight (G-8) in Genoa later in June 2001 (Duran & Silverman, 2013). The mission of the Global

Fund is to invest the world's money to combat these three diseases; HIV/AIDS, TB and malaria.

The Global Fund operates in more than one hundred (100) countries and works through the Country Coordinating Mechanism (CCM), which oversees the implementation of programs in countries of operation. The Global Fund currently dominates as a relevant actor that mobilises and invests extra resources in ending the epidemics of AIDS, TB and Malaria. It further supports the attainment of Sustainable Development Goals (SDGs) established by the UN. In Ghana, prevention and control of diseases mainly AIDS, TB and malaria are supported by the Global Fund through the financing of treated insecticide mosquito nets distribution, provision of anti-TB treatment and support of people on antiretroviral therapy for AIDS. These diseases are global health concerns that constituted a significant part of the UN Millennium Development Goals (MDGs) and collectively form a crucial component of the UN SDGs. The address of these health concerns, therefore, helps in bridging the health gaps between developed and developing countries as well as promoting health quality in Ghana. Thus, this study seeks to analyse the contribution of the Global Fund to the health sector of Ghana.

1.2 Statement of Research Problem

The health challenges that infectious diseases pose in Ghana are enormous. HIV/AIDS, TB and malaria remain significant causes of disease burden in the country despite the considerable interventions put in place by the three main respective disease programs. According to the GHS (2017), malaria accounts for an estimated 39% of all Out-Patient Disease (OPD) cases in the country and remains a major cause of morbidity and mortality especially amongst pregnant women and children. For instance, total malaria deaths amongst

under-5 children are estimated at 46.7% of overall malaria mortality (GHS, 2017). Also, malaria in pregnancy recorded an increase of 16.7% as compared to the previous year with the Western and Ashanti regions recording high numbers (GHS, 2017). Malaria is predominant in the country with seven (7) out of ten (10) regions recording malaria burden above the national average of 363 per 1000 population (GHS, 2017). Similarly, tuberculosis is also a major leading killer amongst infectious diseases. The World Health Organization (WHO) estimates that 3 million people with TB go undetected yearly, and this contributes to ongoing transmissions in our communities (WHO, 2014). In 2014, the national prevalence of TB in Ghana was estimated at 282 (111-530) per 100,000 population of TB cases (WHO, 2015). TB Case detection rate in Ghana remains low at 33% below the African regional average of 47% and the WHO target of 70% (WHO, 2015). Inadequate access to TB services, poverty, and stigma, amongst others are the major causes of low TB Case detection, and these translate to many cases not diagnosed. This poses considerable threats to the country as one person with active TB has a potential of infecting 10 to 15 (or more) people per year if not detected and treated (Manjelievskaia, Erck, Piracha, & Schrager, 2016). In the same vein, HIV/AIDS presents threats to the country. An estimated 313,063 people composed mainly of adults live with the disease in Ghana (GAC, 2017). HIV/ AIDS in 2017 recorded mortality of 15,694 deaths in Ghana and has an estimated prevalence rate of 1.67% among adults (GAC, 2017). The HIV adult incidence rate in 2017 is estimated at 0.68%, and out of 19,101 new infections recorded in 2017, 82.1% were adults, and 17.9% were children (GAC, 2017). Ghana is currently a priority country among the thirty-five (35) countries accounting for 90% of new HIV infections in the world (WHO, 2016). The effect of these infectious diseases goes beyond congestion in various health facilities but also includes loss of productive hours, which results in low income or productivity.

Since 2002, the Global Fund has supported the Ministry of Health (MOH) to employ various strategies and health programmes particularly under the National Malaria Control Programme (NMCP), National Tuberculosis Control Programme (NTP) and National AIDS/STIs Control Programme (NACP) to control these diseases. These supported programmes and interventions include distribution of Long-Lasting Insecticides Treated Nets (LLINs), TB screening, provision of antiretroviral (ARV) drugs, amongst others in the country. These disease control programmes (NMCP, NTP and NACP) are the primary institutions that plan, coordinate, implement and monitor malaria, TB and HIV/AIDS respectively in the country. Ideally, these interventions supported by the Global Fund were expected to increase TB case detection, reduce the prevalence of malaria and HIV cases in the country. However, the burden of these diseases is relatively no way under control with HIV/AIDS and malaria ranking third and fourth respectively in the top ten (10) causes of mortality amongst admitted patients in 2015 (GHS, 2017). Coupled with challenges of inadequate TB screening, insufficient facilities, poverty and stigma, this has questioned the success of the Global Fund's interventions in the country and makes it necessary to conduct a research to better comprehend the activities and limitations of the activities of the Global Fund in Ghana.

The previous study on this topic has emphasised how Global Fund-supported HIV programmes integrate, whether vertically or horizontally with the national disease program (Atun, Pothapregada, Kwansah, Degbotse, & Lazarus, 2011). However, there are no adequate studies in the area by way of analysing the extent of contributions of the Global Fund in the control and management of these infectious diseases in Ghana and the challenges encountered in supported interventions. This research will, therefore, examine the contribution of the Global Fund and the extent of the Global Fund's contribution to Ghana.

1.3 Research Questions

The research seeks answers to the following questions:

1. What are the contributions and health care interventions provided by the Global Fund in Ghana?
2. Who are the beneficiaries of the contributions and health care interventions of the Global Fund in Ghana?
3. What are the challenges that confront the activities of the Global Fund in Ghana?

1.4 Research Objectives

The research seeks to achieve the following objectives.

1. Examine the contributions and health care interventions the Global Fund provides in Ghana
2. Establish the beneficiaries of the Global Fund's contributions and health care interventions in Ghana.
3. Examine the challenges encountered by the Global Fund in Ghana's health sector.

1.5 Scope of the Study

The study will focus on the Global Fund interventions in the health sector of Ghana between the periods of 2002 to date. Key interest will be on health-related Sustainable Development Goals (SDGs).

1.6 Rationale for the Study

The significance of the study emanates from the fact that much attention has been given to health issues in Ghana by government and various international organisations. The study contributes to existing knowledge of the roles of international financing organisations, particularly the Global Fund, in promoting health care in Ghana. The findings of the research will benefit the government and other international organisations as it will serve as a useful reference or as a reminder of the challenges faced by the Global Fund in their activities to combat HIV/AIDS, malaria and tuberculosis in Ghana.

1.7 Theoretical Framework

The study employs the theory of Pluralism to explain the increasing role of international organisations or non-state actors in developing countries like Ghana. Pluralism basically views that politics and decision making resides mainly in the framework of government, but that many non-governmental groups utilise their resources to exert influence. Pluralism allows for free group competition in exerting influence upon the state's decisions. As a philosophy, it is the recognition and acceptance of diversity within a political entity, which allows distinct beliefs, opinions, interests and attitudes to coexist in harmony (Lipset, 1995). According to Ninsin and Drah (1993), pluralism involves tolerance of diverse opinions and political compromise, which are integral in a democracy.

Pluralism emerged post World War Two when there was a growing increase in international institutions. Robert Dahl, Joseph Nye and Robert Keohane are major proponents of the theory of pluralism. Pluralism forms a constitutive feature of democracy and stresses civil rights which can be manifested in the freedom of association and expression of opinion. Contrast to the position of the realists that the state is a closed, impermeable and sovereign political

entity; pluralists argue that the emergence of transnationalism, globalisation and interconnectivity of states have disintegrated these features of the state (Smith, Booth, & Zalewski, 1996). Pluralists also posit that several non-state actors like the United Nations (UN), International Monetary Fund (IMF), World Bank, Non-Governmental Organizations (NGOs) and Multinational Corporations (MNCs) play critical roles in the international system and their influence cannot be disregarded. In their independent nature, these international organisations and transnational corporations perform certain roles like the states by influencing international settings through agenda setting on the international plan (Viotti & Kauppi, 1993). Pluralists also opine that decision-makers and bureaucrats of international organisations have the potential to influence the international political arena by setting an agenda for the international community (Viotti & Kauppi, 1993). Pluralists contend that the financial capacity of these non-state actors can empower them to influence global issues. They further argue that the annual financial status of some multinational corporations (MNCs) exceed the Gross Domestic Product (GDP) of certain states in developing countries. In 2017 for example, the revenue generated by Coca-Cola Company was US\$ 35.41 billion (Conway, 2019; Macrotrends, 2019) as compared to the Gross Domestic Product (GDP) of Togo in that same year which totalled US\$ 4.81 billion (Trading Economics, 2019).

According to Asare (2018), MNCs are very instrumental in the creation of employment and the provision of social and infrastructural services in their countries of operation. Most serve as a source of external capital for many countries through their tax contributions. These international organisations are capable of influencing global issues as they have the capacity to organise individual and group memberships on political, economic and related social problems from both national and global levels. Due to the significant roles that MNCs play in

the economies of the host countries, Pauly and Reich (1997) mention that MNCs have been instrumental in shaping unique national institutions, policies and programmes.

Pluralism has the following primary tenets:

- States and non-states are major international actors
- The state can be divided into different components, some of which may function transnationally
- Foreign policy decision making and other processes involve conflict, coalition and compromise due to several actors with divergent interests
- Socio-economic or welfare issues have a higher priority than military security issues (Viotti & Kauppi, 1993).

The Global Fund suitably falls within the above tenets and represent subjects of international relations. The Global Fund is a partnership designed to speed up the end of AIDS, Malaria and Tuberculosis as epidemics. This partnership is between governments, private sector, civil society and individuals affected by the diseases. The Global Fund operates in several countries and is currently the world's largest financier of AIDS, TB and malaria prevention, treatment and care programs (Katz, Komatsu, Low-Beer, & Atun, 2011). As a financing mechanism, its programmes are implemented by in-country partners such as the ministry of health and the implementation is overseen by the Country Coordinating Mechanism (CCM) in a country (Kapilashrami & McPake, 2012). With a vast financial capacity, the Global Fund operates in several countries continentally and has a comparative advantage to influence global agenda to bring socio-economic benefits to the poor and vulnerable society. This enables it to assume authority in matters that were conventionally within the purview of the state. For example, in Brazil, funds from Global Fund offered the National Tuberculosis Programme (NTP) operational freedom and capability to recruit new staff and to engage the

services of consultants in the implementation of policies (Gómez & Atun, 2012). It is worth noting that the Global Fund cooperates with governments to achieve objectives which are of societal benefits. Due to the financial capacity and involvement in global affairs, the Global Fund has attained a measure of autonomous authenticity from states. Today, the Global Fund is financing various programmes and services that states are deficient in providing. A typical example is the provision of free antiretroviral therapy and HIV treatment in Nigeria (Chima & Homedes, 2015).

The theory of pluralism has been critiqued by several scholars. Realists are the leading critics of the theory of pluralism. Kenneth Waltz, Hans Morgenthau and E.H Carr are some major realists. To realists, states are the most significant actors in international relations despite the recognition of other several actors in the international arena (Asare, 2018). Traditional realists still argue that the state continues to wield the ultimate power and authority as the primary actor in the global political arena (Gilpin, 1984). In other words, non-state actors do not play significant roles in the international platform. In the view of hardcore realists, non-state actors only exist at the behest of state actors. This implies that likewise, other non-state actors, the Global Fund's medium of operations and actions is fundamentally dependent on interstate relations. Accordingly, critics of pluralism argue that it is a mere illusion to equate the status of states to non-state organisations or associations. They add that transnationalism, globalisation or interdependence have done nothing to alter the rudimentary anarchic structure of the international system (Smith et al., 1996).

Notwithstanding these critiques, pluralism remains a relevant theory in international relations. The theory shows the important roles played by international agencies in ensuring the protection and advancement of the health welfare of individuals, thus explaining the role of the Global Fund in the health sector in Ghana.

1.8 Literature Review

This section reviews the literature on the various contributions and challenges of the Global Fund. The review of works will be based on the following thematic areas: Human resource; civil sector participation; infrastructure, procurement, medical services and technology as well as challenges or criticisms associated with the Global Fund's activities. These articles are relevant to the research as they identify various measures and interventions undertaken or supported by the Global Fund in developing countries. The articles also identify some challenges and problems associated with Global Fund activities in various countries.

Human Resource

Shortages in health workers, inequities in the geographical distribution of health workers and poor job performance are significant challenges inhibiting the delivery of quality health service in developing countries (Vujicic, Weber, Nikolic, Atun, & Kumar, 2012). In view of this, multilateral agencies like the Global Fund have increasingly acknowledged the imperative to channel resources into human resources for health (HRH) thereby including HRH related activities in proposals and encouraging the usage of approved grants for the allocated purposes (Vujicic et al., 2012). The inclusion of health worker capacity building as components of Global Fund grants helps in addressing significant health worker challenges like inadequate supply, high levels of health worker turnover and poor conditions of health services (Patel, Cummings, & Roberts, 2015).

In investments in HRH related activities, the Global Fund contributes relatively more considerable amounts in absolute terms as compared to other global health initiatives averaging an annual expenditure of US\$2.7 for this purpose (Vujicic et al., 2012). The Global Fund allocates a maximum of 72% of grants to HRH-related projects in any distinct project (Vujicic et al., 2012). In terms of activities of HRH, the Global Fund sponsors recruitment,

training, health workers deployment, salaries and productivity incentives to health staffs (Vujicic et al., 2012). In Timor-Leste, Martins, Zwi, and Kelly (2012) mentioned that the Global Fund contributed to malaria control through the employment of malaria unit officers, training of health personnel and entomology experts. Martins et al. (2012) add that more than 268 health staffs were educated on malaria treatment guidelines. They add that about 686 health staff were also coached on Insecticide-Treated Mosquito Nets (ITNs) and research with a further 472 health personnel trained on surveillance. This enhanced health staff understanding in both clinical and programmatic malaria management (Martins et al., 2012). In Brazil, Gómez and Atun (2012) highlighted that investments from the Global Fund provided operational freedom and capacity for the National Tuberculosis Programme (NTP) to appoint new staff as well as hiring consultants to work on the implementation of policies using the Global Fund money. This assisted in the scale-up of tuberculosis treatment in the country (Gómez & Atun, 2012).

According to Brugha et al. (2010), the grant supports from the Global Fund in Malawi promoted investment of a greater amount of its resources on basic training. This has resulted in an estimated 165% increment in pre-service training and a 79% rise in post-basic training. Atun et al. (2011) allude to the capacity building activities of Global Fund programmes indicating that the Global Fund provided funding for the training of health personnel, including international training for critical staff in supported HIV programs in Ghana. In the same vein, Plamondon, Hanson, Labonté, and Abonyi (2008) indicated that the Global Fund-supported TB programmes promoted the capacity of health workers in Nicaragua through the training of a sum of 2,809 'brigadistas' or volunteer health workers in the community Directly Observed Treatment, Short Course (DOTS) strategy. This capacity building mechanism of 'brigadistas' was lauded as a remarkable achievement of the Global Fund in Nicaragua.

In terms of health worker remuneration, the Global Fund provides about 64% of funding for base salaries and allowances for health employees (Vujicic et al., 2012). This has increased staffing and improved health sector retention, particularly in rural communities (Vujicic et al., 2012). Together with support from PEPFAR and the Clinton Foundation, Vujicic et al. (2012) further identified that the Global Fund has increased recruitment and boosted retention of public health workers in particular geographical areas. Brugha et al. (2010) expressed that the decision of the Global Fund to agree to re-allocate Malawi's Round 1 grant coupled with other donor supports assisted the country to implement its Emergency Human Resource Programme.

Civil Sector Participation

Biesma et al. (2009) note that the Country Coordinating Mechanisms (CCMs) of Global Fund-supported programmes have promoted significant improvements in stakeholder involvement in the health sector. NGOs, faith-based organisations and other civil society organisations (CSOs) have largely been engaged in the planning process with various governments on Global Fund investments. In some cases, such non-state actors become the primary recipients of substantial Global Fund investments, thereby empowering them to become implementers of such Global Fund-supported health programmes (Biesma et al., 2009). Lee, Lal, Komatsu, Zumla, and Atun (2012) highlight that a substantial proportion of Global Fund programmes were managed and implemented by CSOs, the private sector and international agencies to foster multisectoral cooperation. In Zambia, Malawi and Benin for instance, the Global Fund boosted public-private cooperation following the creation of umbrella agencies by NGOs to channel funds from principal recipients to sub-recipients (Biesma et al., 2009).

Biesma et al. (2009) further indicated that the Global Fund authorised that 30% of all disbursements be allocated to civil societies. Similarly, Chima and Homedes (2015) identified that the first round of HIV grants from the Global Fund in Nigeria was explicitly designed to facilitate the effective participation of CSOs in the national response to the control of HIV/AIDS. Out of US\$558 million disbursed for grants that included tuberculosis service delivery in prisons, an estimated 54% went into nongovernmental recipients ranging from CSOs, development partners and the private sector (Lee et al., 2012). This sought to assist in TB control in penitentiary settings through various service deliveries (Lee et al., 2012). In describing initiatives undertaken by the Global Fund to support human rights-barrier challenges to AIDS, TB and malaria, Jürgens, Csete, Lim, Timberlake, and Smith (2017) mentioned that an amount of US\$15 million was allocated to offer technical assistance to NGOs to enhance their involvement in Global Fund activities in their countries. This was also to support their longer-term capacity to develop and provide leadership in human rights programs (Jürgens et al., 2017).

Biesma et al. (2009) highlight that private health facilities in Malawi have received free antiretroviral drugs as a form of civil society participation from Global Fund programmes. In Nicaragua, Plamondon et al. (2008) found that support from the Global Fund was used to establish TB Clubs to promote community awareness and enhancement of TB Control. The Global Fund used the regional health authority as a medium to disburse funds to build TB Clubs and further provided incentives like food to Persons Affected by TB (PATB) to encourage regular attendance of meetings. TB Clubs contributed to the effective implementation of TB programmes by establishing networks for enhancing community education, promoting community-based recruitment of testing symptoms and assisting in the decrease of social stigmatisation and discrimination against PATB in Nicaragua (Plamondon et al., 2008). Similarly, the Global Fund has urged the advent of new civic movements,

participation and the formation of new municipal participatory institutions that monitor the disbursement of funds for Global Fund grants in Brazil (Gómez & Atun, 2012). The Global Fund has promoted a greater civic commitment to civil mobilisation, empowerment and accountability (Gómez & Atun, 2012). Drawing from this, Chima and Homedes (2015) also indicate that the Global Fund through the CSOs help promotes accountability through the creation of systems for checks and balances via interventions in quality assurance by independent confirmation of data. An example is how the Network of People Living with HIV/AIDS in Nigeria (NEPWAN) uncovered gaps in access to HIV services at public facilities (Chima & Homedes, 2015).

Infrastructure, Procurement, Medical Services and Technology

Chima and Homedes (2015) indicate that HIV funding with Global Fund inclusive has been invested in infrastructural projects. They note that these funds have been used to refurbish buildings, establish new ones, procure vehicles and develop Information and Communication Technology (ICT) systems (Chima & Homedes, 2015). In Timor-Leste, Global Fund grants assisted in the establishment of a malaria unit, the establishment of an Integrated Disease Surveillance System (IDSS) as well as the setting up of vector control management (Martins et al., 2012). Global Fund investments have supported facility refurbishments and the procurement of equipment such as vehicles and microscopes for field monitoring and supervision in Ghana (Atun et al., 2011). Johnson et al., (2018) point out that one of the key areas of focus of Global Fund health systems support includes the data systems. Investments from the Global Fund assisted in the establishment and maintenance of the national Health Management Information System in Somalia to facilitate data collection from hospitals in three zones (Patel et al., 2015). Mozambique has also benefited from Global Fund grants to design and implement an electronic record system in three main hospitals (Patel et al., 2015). Similarly, Patel et al. (2015) revealed that in Liberia and Sierra Leone, the Global Fund was

very instrumental in improving the health information systems of those countries. He adds that this has facilitated the data and records management system of both countries.

Johnson et al., (2018) mentioned that global partnerships like Global Fund had supported funding and technical assistance for HIV service delivery, introduction and availability of health products and advocacy to mitigate the HIV epidemic. Patel et al. (2015) revealed that the Global Fund is the sole financier of anti-retroviral therapy in the Central African Republic and the primary source of finance of the National TB programme in Somalia. Chima and Homedes (2015) opine that together with other donors, the Global has assisted in the free provision of HIV treatment at service points in Nigeria. Gotsadze et al., (2019) also revealed that TB products in ten countries (Armenia, Belarus, Bulgaria, Georgia, Kosovo, Kyrgyzstan, Moldova, Turkmenistan, Ukraine and Uzbekistan) depended heavily on Global Fund for drugs, especially for second-line drugs and diagnostics. Atun et al. (2011) also identified that Global Fund support for HIV programs has resulted in the rapid increase of HIV prevention and treatment effort with an exponential increment in persons accessing HIV testing and counselling services. This consequently increased beneficiaries from 6700 in 2003 to 30,000 in 2005 and 160,000 in 2007 (Atun et al., 2011).

According to Lee et al. (2012), almost half (36 of 73; 49%) of the 73 grants that provided TB services in penitentiaries was earmarked to provide diagnosis and treatment of tuberculosis cases. Out of this, screening and monitoring services constituted about 27% of the supported grants. These grants allocation are targeted at strengthening the capacity of tuberculosis service delivery and providing an environmental setting that could facilitate better program administration and service delivery within prison settings (Lee et al., 2012).

In the fight against malaria in Timor-Leste, Global Fund grants assisted in the implementation of ITNs distribution. Investments from Global Fund enabled the distribution

of about 682,228 ITNs to pregnant women in Timor-Leste (Martins et al., 2012). Between the periods 2004 and 2006, pregnant women and in some instances, the entire population were beneficiaries of free ITNs (Martins et al., 2012). These malaria interventions yielded positive results leading to a reduction of malaria cases.

Challenges and Criticisms of the Global Fund's Activities

The salary and incentive structure of the Global Fund has been under criticism. Associated per diems of GHIs like the Global Fund have created a disincentive for capacity-building where health workers now use such training programmes as opportunities for augmenting salaries (Chima & Homedes, 2015).

Biesma et al. (2009) identified that a consequence of Global Fund-sponsored programmes was the migration of health workers from reproductive health and family planning through a re-allocation process in pursuit of 'Global Fund money'. Similar events occurred in Ethiopia where Global Fund-supported programs induced health personnel to leave the public sector for the private sector, NGOs and other bilateral agencies. In the same vein, donor-funded HIV programs have facilitated internal brain drain in Nigeria by luring health personnel from the public sector to NGOs or private sector organisations and projects funded by such health initiatives (Chima & Homedes, 2015). This has further exacerbated the misdistribution challenges of health workers.

Targeting remuneration payments at health personnel who focus on priority diseases interventions has a negative tendency of modifying the relative salary in the health sector (Vujicic et al., 2012). This leads to unintended labour market distortion. This further leads to migration of health personnel out of certain areas of health care with minimal support from donor agencies towards sectors that receive more support from donors like the Tuberculosis clinics (Vujicic et al., 2012).

Plamondon et al. (2008) criticise Global Fund projects that offered incentives like the provision of lunch for members in the TB Club in Nicaragua. In their view, these actions are counterproductive and establish an unsustainable precedent of incentives for participation. The training of voluntary health workers and the establishment of TB Clubs in Nicaragua in conjunction with incentives posed potential threats to building a sustainable program capacity (Plamondon et al., 2008). The use of external finance to remunerate health workers in the absence of a clear road map and suitable strategy also raises concerns of sustainability of programmes (Vujicic et al., 2012).

1.9 Research Methodology and Source of Data

The study was conducted within the framework of a qualitative research approach to allow the researcher to gather information on the contribution of the Global Fund to the health sector of Ghana. This helped the researcher make valid and meaningful conclusions without recourse to statistical tools. According to Creswell and Creswell (2017), the researcher often makes knowledge claims in the qualitative approach based fundamentally on the several meanings of the experiences of people, social and historical constructions. He further adds that this approach utilises phenomenology, ethnographies or case studies as a mode of inquiry. In light of this, the researcher conducted semi-structured interviews. Semi-structured interviews enable reciprocity between the interviewer and the participant (Kallio, Pietilä, Johnson, & Kangasniemi, 2016). They are neither restrictive like close-ended questions, nor is it so open to derailment like unstructured interviews. This gave the respondents the chance to respond in their own words and decide on what information to give out other than through coercion to respond in specific directions. According to Rabionet (2011), semi-structured interviews are flexible and this allowed the researcher to probe further answers to get detailed information based on responses from respondents. The qualitative research method was adopted for this study because the nature of the research involved techniques like

interpretations, views and inferences other than mechanical numbers. Qualitative research design was also employed to acquire expert opinions from respondents who have a continuous engagement or are aware of Global Fund programmes.

Data for the study was obtained from two main sources: primary and secondary sources. The primary data was collected from the following officials: Program officer for Oversight and Communication of the Country Coordinating Mechanism of the Global Fund to fight AIDS, TB and Malaria (Ghana-CCM), the Monitoring and Evaluation Manager at the Planned Parenthood Association of Ghana (PPAG) as well as officials of the Ghana Health Service (GHS) in particular; Programme Manager of the National AIDS/STI Control Programme (NACP), Deputy Programme Manager of the National Malaria Control Programme (NMCP) and the Monitoring and Evaluation Officer of the National Tuberculosis Control Programme (NTP). These organisations were selected since they have been major recipients of Global Fund grants. The study used an audio recording as the main medium to gather the primary data. The study also relied on secondary data from reports, journal articles, books, bulletins, relevant internet sources and other existing literature of scholars in the area of the Global Fund.

In this study, a sample size of five respondents was utilized. Five personnel were interviewed, and these respondents were carefully selected for the research from the CCM, PPAG, NMCP, NACP and NTP. Purposive sampling was employed as a sampling technique. This sampling technique was relevant for the study based on the criterion that the selected officials have continuous engagement in or are aware of the Global Fund's activities and programmes in the country. This sampling technique assisted the researcher in having access to in-depth views and relevant information on the research subject area. Thus, the purposive sampling technique allowed the researcher to identify the appropriate respondents to solicit vital

information in the subject area concerning the activities of the Global Fund particularly contributions and challenges in the health sector of Ghana.

The data collected from the sources were analysed qualitatively to establish their credibility and reliability. The primary data was first transcribed. The researcher made relevant deductions from the data to make a meaningful judgment. The researcher employed a descriptive form to summarise the research in the form of quotes, texts and extracts for easy description and analysis. The descriptive research tool was used with the intent to explain, describe and validate the behaviour of the population sampled, that is, in the identification of what the Global Fund does precisely in the health sector.

1.10 Ethical Consideration

Ethical consideration is an essential element of research that needs to be adhered to. Creswell and Creswell (2017) therefore, propose that ethical issues should be anticipated before and during the study to enable the researcher to determine them in each phase of the study. Ethical consideration was not compromised since the study focused on health and people. The researcher first sought an introductory letter from the Legon Center for International Affairs and Diplomacy (LECIAD) to get permission for data collection. The research obtained the consent and approval of all officials interviewed before recording interview sessions. The researcher gave out interview guidelines to the respondents ahead of a scheduled interview to prevent any form of misconceptions about the intents of the research. Views, comments and information collected from the respondents were not against their voluntary cooperation.

1.11 Limitations of the Study

The study encountered a few challenges during the data and information gathering process. The researcher's major limitation was getting access to some of the various organisations who have been recipients of the Global Fund grants for interviews particularly Ghana AIDS Commission (GAC) and West Africa Program to Combat AIDS and STI (WAPCAS). This is because requests for interviews from these institutions have not been honoured. In addition, getting access to reports and relevant documents from various disease control programmes in particular NTP and PPAG proved difficult and made it difficult to verify the information gathered from the Global Fund and online sources. The researcher spent about five weeks transporting to these institutions for reports for them to say they cannot be found. Another challenge was the time allocated to conduct the study.

Notwithstanding, proper research can be conducted within a limited time frame and resources when the researcher can adapt to conditions to attain set objectives of the study. Hence the researcher decided to use website information, interviews with top officials of the CCM-Ghana, NMCP, NACP, PPAG and NTP. Despite all the limitations and challenges encountered, the researcher made judicious use of collected information to strengthen the reliability and validity of the research.

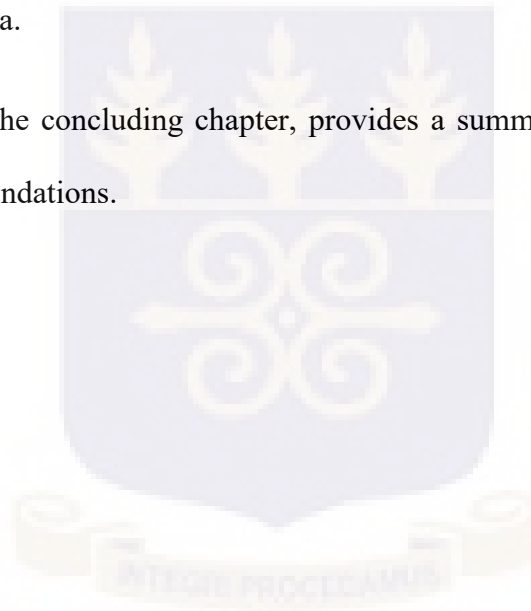
1.12 Organisation of the Study

The study is organised into four chapters. Chapter One constitutes the introduction and comprises the background of the study, statement of the problem, research questions, research objectives including the scope and rationale. The chapter also presents the theoretical framework, literature review, research methodology and sources of data. The chapter also included the limitation of the study and the organisation of the study.

Chapter Two comprises an overview of the Global Fund and Ghana's health sector. The chapter begins with the definition of the Global Fund and adds the history, functions, principles and structure of the Global Fund. It further delves into Ghana's health sector and some major health reforms and policies that the health sector has undergone over the years. It also presents certain health care gaps existing in the country and highlights some achievements of the Global Fund in developing countries.

Chapter Three concentrates on the Global Fund contributions and health care interventions, Global Fund interactions with state institutions as well as challenges associated with Global Fund operations in Ghana.

Chapter Four which is the concluding chapter, provides a summary of findings, conclusion and offer some recommendations.



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CHAPTER TWO

OVERVIEW OF THE GLOBAL FUND AND GHANA'S HEALTH SECTOR

2.0 Introduction

This chapter presents an overview of the Global Fund and the health sector of Ghana. The overview of the Global Fund shows what the organisation is, its history, what its functions are, its guiding principles, its structure, how it operates, how it mobilises funds and its comparative advantage. The overview of the health sector of Ghana will mention major health reforms and policies, disease burden and other health challenges in Ghana

2.1 The Global Fund to Fight Aids, Tuberculosis and Malaria

2.1.1 What is it?

The Global Fund is a partnership organisation designed to accelerate the end of AIDS, Tuberculosis and Malaria as epidemics (Schocken, 2004). The Global Fund is a public-private partnership that aims at leveraging and providing funding for the three focal diseases which are HIV AIDS, Tuberculosis and Malaria (Hanefeld, 2014). It can also be defined as:

“an independent nonprofit foundation that was established in 2002 to attract and disburse funds for the prevention, treatment, and care of AIDS, tuberculosis (TB), and malaria in low- and low-to-middle-income countries” (Kerr, Kaplan, Suwannawong, & Wood, 2005, p. 174)

2.1.2 History

At the end of the 20th century, global political will to promote coordinated efforts to combat deadly infectious diseases gained momentum following the prominence of HIV endemic in the late 1990s. Discussions around the establishment of a Global Fund were initially held in

Okinawa, Japan at the Group of Eight (G-8) summit in July 2000. The political leadership of the G-8 following the summit increased commitment towards the attainment of three objectives by the end of 2010: “reduce the number of HIV/AIDS infected young people by 25%; to reduce TB deaths and prevalence...by 50%; and to reduce the burden of disease associated with malaria by 50%” (Duran & Silverman, 2013, p. 5). This led to a proposal for the conception of an innovative partnership with other governments, the private sector, multilateral organisations, civil society and the academic community (Duran & Silverman, 2013). Heads of State and Governments of the Organization of African Unity which is now the African Union (AU) at a Special Summit held in Abuja on April 2001 that was primarily focused on HIV/AIDS also voiced their support (Mburu, Folayan, & Akanni, 2014). The former United Nations Secretary-General, Kofi Annan, mooted the idea for the creation of a Global Fund, what he referred to as a ‘war chest’ dedicated to the battle against HIV/AIDS and other infectious diseases (Feachem & Sabot, 2006). He further announced a donation of his US\$100,000 Philadelphia Liberty Medal award to it and his proposal attracted considerable attention (Schuster, 2001). These advancements spurred a Special Session of the UN General Assembly on HIV/AIDS in June 2001 where member states adopted a Declaration of Commitment with an inclusive determination to endorse the creation of a global HIV/AIDS and health fund to finance an exigent and widened response to the disease (WHO, 2002). In July 2001, the G-8 endorsed the Fund at a summit in Genoa, Italy and committed \$1.3billion to the Fund (Bayne, 2002). The G-8 emphasised in a communiqué that the new Fund would introduce a new approach to global health aid with a focus on “proven scientific and medical effectiveness, rapid transfer of resources, low transaction costs and light governance with a strong focus on outcomes” (Radelet, 2004, p. 4). A Transitional Working Group (TWG) was subsequently formed to delineate the functions, principles, structure and working modalities of the new organisation. The Global Fund came into

existence in January 2002 and currently maintains its secretariat in Geneva, Switzerland (Aziz, 2009).

2.1.3 Purposes/ Functions of the Global Fund

The Global Fund was formed as a non-profit, independent financial instrument rather than an implementing agency. Article 2 of The Global Fund's Bylaws outlines that:

“the purpose of the Global Fund is to attract, leverage and invest additional resources to end the epidemics of HIV/AIDS, tuberculosis and malaria to support attainment of the Sustainable Development Goals established by the United Nations” (The Global Fund, 2017, p. 1).

This will make a sustainable and substantial contribution to reducing infections, illness and mortalities from the three diseases, thereby mitigating their effects on countries in need (Bennett & Fairbank, 2003). In essence, the Global Fund focuses its resources on expanding coverage of critical and cost-effective interventions against the three infectious diseases (Bennett & Fairbank, 2003).

2.1.4 Principles

The work of the Global Fund is grounded on certain principles aimed towards combatting the three conditions. The following are the underlying principles guiding the activities of the Global Fund

1. The Fund is a financing instrument, not an implementing agency;
2. The Fund is intended to make available and leverage additional financial resources financing for AIDS, TB and malaria;
3. The Fund will support programs that reflect national ownership with broad and cross-sectoral participation;
4. The Fund provides prevention, treatment and care funding, across different regions, diseases, and interventions by operating in a balanced manner;
5. The Fund is part of a broader network of actors;

6. Transparency and accountability are essential features of the Global Fund;
7. The Fund is performance-based;
8. The Fund has interests in developing civil society, private sector and government partnerships, and in supporting communities and persons living with the diseases;
9. The Fund seeks to be simple, innovative, and rapid; and
10. An independent review process will be used to evaluate proposals (Schocken, 2004).

2.1.5 Structure of the Global Fund

The Global Fund has created a distinctive architecture that proposes, selects, manages and implements programs at the national and headquarters levels.

2.1.5.1 Headquarters

Board

The Global Fund has a board which comprises twenty (20) voting members who are representatives of non-governmental organisations, the private sector, communities affected by HIV, TB and malaria with other eight (8) non-voting members that include the World Bank, UNAIDS and other representatives of partner organisations. The board has a responsibility for the governance of the institution, development of strategies, assessment of organisational performance, management of risk, engagement with partners, mobilisation of resource, advocacy and approval of all funding decisions (Schocken, 2004). Currently, the board is chaired by Donald Kaberuka.

Secretariat

The Secretariat consists of approximately 700 staff representing over 100 nationalities with diverse professional backgrounds who are based at the various offices at the headquarters in Geneva. The Secretariat is responsible for the day-to-day operations or administration of the

fund (Triponel, 2009). With diverse organised teams, the Secretariat mainly focuses on the core business of managing grants and working with partners for the collective objective of achieving set targets and impacts. The Secretariat also manages finance, implements and coordinates strategies and policies, coordinates the application process, engages in donor relationships, as well as integrating gender, human rights and key populations issues into funding cycles and also supports the board (Schocken, 2004).

Office of the Inspector General

This office protects the assets, investments, credibility and sustainability of the Global Fund by ensuring that appropriate and prudent initiatives are taken to facilitate the end of the three diseases (McGill, 2014). With a range of work including the systems, processes, operations, roles and activities of the Global Fund, the Office investigates and reports in the interest of the Global Fund towards the improvement of transparency and increasing accountability. The Office has full access to books and records of the Global Fund and those relating to grants funded irrespective of the persons or institutions maintaining them whether grant recipients or the Local Fund Agents. This office reports directly to the Global Fund Board.

Technical Review Panel (TRP)

The Technical Review Panel represents an independent body of experts who serve on a maximum tenure of four years after which they become former members who may be required to serve again in exceptional circumstances. The TRP is responsible for the evaluation of requests for funding and makes recommendations based on technical merit and strategic focus (Radelet & Siddiqi, 2007). Experts in HIV, tuberculosis, malaria, human rights and gender, health systems and sustainable financing serve in their capacities and play an advisory and pivotal role in the development and implementation of strategies of the Global Fund. The Panel recommends to the Board about proposals that need approval,

revision or rejection. The Panel is structured to guarantee the quality, ensure transparency and consistency of the proposal review process (Schocken, 2004).

Technical Evaluation Reference Group

This refers to an independent evaluation body which works on behalf of the Global Fund Board and its committees to provide oversight on the Fund's evaluation efforts (The Global Fund, 2019b). It ensures independent evaluation of the Global Fund business model, investments and impacts. The group also offers advisory services on matters relating to monitoring and evaluation.

2.1.5.2 In-Country Operations

The Global Fund has no presence in recipient countries since it is a financing mechanism. Despite the absence of Global Fund Secretariat in recipient countries, the Global Fund has established a monitoring and grant administration system in recipient countries.

Country Coordinating Mechanisms (CCMs)

The CCMs are multi-partner national committees that submit funding proposals to the Global Fund on behalf of the country and oversee grant implementation (Hanefeld, 2008). CCMs are comprised of representatives from the government, private sector representatives, multilateral and bilateral agencies, technical partners, civil society, academic institutions and people living with the diseases. This country-level management coordinates the development for the national request proposals for funding, propose Principal Recipient(s), superintend the implementation of approved grants, approve reprogramming requests and maintains coordination and consistency between Global Fund grants and other domestic health and development programs (The Global Fund, 2018).

Principal Recipients (PRs)

The Principal Recipients are the designated in-country institutions nominated by the CCM to receive funding allocations from the Global Fund Secretariat, implement programs and distribute funds to sub-recipients in line with the grant agreement (Brugha et al., 2004). PRs are legally liable for the funds and implementation. PRs are also tasked with the submission of regular financial reports and results outcome to the Global Fund Secretariat and for the request for additional disbursement (Schocken, 2004). The CCM determines the PR and includes in the proposal that is submitted to the Global Fund. The PR is mostly an office within the Ministry of Health or the Ministry of Finance in a country. Civil societies and multilateral organisations like the UNDP, though uncommon, may serve this role (Shretta & Thumm, 2007).

Local Fund Agents (LFAs)

In the absence of Global Fund offices in countries, the Global Fund depends on independent organisations or contracted agents in countries which it supports. The LFA assesses the financial, managerial and programmatic capacities of selected PR (Triponel, 2009). The LFA assesses the capacity of the Principal Recipient with regards to tracking records, effectiveness and efficiency of internal controls and systems. It is also responsible for the review of the proposed grant budget and work plans. The LFA, which is typically an auditing firm, also reviews progress updates and disbursement requests as well as verifying quality of results and data through site visits. The LFA ensures monitoring and evaluation of grants by providing oversight responsibilities and reporting on grant performance (Triponel, 2009).

2.1.5.3 Partners of the Global Fund

Civil Society Organizations (CSOs)

CSOs remain instrumental in the development and implementation of policies at every level of the Global Fund (Ooms, Van Damme, Baker, Zeitz, & Schrecker, 2008). With a composition of three constituencies at the Global Fund Board level, CSOs are instrumental in the decision-making process and also promote country dialogue concerning response to the endemics through their membership in the CCM (Ooms et al., 2008). CSOs at the national level also advocate for the augmentation of government health expenditure and resource mobilisation. CSOs act as watchdogs to ensure that programs designed and implemented are tailored to suit the needs and interests of key populations. CSOs include NGOs, advocacy groups, faith-based organisations and network of people living with the disease.

Friends of the Global Fund

These are independent organisations that assist in the pool of both financial and political support to enhance better comprehension of the missions and objectives of the Global Fund. Currently, there are existing four regional Friends organisations. These are Friends of the Global Fund Europe, Friends of the Global Fund Japan, Friends of the Global Fight and Pacific friends.

Government Donors

These are countries that offer financial contribution and support to the Global Fund to help fight against the three diseases. Countries or governments provide the majority of the Global Fund's financial aid, and these donor countries constitute eight representations on the twenty Board constituencies with voting rights.

Private and Non-Government Partners

These include corporations, foundations, trusts, charities, philanthropists and NGOs who share a distinct partnership with the Global Fund. They help in the determination of programs at the national level and also contribute to decision making at the global level on the Board. They make significant contributions through the share of knowledge skills and technology, mobilisation of resource, finding alternative funding mechanisms to ensure sustainable financing as well as creating awareness and advocacy.

Technical and Developmental Partners

These include technical agencies and development organisations who contribute in varied forms of technical expertise, support in the mobilization of resources as well as advancing advocacy. These agencies and partners also render support for country coordination of programs and activities, offer help with stakeholder engagements and ensure monitoring and evaluation of Global Fund sponsored or supported programs.

2.1.6 Modus Operandi

The creation of a CCM in countries is a fundamental requirement of the Global Fund in the grant application process (Brugha et al., 2004). The CCM which represents the country ensures the submission of grants proposals and delineate how the grant allocation will be used. Proposals typically take the form of five-year plans and the CCM names a Principal Recipient (PR) who implements programs within the individual countries (Brugha et al., 2004). The Principal Recipients may include government agencies, nonprofit development organisations and multilateral organisations. The Technical Review Panel (TRP) of the Global Fund which is made up of various appointed experts reviews the submitted funding request and assesses the quality of the application (Brugha et al., 2004). The TRP may request changes or make recommendations for improvement. Upon approval of the

applications, the Global Fund allocates donor funds to eligible countries based on achievement towards agreed indicators and actual expenses. The actual awards of the grant are made available to the PR through specified rounds of funding (Schocken, 2004). The PR receives grants in two phases; initial receipts of grants for two years and subsequent renewal for up to three additional years. Government agencies form a great proportion of the PR for all grants and especially in sub-Saharan Africa. Where a grant is spread across two or more recipients, a dual or multiple-track model is employed. Due to the absence of offices in countries of support, Local Fund Agents (LFAs) are employed to monitor grant implementation, review the progress of the grant and the appropriate use of funds (Teerawattananon, McQueston, Glassman, Yothasamut, & Myint, 2013). As part of fiduciary arrangements with the Global Fund, the LFA may also review proposed grant budget and work plans before the signing of a new grant agreement. The LFA is usually one in the country and is normally a blue-chip auditing or consultancy firm (Schocken, 2004). Reports from grant recipients and the LFAs are further used by particular Global Fund portfolio managers to assess progress and achievement updates. Countries that are found to be underperforming and missing set targets can have disbursement of additional funding withheld, cancelled or suspended (Low-Beer et al., 2007).

2.1.7 How the Global Fund Mobilize Resource

Finance is a critical component in efforts to bring to end HIV/AIDS, tuberculosis and malaria epidemics. The Global Fund raises and invests capital or funding in three-year cycles. This is known as Replenishment, where the Global Fund pools resources from governments, private sectors, private foundations and other financing initiatives (Triponel, 2009). Donors make new pledges after every new replenishment cycle. Majority of funding of the Global Fund to support interventions comes from donor governments. Donor governments are the primary source of funds and contribute about 95% of total financing, whilst contributions from the

private sector and nongovernment sector constitutes the remaining 5%. The United States remains the highest government contributor while the Bill and Melissa Gates Foundation remains the highest contributor from the private and nongovernment sector with both contributing a cumulative US\$14,497,884,044 and US\$2,029,351,238 respectively since the Global Fund's creation (The Global Fund, 2019a).

2.1.8 Global Fund and Comparative Advantage in Health Care Delivery

In offering health care and services, the Global Fund has certain comparative benefits which are based on the efficiencies in the operations of the entity as compared to the certain international organisations and some centralised, bureaucratic and largely inefficient national governments in health care provision. This discussion will revolve around the following areas; efficiency from specialism, connections to civil society, speed, governance system and performance-based structure.

First of all, the Global Fund with specific focal disease areas is viewed as possessing a relative advantage over certain governments. This is because the Global Fund has an established target of ending the three diseases (AIDS, tuberculosis and malaria) as epidemics and as such, all resources mobilised are streamlined towards the attainment of this goal. The Global Fund pools resources from several partners and this gives it a huge financial muscle than some governments who may have to spread resources across diverse health diseases and areas.

Connections and links to civil society is another advantage the Global Fund possesses. Civil society organisations present great opportunities to widen initiatives and interventions to far-reaching people (Shakow, 2006). In efforts to combat infectious diseases like AIDS, sustainable measures are instrumental and dependent on the active participation of citizens in the provision and relay of information to ensure that healthcare services or resources extend

profoundly into local populations or the marginalised sections of the populace (Shakow, 2006). One of the greatest assets of the Global Fund is its capacity to support various civil society groups directly across countries; some of which the governments are unable and find difficulty in working with (Shakow, 2006). The Zambian National AIDS Network (ZANAN) supported by the Global Fund presents a good model of the empowerment of civil societies to ensure service delivery across deep communities (Shakow, 2006). The Global Fund operations have led to the creation of organised support groups which have been efficient in advocacy and creating public awareness of the severity of the AIDS epidemic in the world (Shakow, 2006). The ties to civil societies present an advantage in health care service delivery as compared to certain international organisations and governments.

Also, the Global Fund has the advantage of speed in the disbursement of funds for programmes compared to most development agencies and partners. Unlike other development agencies and governments that could take quite a long time to undertake extensive project analysis and due diligence, the Global Fund Board requires relatively less time to disburse funds for interventions with a swift approval process (Shakow, 2006).

The governance system and structure of the Global Fund also gives it an apparent advantage. The Global Fund Board has a composition of donors, recipient governments, NGOs representatives from either developed and developing countries as well as communities or people affected by the three diseases. The membership of the board is far more democratic and inclusive compared to other international organisations which have governments as principal stockholders (Bezanson, 2005). The Secretariat and Board members are exposed to the diverse perspectives of parties seldom seen in other institutions. The national representatives on the Global Fund Board and their NGOs have equal voice irrespective of the level of development, and this serves as a source of pride and accomplishment since both developed and developing countries all have an equal voice (Shakow, 2006).

Finally, the performance-based funding mechanism is another essential system that ensures the efficiency of the Global Fund in its activities. The Global Fund has specific project indices and markers that it employs to enable its projects to be measured more directly and to provide additional funding (Shakow, 2006). For example, each fund grant sets a target for the number of persons it aims to reach or clinics it seeks to create with major interventions throughout the grant, usually five years. The commitment to measure and document results require that agreement must be reached on performance benchmarks with the Global Fund Secretariat once a proposal has received approval. The targets for the first two years must be met before the second tranche of funds is released. This strong emphasis on performance and the Global Fund's commitment to this demonstrated by the withholding of grants and non-automaticity of grant confirmation after two years and the refusal to approve second tranche releases due to failure to meet required measures has given recipients greater incentives to deliver project outcomes in a timely fashion (Shakow, 2006).

2.1.9 Achievements of the Global Fund in Health Care Delivery in Developing Countries

The Global Fund has recorded significant progress in many developing countries since its start of operations. The achievements of the Global Fund are demonstrated in several developing countries in the form of health promotion, strengthening of health systems, refurbishment and renovation of health facilities, to mention a few. Such activities are based mainly on the needs of the country and the mission of the Global Fund to combat infectious diseases in particular AIDS, tuberculosis and malaria primarily where health issues cannot be fully absorbed by the domestic government owing to resource inadequacy. Since its establishment, the Global Fund has extended its health care support to reach the poor and vulnerable in low and medium-term countries to complement efforts of developing countries to promote quality health.

In the fight against the major communicable diseases, the Global Fund has remarkable achievement in the control and prevention of such infectious diseases in countries like Bhutan, Cameroon, Timor-Leste, Rwanda, Laos and Malawi through the distribution of ITNs/LLINs, provision of antiretroviral drugs, procurement of medical supplies and logistics as well as rapid scale of ACT coverage. In Bhutan, for instance, the Global Fund supported the introduction of bivalent Rapid Diagnostic Tests (RDTs) in 2006 to assist in the diagnosis of malaria in areas where microscopy services were limited. In the same year, with the assistance of the Global Fund, LLINs and Artemisinin-based Combination Therapies (ACTs) were introduced (Yangzom et al., 2012). This ensured distribution of about 228,053 LLINs to malaria-endemic hard-to-reach areas between 2006 and 2010. This further translated into the protection of an estimated 77.2% of the risk population in the endemic, Southern districts out of the total population at risk (Yangzom et al., 2012). This contributed to a downward trend in malaria incidence in the country with microscopy-confirmed malaria cases declining by 98.7% between 1994 and 2010 (Yangzom et al., 2012).

In Cameroon, the Global Fund supported the control of tuberculosis in the Batibo District Hospital immensely through capacity building of personnel in TB diagnosis and management, laboratory strengthening, providing supplies for TB diagnosis, appointment of TB unit coordinator and a TB-HIV counsellor as well as waiving fees for TB treatment and HIV testing (Yumo, Mbanya, Kuaban, & Neuhann, 2011). This positively affected the indicators of the TB programme in the Batibo District Hospital. For instance, 35% treatment success rate was recorded in the facility in 2006, which represented 100% achievement of the MDG for treatment of TB patients (Yumo et al., 2011). Testing of TB patients for HIV also increased to almost 100% in 2007 following the waivers and subsequently resulted in 82% of TB patients co-infected with HIV receiving antiretroviral treatment (Yumo et al., 2011).

Following the support of the ART programme by the Global Fund and WHO in Malawi, the number of patients that were on ART in the public health sector increased from an estimated 4000 patients in 2004 to 37840 by the end of 2005 representing 47% of the national target (Libamba et al., 2007).

The Global Fund has made significant progress in advancing child and maternal health as well as improving the overall health systems in developing countries. Together with governments of developing countries, the Global Fund worked towards achieving the MDGs and is still engaged with countries towards achieving the SDGs.

2.2 Ghana's Health Sector

The health sector of Ghana akin to other developing countries in SSA can be categorised into public and private organisational groupings. The public health sector is organised, controlled and funded by the government of Ghana. In Ghana, the Ministry of Health (MOH) is responsible for the regulation of the overall health sector. The function of the Ministry includes the formulation of policies, coordination and regulation of the various health sector stakeholders. In the formulation of health policies and regulatory guidelines to realize the goals of the ministry, the health ministry has twenty-two (22) agencies and collaborates with multiple ministries, departments and agencies (MDAs) and other health sector stakeholders and partners like Metropolitan, Municipal and District Assemblies (MMDAs), Development Partners (DPs) and the private sector (Aseweh Abor, Abekah-Nkrumah, & Abor, 2008; MOH, 2014). The vision of the health sector for national development is to improve health status and have a healthy population, and the objective of the ministry is to guarantee a health industry that is effectively functioning and capable of keeping a healthy and productive populace (MOH, 2014). In addition to the ministry; the Ghana Health Service (GHS), the

military and police hospitals, the four teaching hospitals, the District Health Directorate (DHD) and other semiautonomous government departments accountable for social security which may involve health care are constituents of the public health organisations. The private sector on the opposite side can be classified into profit-centred and non-profit organisations (Basu, Andrews, Kishore, Panjabi, & Stuckler, 2012). This sector also provides vital health services. The profit-oriented organisations include facilities that provide homoeopathy health care services to the general populace through a fee system. Traditional practitioners, company health service (mining and plantations) and the private medical hospitals are featured under these profit-centred firms. These organizations are relatively smaller in size and run an efficient system largely patronized by the middle class. Basu et al. (2012) assert that this sector is sometimes more accountable, efficient and sustainable compared to the healthcare services provided by the public sector.

2.2.1 Major Health Reforms and Policies

Ghana's health sector has undergone major policy reforms since independence with several initiatives geared towards attaining universal health accessibility across the country and improving the health status of its people (Van den Boom, Nsowah-Nuamah, & Overbosch, 2010). Efforts to reform Ghana's health sector commenced in 1988, driven by the need to stop the declining trend in the health sector performance which was mainly influenced by the economic crisis that started in the late 1970s (Adjei, 2003). In the early 1990's, efforts to restructure and improve the health sector received a new impetus and boost when further initiatives were articulated for the development of the health sector as component of an overall long-term vision for the future growth and development of the country as framed in the policy document "Ghana Vision 2020" (Adjei, 2003; Van den Boom et al., 2010). The Ministry of Health produced the 'Medium Term Health Strategy (MTHS)' document and a Fiver Year (5-year) programme of work as its inputs to the development objectives of the

policy document called “Ghana Vision 2020” (Dovlo, 1998). This aimed at directing health development in the country and the objectives of the Programme of Work were to achieve;

- Increased geographical and financial access to basic services
- Better quality of care in all health facilities and during outreaches
- Improved efficiency in the health sector
 - Closer collaboration and partnership between the health sector and communities, other sectors and private providers both allopathic and traditional
 - Increased overall resources in the health sector, equitably and efficiently distributed” (MOH, 2001, p. 2).

The MTHS had a principle of increasing accessibility, promoting quality health services and improving the efficient use of health services (Sanders, Dovlo, Meeus, & Lehmann, 2003). It also aimed at strengthening links and connections with other sectors, such as the Ministry of Agriculture and the Ministry of Education as a means of engagement in health-related interventions (MOH, 2001). The introduction of the user fees system constituted one of the key components of a range of strategies or approaches of global health reform agenda which was connected to a wide range of public sector reform ideas and policies recognised as the “New Public Management” (Russell, Bennett, & Mills, 1999). The NPM in the health sector of Ghana included the decentralization of the health sector with modifications in original management and culture, autonomous hospital governance board and deregulation, enablement and regulation of the private sector with all aimed at achieving sustainable health services financing, quality improvement and equitable access (Russell et al., 1999).

The Ghana Health Service (GHS) was also established in 1996 as part of the Ghana health sector reform following the enactment into law the “Ghana Health Service and Teaching Hospitals (1996) Act”- Act 525 (Dovlo, 1998). The setting up of the GHS was an integral component of the critical strategies in the Ghana Health Sector Reform process as drawn in the MTHS. The GHS signifies an autonomous executive agency tasked with the role of implementing public health sector policies under the administrative supervision of the

Ministry of Health. The GHS offers comprehensive health care services directly at all levels and by contracting out to other agencies. It is also mandated to provide and to prudently manage accessible health service with an emphasis on primary health care at the sub-district, district and regional levels in line with approved national policies.

As a long term measure to address the challenge of financial access to health posed by the user fee system, the Ghana government passed a National Health Insurance Act 650 in 2003 thereby mandating the formation of district-wide mutual health organisation (Jehu-Appiah et al., 2011). The health insurance forms a significant component of the Ghana Poverty Reduction Strategy (GPRS) of the government to deal with poverty by delivering affordable and accessible health care to all residents in Ghana particularly the poor and vulnerable (Jehu-Appiah et al., 2011). The National Health Insurance Scheme (NHIS) aimed at abolishing the out-of-pocket payment for health care. The social intervention scheme assures equitable, universal access and financial coverage for essential health care services to residents in Ghana (Teye, Arhin, & Anamzoya, 2015). The NHIS is distinct as it combines both Social Health Insurance and Mutual Health Insurance concepts (Jehu-Appiah et al., 2011).

The scheme despite slight variations in premiums had members make no less than GH ₵7.20 as an annual subscription. Members employed in the formal sector have 2.5% of their contribution to Social Security and National Insurance Trust (SSNIT) subtracted monthly as their health insurance premium and qualified them as automatic beneficiaries of the scheme. Individuals in the informal sector and self-employed persons pay between GH ₵7.20 and GH₵48.00 as annual contributions based on income levels (Mensah, Oppong, & Schmidt, 2010). Premiums of contributors also cover children and dependents below 18 years. Also, pensioners who are formal sector contributors to SSNIT, the aged, 70 years plus in the informal sector and the indigent are exempted from paying the minimum contribution as

designed by the legislative instrument (Mensah et al., 2010). As of 2017, the scheme had over 10.5 million membership representing 35.3% of the total population (MOH, 2018). The health care package of the health scheme includes inpatient and outpatient services, eye care, oral health, medical emergencies as well as maternal coverage. Malaria, diarrhoea, hypertension, infections of the respiratory tract, asthma are some diseases catered for by the health insurance scheme. The scheme covers a total of about 95% of fundamental health problems in Ghana (Witter & Garshong, 2009).

In 2007, the National Health Policy was introduced by the government of Ghana with the theme “Creating Wealth through Health”. This health policy situated health at the centre of socio-economic development and recognised health as a key driver of development and creation of wealth. The policy emphasised the benefits accrued from considerable investments in health and nutrition as well as the significant functions that healthy lifestyle, a healthy environment and an active health industry performs in advancing health and socio-economic development. The National Health Policy saw a “paradigm shift from curative action to health promotion and the prevention of ill-health” (MOH, 2007, p. 9). The policy also aims at ensuring the decline of cases of malaria outbreak, HIV/AIDS, measles, cholera, tuberculosis, yellow fever and river blindness (Agyapong, 2017). The Health Sector Medium Term Development Plan (HSMTDP) for 2014-2017 was also developed to highlight the contribution of the health sector to development priorities and projections in the area of employment, human development and productivity in the National Medium-Term Development Policy Framework (MOH, 2014). The HSMTDP gears towards attaining universal health coverage in Ghana as well as advancing the health status of Ghanaian (MOH, 2014). It seeks to control endemic diseases, promote health infrastructure and establish a favourable environment to ensure efficiency in health care delivery in Ghana. The HSMTDP also includes the expansion of the coverage of the Community-Based Health Planning and

Services (CHPS) programme as an underlying aim. The CHPS initiative seeks to improve equitable geographical access to health services through the creation of community health compounds in underprivileged sub-district communities (Assan, Takian, Aikins, & Akbarisari, 2019). The sub-district communities are further split into zones with a catchment population of 3000 to 4500 where primary health care services are delivered by Community Health Officers (CHOs) who usually are trained nurses (Nyonator, Awoonor-Williams, Phillips, Jones, & Miller, 2005). Currently, about 5100 functional CHPS zones exist under this initiative to provide services like; child and adolescent health care services, maternal and reproductive health care services, treatment of minor illnesses and advancement of health (Adongo et al., 2014; GHS, 2018).

2.2.2 Health Care Financing In Ghana

Financing of health care is a significant concern for many developing countries (Addae-Korankye, 2013). Health care financing is critical in Ghana, given that it is structured to include both formal and informal sectors, rural and urban areas as well as low and high-income earners. The government, however, continues to intensify her efforts to raise additional capital to augment financing for public health. The present health scheme has a complicated structure with diversity in sources of funds for financing. The sector has its financing composition varying from budgetary allocations, earmarked taxes, out-of-pocket payments and donors.

Notwithstanding that, the government has found difficulty in meeting the 15% budgetary allocation to the health sector as established in the Abuja Declaration. The nearest the ministry reached to attain the Abuja target of 15% allocation of national budget occurred in 2014 when the government apportioned 10.6% to the health sector. The ministry of health's share of the national budget has not seen significant increment since with a decline from 6.8% national budget allocation in 2016 to 6.5% in 2017 (MOH, 2018). About 47.9% of the

total expenditure of the health ministry goes into employee compensation with the cost incurred on goods and services amounting to 41.3% as well as 10.9% on assets (MOH, 2018). Against this diminishing budget support and the financial challenges of the National Health Insurance Scheme (NHIS) in timely reimbursement of providers, other sources of funding from non-traditional sources cannot be downplayed. These challenges add to the burden of health care financing in the country.

2.2.3 Water and Sanitation Issues

Ghana faces challenges in water supply and sanitation sector. Access to a good water supply is a primary concern, especially in rural areas (Addo, Mensah, Bekoe, Bonsu, & Akyeh, 2009). Due to this inadequate supply of water in the rural areas, water bodies and the rains serve mainly as the source of water for the people in these communities. The government and the Ghana Water Company Limited are working relentlessly to ensure equitable geographical supply of water. Despite these efforts, certain human activities and practices like illegal mining, poor farm practices, and indiscriminate disposal of waste have exacerbated the country's already insufficient water supply and sanitation. Contaminated drinking water coupled with land pollution can lead to the transmission of diseases like cholera, dysentery, diarrhoea, typhoid fever and hepatitis. Poor environmental conditions and contaminated water are dominant causes of cholera and diarrhoea in Ghana (Ofori-Adjei & Koram, 2014). According to MOH (2015), mortalities from cholera out of 28922 cases reported cases in 2014 amounted to 243 deaths.

2.3 Health Systems in Ghana

The end of World War II has seen an increment in international awareness creation and efforts from domestic governments in addressing health issues. Various health policies and

initiatives have yielded relative successes and positive outcomes. Health system strengthening, ensuring universal access to health care, adoption of health issues in the Millennium Development Goals (MDGs) and its replacement Sustainable Development Goals (SDGs) of the United Nations have all been targeted at promoting and advancing vital components of the health sector in the country; health facilities, health personnel, access to quality health care and medicines. It is of relevance to discuss the status of these essential health components of Ghana's health system.

2.3.1 Health Facilities

In Africa, health services can be obtained from public and private health care providers. Public health care is generally delivered by the government through national health care systems. The private health care may be provided by profit-centred health facilities and self-employed practitioners and nonprofit oriented providers, including traditional medicine healers and faith-based health care providers (Basu et al., 2012).

In Ghana, health facilities vary from public health facilities to non-public health sectors who deliver essential medical service across the country. The public sector includes teaching hospitals, regional hospitals, district hospitals and community health centres while the non-public sector includes private health centres and Christian Health Association Ghana (CHAG). In terms of health facilities, medical service providers, hospital beds and health equipment, the Ghanaian public health sector possesses a significant proportion of the health market. The public health facilities are the primary destination for several Ghanaians reaching out for medical and health-related services though plagued with challenges like; drug and medical supply insufficiencies, inadequate laboratories, limited operating theatres and also inadequate diagnostic and medical laboratory equipment. The country has, however, enjoyed a remarkable improvement in the number of health facilities but still needs more to commensurate with the growing population (Saleh, 2012). The government has increased

capital investment in this regard but has been challenged by the allocation based on administrative levels other than on needs or equity-based standards (Asante & Zwi, 2009). The Northern Region of Ghana, for example, has the worst health outcomes but are recipients of the least allocation of resources for health (Saleh, 2012). The CHPS initiative attempts to solve the problem of inequity and enables the GHS to reduce health inequalities by removing geographical barriers to health care thereby moving primary health towards easily accessible and convenient community locations (GHS, 2017). Stemming from health facilities, the ambulance service in Ghana remains insufficient for the growing population. Out of about 260 Metropolitan, Municipal and District Assemblies (MMDAs) and about 29 million people, only 55 national ambulances are in correct shape and in operation to manage victims of disaster, accidents and other medical emergencies in the country (Habor, 2018). Also, at the sub-district level, including CHPS zones, more than 70% of the motorbikes in usage are over six (6) years and require replacement to foster geographical access (GHS, 2017).

2.3.2 Health Personnel

In every health care system, the health workforce represents the backbone and the lubricant that facilitates the seamless implementation of health policies and actions for sustainable socio-economic development (Anyangwe & Mtonga, 2007). The health personnel comprises health service providers like community health workers, pharmacists, midwives, nurses, doctors and the staff responsible for management (Fan & Anand, 2016). Ensuring universal access to skilled, well-motivated and supported health workers is, therefore, a necessary condition to assist in the realisation of the human right to health which lies as a core component of every global health goal (Chen, 2010). In Ghana, inadequate remuneration of health workers, unfavourable working conditions and the problem of brain drain have culminated in the shortage of health personnel. Uneven distribution of skilled health personnel is also a challenge in the health sector of Ghana. This critical challenge results

from the reluctance of trained health professionals or officers to accept postings to rural areas where their services are most needed (Adzei & Atinga, 2012). The distribution of health workers in Ghana is largely urban-concentrated with a greater density of health workers per 1000 population in Greater Accra, Ashanti and Volta regions and particularly the capital cities with Northern Region having the lowest ratio (Saleh, 2012).

2.3.3 Access to health service

Access to health service includes the ease for the acquisition of needed medical service or care. Major barriers to health service access include financial and transportation constraints. Financial hindrances involve high cost of health care, inadequate or absence of insurance, while transportation challenges include issues with geographical access and road networks. In Ghana, low standards of living and poor transportation system serves as a hindrance to access to health care in the country. The past few years have seen significant strides in access to health care in Ghana. Health facilities have seen an increment in coverage areas, and the Community-based Health Planning and Services has been promoted as a strategy to support community-based primary health care (NHIA, 2012; Nyongator et al., 2005). The employment of drones in the transportation of essential medicines recently launched by the government of Ghana to guarantee the successful implementation of the Universal Health Access to Health Care constitutes a major initiative to ensure that essential drugs reach inaccessible areas. The drones operate on a 24-hour basis and have four distribution points to enable the conveyance of life-saving drugs and medical supplies, including emergency blood and oxytocin (Knott, 2019; Takyi-Boadu, 2019). The NHIS introduced in 2003 also promotes financial access to quality health care for Ghanaians, especially the poor and the vulnerable. Included in the scheme are free maternal health care services and free mental health services. Despite these efforts, access to health service is still a challenge in Ghana. Only an estimated 35% of the

population has active NHIS membership (MOH, 2018). This relatively low percentage indicates the financial challenge to enrol under the scheme. Proximity to health facilities, poor road infrastructure as well as financial limitation thus amounts to the challenges of accessibility to health in Ghana.

2.3.4 Medicines

Essential medicines are considered as medications that are required to meet the priority health care needs of the populace (Laing, Waning, Gray, Ford, & Hoen, 2003). Medicines are vital elements in the maintenance of health and the treatment of diseases. The Ghana health system also encounters the challenge of availability and affordability of essential drugs. A significant percentage of the population is deprived of access to medicines largely because of deficiency in purchasing power (Nyanwura & Esena, 2013). In the Five-Year program ranging from 2007 to 2011, the MOH emphasised the need to expand access to medicines, improve supply management systems, increase quality assurance and encourage the rational use of drugs (Saleh, 2012). There has also been an increase in the availability of antimalarial, antibiotics and oxytocin in various health facilities in the country. With retail pharmacies growing exponentially, access to drugs and consumables for obstetric and neonatal care and services have also improved across health facilities in the country (Saleh, 2012). The NHIS has also removed financial barrier and burden on certain medications, particularly those enlisted as part of drugs the scheme covers. Certain challenges remain notwithstanding the progress made in the accessibility and affordability of medicines. The NHIS which cuts financial expense on enlisted drugs has been subject to severe criticisms for late repayments, and reimbursements for services rendered to its clients (Osei-Assibey, 2016). This has resulted in the denial of card bearers of certain health services like medicines acquisition (Osei-Assibey, 2016). The costs of drugs not captured by the NHIS are also usually high. Access to drugs like retroviral drugs and medicine to treat HIV/AIDS and Tuberculosis are also not easily

attainable due to dependence on foreign assistance like the Global Fund for financing and procurement.

2.4 Disease Burden in Ghana

2.4.1 Communicable Diseases

Pathogenic microorganisms such as viruses, bacteria, fungi and parasites cause communicable diseases. These diseases spread from one individual to another, directly or indirectly. Ghana faces several infectious diseases that contribute negatively to the quality of health and healthspan in the country. The main communicable diseases in Ghana include malaria, HIV/AIDS and tuberculosis.

Malaria

Malaria remains a major cause of mortality and morbidity globally. According to the WHO, an estimated 219 million cases of malaria occurred in 2017 worldwide with WHO African Region bearing the largest burden of malaria morbidity with 200 million representing 92% in 2017 (WHO, 2018b). Malaria is one of the highest outpatient cases recorded in Ghana. In 2016, the country recorded approximately 10.4 million suspected malaria cases representing about 39% of Out-Patient Department (OPD) cases with about 25% and 4% of total admissions and total deaths respectively attributable to malaria (GHS, 2017). Out of this, under-5 malaria deaths constituted 46.7% (GHS, 2017). Pregnant women also formed 1.42% of malaria patients in the country (GHS, 2017). Several strategies and interventions have been employed to reduce malaria in Ghana. The introduction of long-lasting insecticides treated nets (LLINs), seasonal malaria chemoprevention (SMC) and indoor residual spraying (IRS) are all directed at tackling this disease. Despite these efforts, malaria remains prevalent in Ghana.

Tuberculosis (TB)

Tuberculosis is one of the world's largest leading killers amongst infectious diseases (Hooda, Mittal, & Sofat, 2019). In 2017, the disease accounted for the death of 1.6 million people worldwide, and this had 300,000 people with HIV inclusive (Kelland, 2019; Qasim, 2019). Out of an estimated 10 million new cases of TB in 2016, about 2.5 million were recorded from Africa, consequently leading to the death of about 417,000 people in the African region (WHO, 2017). Moderate progress has been made in the control of tuberculosis with cure rates between the ranges of 74-75% between the periods of 2010 and 2015. In 2016, 87% of all TB patients diagnosed completed their treatment successfully (GHS, 2017). The major challenges the government faces in addressing TB in the country are inadequate screening and the insufficient facilities for diagnosing TB patients. In essence, the rate for detection of cases remains low.

HIV/AIDS

HIV/AIDS remains a global public health problem with the majority of people living with HIV found in sub-Saharan Africa. In 2017, an estimated 36.9 million people were living with the disease, and this included about 1.8 million children (UNAIDS, 2018). An estimated 35.4 million individuals have died of AIDS-related illnesses since the beginning of the epidemic, with about 940,000 suffering mortality from AIDS-related disease in 2017 alone (UNAIDS, 2018). As of 2017, the estimated number of people living with HIV in Ghana was 310000, with a reported 126000 number of persons receiving antiretroviral therapy (WHO, 2019). This includes mostly youth and pregnant women. Heterosexual intercourse and mother-to-child transmission are major means of transmission of this disease. Ghana has benefited from the global scale of interventions to combat the disease with an estimated 40% of antiretroviral therapy coverage among people living with HIV as of 2017 (WHO, 2019). The government,

through awareness creation, education and counselling and provision of antiretroviral drugs, have also seen relative declines in the spread of the disease. Despite all these, it is still relevant for more commitment of resources and global partnership to address the HIV/AIDS menace, which has adverse effects on the health of individuals and the development of the nation.

2.4.2 Non-communicable Diseases (NCDs)

NCDs are diseases or conditions that occur in or are known to affect individuals over an extensive period and for which there are no known causative agents that are transmitted from one affected individual to another (GHS, 2017). In Ghana, major NCDs include cancers, cardiovascular diseases, chronic respiratory diseases, sickle cell diseases and diabetes. NCDs make significant contributions to disability, illnesses and deaths in Ghana and are estimated to account for 43% of all deaths in the country (WHO, 2018a). NCDs are preventable but are very high in Ghana due to alcohol abuse, poor dietary habits, inadequate physical activities, tobacco use and stress. Efforts to address NCDs in Ghana include the Regenerative Health and Nutrition Programme which aims at addressing five dimensions of preventive health; diet, water intake, rest, sanitation and exercise (Aikins, Kushitor, Koram, Gyamfi, & Ogedegbe, 2014).

2.4.3 Issues of Maternal Health and Child Care

Maternal Health

Maternal health is a major global health issue and a significant reproductive health concern in most developing countries (Magadi, Zulu, & Brockerhoff, 2003). Sub-Saharan Africa countries suffer from about 66% of all maternal deaths annually, with approximately 546 maternal deaths per 100,000 live births (Graham et al., 2016). In Ghana, maternal health is an area of concern for the Ministry of Health and its agencies. Maternal mortality has

significantly declined from 570 deaths per 100,000 live births in 2000 to 319 deaths per 100,000 live births (GSS, GHS, & ICF, 2015). According to GHS (2017), antenatal coverage (ANC) has also seen a decline from 87.3% in 2014 to 84.1% in 2016. This manifests a decrease in the number of pregnant women who have had at least one contact with a skilled health provider (GHS, 2017). Insufficient care during pregnancy breaks a critical connection in the continuum of care, which can influence the result of pregnancy (GHS, 2017). The coverage of at least four ANC visits in 2016 recorded an approximately 76% low despite interventions like Social Behaviour Change Communication (SBCC) activities implemented to create awareness and inform expectant mothers on the need for early and regular ANC attendance. With haemorrhage and hypertensive disorders contributing to about 74% of direct causes of maternal deaths coupled with indirect causes like malaria, HIV, severe anaemia, sickle cell disease and embolism, poor attendance to ANC visits is a huge concern. Family planning and the use of contraceptives also remain low in Ghana. According to Lee, Odoi, Opare-Addo, and Dassah (2012), inherent socio-cultural conservativeness has influenced the acceptance of family planning services negatively. The provision of affordable contraceptives, sharing of information, education and counselling as strategies adopted to encourage family planning have not yielded significant results in Ghana (GHS, 2017).

Child and Adolescent Health

The world has made outstanding improvement in reducing child mortality with global under-five mortality dropping from about 91 deaths per 1000 live births in 1990 to an estimated 43 deaths per 1000 live births in 2015 (Alkema et al., 2016). The activities of the government in promoting quality child and adolescent health have been immense evident in interventions like the expansion of child immunisation programmes, promotion of breastfeeding and timely weaning, malaria control interventions as well as acute respiratory infection control measures (MOH, 2015). Child mortality in Ghana has seen a downward trend since 1988 with a decline

of infant mortality from 77 deaths per 1000 live births in 1988 to 41 in 1000 live births in 2014 (GSS et al., 2015). According to the Ghana Demographic and Health Survey (GDHS), under 5-mortality has seen decline from 155 deaths per 1000 live births to 60 deaths per 1000 live births with neonatal mortality also declining from 41 to 29 deaths per 1,000 live births within the same the period of time (GSS et al., 2015). Child morbidity conditions in Ghana include diarrhoea, acute respiratory infection, fever, malaria, malnutrition and pneumonia (GSS et al., 2015). Under 5-mortality and child mortality are higher in rural areas than the urban areas according to the GDHS report in 2014.

2.5 Critical Constraints in the health sector of Ghana

Ghana has made some remarkable strides in promoting medical care and the overall health system (Drislane, Akpalu, & Wegdam, 2014). Several actions towards universal health coverage have been taken through major health reforms and increases in health expenditure. This has been evident after the WHO assessment of health systems in 2000, where Ghana was positioned in the 135th place out of 191 countries in the evaluation. For example, the government of Ghana introduced the NHIS in 2004 to provide financial protection to citizens. Government total expenditure as a percentage of GDP increased from 3.0 to 3.6% between 2000 and 2014 (Alshamsan, Lee, Rana, Areabi, & Millett, 2017). The CHPS initiative has also enhanced universal coverage and accessibility to health care. Notwithstanding, environmental challenges, poverty and inequalities in health care delivery, demographic and behavioural styles, to mention a few remain critical constraints to the health sector of the country.

Demographic and lifestyle changes

Ghana has seen a population increment from 18,912,079 in 2000 to 24,658,823 in 2010, according to the 2010 census conducted (GSS, 2012). This represents a 30.4% population

growth within the decade. It can be drawn from the census that this expanding population is accompanied by increased urbanisation. The increasing rate of urbanisation is a product of a combination of high rates increase of the national people and net in-migration to urban areas (Ardayfio-Schandorf, Yankson, & Bertrand, 2012). Rapid urban development poses severe constraints on various sectors of the economy, including the health sector. Multiple modifications in behaviour and lifestyles are also associated with urbanisation. Increase in sugar intake levels, increase in salt and fat diets, inadequate rest, insufficient physical exercise, unprotected sex, drug or alcohol abuse, careless driving and the consumption of junk food are various lifestyle alterations associated with urbanisation (MOH, 2007). Rapid urbanisation in Ghana has not been accompanied by corresponding infrastructural development. In other words, the pace of urbanisation in Ghana is not similar to the speed in the infrastructural development and social amenities establishment. As a result, the process has had consequences in the spring up of slums, overcrowding, congestion and pressure on available social facilities, inadequate water supply and poor sanitation. Some of these changes have the potential of easily transmitting NCDs among the population and, this poses significant threats with harmful consequences on the health system in the country.

Environmental issues

Environmental pollution or degradation in Ghana likewise poses threats and affect the quality of health in Ghana. Air, water and land pollution have significant health consequences. Emission of toxic and poisonous substances from industries and cars, poor waste disposal, illegal mining activities, poor farming practices can result in the spread of diseases. These factors are responsible for certain morbidity and mortality in the country. Cholera, malaria and diarrhoea are some of the conditions that are caused by the poor environment.

Poverty and inequalities in health care delivery

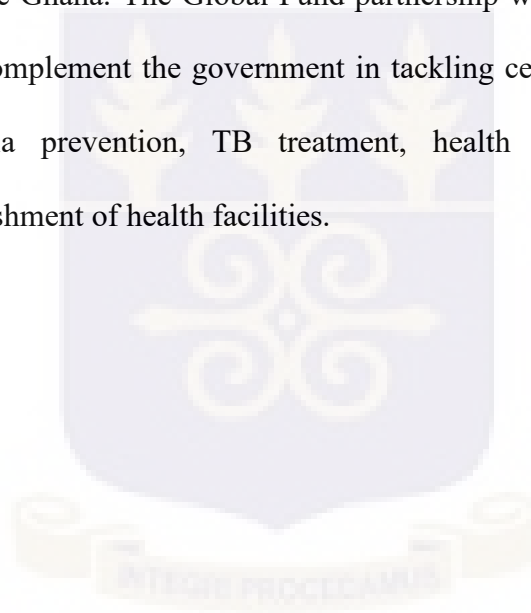
Poverty and inequalities present another significant barrier to health care in Ghana. According to the Ghana Living Standards Survey (GLSS), poverty incidence in Ghana has generally seen a decline from 31.9% in 2005/2006 to 23.4% in 2016/2017 (GSS, 2018). Notwithstanding, the same cannot be reported in the three northern regions of Ghana. These regions have seen a rise in poverty with the Northern, Upper East and Upper West regions, recording 61.1%, 54.8% and 70.9% respectively in poverty incidence rates in 2016/2017 (GSS, 2018). Poverty in Ghana is predominantly a rural phenomenon with the rural population having a higher incidence of poverty than the urban population (GSS, 2018). It is worth to note that considerable levels of poverty also exist in urban areas too. Closely connected with increased poverty levels are financial barriers in accessing quality health care services, malnutrition, poor sanitation, congested accommodation and increased vulnerability to the contraction of diseases like tuberculosis and Cholera during endemics or outbreaks. This also serves as a health sector constraint.

2.6 Conclusion

The chapter revealed the following as key health problems challenging the Ghana health sector; health personnel, infrastructural challenges, accessibility to health services, health financing, maternal and child health challenges and issues relating to water and sanitation.

The chapter recognised the following gaps in the health sector of Ghana: infrastructures, health personnel, equitable access, disease burden, maternal, child and adolescent health challenges, water and sanitation problems as the fundamental health issues facing the health sector. The chapter also identified demographics and lifestyle changes owing to rapid industrialisation as well as poverty and inequality as significant constraints in the health

sector of Ghana. Despite numerous efforts by the government to address some of these health challenges, the government's inadequate resource capacity has been a hindrance in the provision of efficient health care especially to the vulnerable and poor in the country. This implies that there is still the need for external assistance to support the provision of quality health services to the general populace. The Global Fund remains vital in complementing national efforts in bridging these health care gaps, particularly in the fight against some of the top causes of poor health in the country. The Global Fund with huge financial muscle and the mission to end the epidemics of AIDS, TB and Malaria has become a vital partner in developing countries like Ghana. The Global Fund partnership with Ghana is thus necessary for filling the gaps to complement the government in tackling certain health care issues like HIV/AIDS and malaria prevention, TB treatment, health education and awareness programmes and refurbishment of health facilities.



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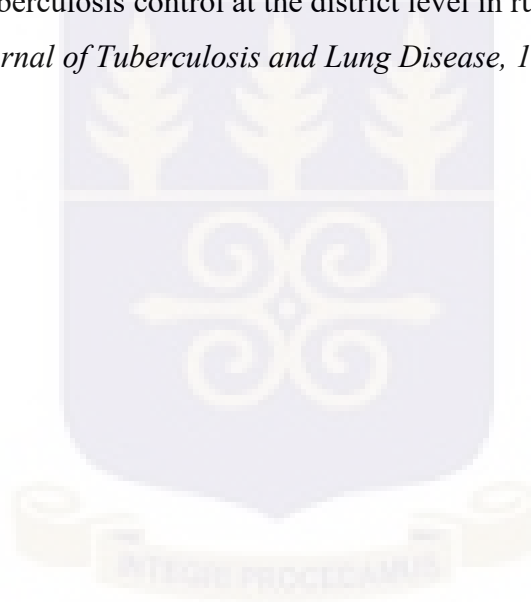
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CHAPTER THREE

THE CONTRIBUTION OF THE GLOBAL FUND TO GHANA'S HEALTH SECTOR

3.0 Introduction

This chapter examines the activities of the Global Fund in Ghana since 2002. The chapter highlights Global Fund relations with Ghana and touches on the beneficiaries of Global Fund activities in Ghana. The chapter also analyses the contribution of the Global Fund to the health sector of Ghana and the challenges and problems associated with its interventions in Ghana.

3.1 Global Fund- Ghana Relations

Ghana was the first nation to sign a Global Fund grant in 2002. The Ministry of Health is the major recipient of Global Fund grants in Ghana, and the Ghana Health Service is its implementing agency. Global Fund grants at the national level are implemented through the national programmes for the three priority diseases. These are the National Malaria Control Programme (NMCP), The National AIDS/STI Control Programme (NACP) and the National Tuberculosis Control Program (NTP). Other recipients of the Global Fund grants over the years include Ghana AIDS Commission (GAC), Planned Parenthood Association of Ghana (PPAG), West Africa Program to Combat AIDS and STI (WAPCAS), Adventist Development and Relief Agency (ADRA) Ghana and AngloGold Ashanti Malaria Control Limited (AGAMal).

As part of the fundamental requirements for Global Fund grants, the Ghana-CCM was established in February 2002 for proposal development and to oversee the implementation of

approved Global Fund projects. The body functions as a governance body anchored on the principle of partnership among a broad range of stakeholders whose representatives feel ownership of programmes and have equal voting rights. The current membership of twenty-five (25) is drawn from three (3) main sectors which are the public sector, civil society and multilateral and bilateral agencies. The public sector boasts of eight (8) members with two (2) from the MOH/GHS and one each from the following public sectors; Education sector, Ghana AIDS Commission, Local Government sector, Gender, Children & Social Protection, Finance and Economic Planning and Commission of Human Rights and Administrative Justice (CHRAJ) (CCM Ghana, 2019a). Thirteen (13) members of the civil society also constitute the Ghana-CCM. These include four (4) NGOs/ Community-Based Organizations (CBOs), three (3) persons living with or affected by the disease and one each from the following civil society groups; private sector, professional associations, Faith-Based Organizations (FBOs), key population, Women and Children Interest Groups, as well as academic and research institutions (CCM Ghana, 2019a). With regards to the multilateral and bilateral agencies; four (4) members shared equally between multilateral and bilateral organisations represent that sector on the Ghana-CCM (CCM Ghana, 2019a).

The Global Fund remains a significant partner in Ghana with grants of US\$965 million signed to date. A total of US\$804 million has been disbursed to combat against the three diseases (The Global Fund, 2019). The Global Fund has allocated an estimated US\$ 194 million to assist in the fight against HIV/AIDS, TB and Malaria alongside strengthening health systems in Ghana for 2017-2019 cycle (The Global Fund, 2019). The Global Fund, in addition, has allocated catalytic funding of US\$5.9 million to scale up interventions in key populations and human rights barriers to services in Ghana.

Table 1.0 shows the active grants of the Global Fund and the grant components in Ghana as of April 2019.

Table 3. 1 Active Global Fund Grants from January 2018 to December 2020

PRINCIPAL RECIPIENT	GRANT COMPONENT	GRANT PERIOD	SIGNED AMOUNT(US\$)	DISBURSED AS AT APRIL 2,2019 (US\$)
MOH	HIV/AIDS & TB	Jan-2018 to Dec-2020	76,502,454	10,012,181
MOH	Malaria	Jan-2018 to Dec-2020	94,148,208	28,692,996
AngloGold Ashanti Malaria	Malaria	Jan-2018 to Dec-2020	15,884,008	6,516,431
WAPCAS	HIV/AIDS	Jan-2018 to Dec-2020	7,445,969	1,358,906
TOTAL			193,980,639	46,850,514

Source (The Global Fund, 2019).

3.2 Beneficiaries of Global Fund activities

Interview conducted with Mr Benjamin Spears N. Cheabu, the Program Officer for Oversight and Monitoring of Country Coordinating Mechanism of the Global Fund to fight AIDS, TB and malaria in Ghana revealed that the entire population of Ghana is a target group of Global Fund (Field Interview, 2019). The Global Fund places a huge premium on the whole country's well-being. However, there are specific target areas focused on by the Principal Recipients in various programmes. PRs may focus on key populations and vulnerable persons in society. These include "Men who have Sex with Men (MSM), Female Sex Workers (FSW), Persons living with HIV (PLHIV), Persons Affected by Tuberculosis (PATB), people in prison and detention, children under-5, pregnant women and indigenous populations in malaria-endemic areas" (Field Interview, 2019).

3.3 Health programmes of the Global Fund

The interview conducted with the Ghana-CCM official revealed that the key interests of the Global Fund in the health sector is to complement the efforts of the government to help fill health care gaps in terms of health care accessibility, capacity of health personnel, state of health facilities, health education and awareness creation among the general populace (Field Interview, 2019). These interests are in sync with the objectives of the Global Fund, which aims at accelerating the end of epidemics of infectious diseases specifically, AIDS, TB and Malaria as well as strengthening health systems. In essence, resources are directed to areas that involve malaria management, HIV/AIDS prevention and treatment, tuberculosis treatment, immunisation, maternal and child health, provision of health care logistics, capacity building for health staff as well as health advocacy and awareness creation (Field Interview, 2019).

3.4 The Contribution of the Global Fund to the Health Sector of Ghana

This section provides details of the contribution of the Global Fund to the health sector of Ghana. It is worth noting that the Global Fund is a financing agency and does not engage directly in the delivery of clinical healthcare services in Ghana. The Global Fund is primarily involved in supporting interventions that seek to eliminate the priority diseases, improve human resource, increase advocacy as well as strengthening health systems.

3.4.1 Assisting in reducing disease burden

It is the primary mission of the Global Fund to reduce morbidity and mortality associated with HIV/AIDS, TB and malaria in Ghana. Therefore, each disease area is a priority area where individual interventions are financed or directed.

Malaria

Malaria has been one of the top causes of morbidity and mortality in Ghana over the years. Following the successes chalked by AngloGold Ashanti Malaria Control Programme in its Indoor Residual Spraying (IRS) programme in 2005, the institution was selected to be a principal recipient of Global Fund grant in 2009. Drastic reduction in OPD cases in Obuasi due to the IRS allowed the Global Fund to finance the institution to implement IRS in Obuasi as a malaria control measure to reduce morbidity and malaria-related mortality (CCM Ghana, 2018). IRS involves spraying interior walls of houses and kills mosquitoes when they are resting indoors after they have consumed a blood meal (CCM Ghana, 2018). The Global Fund supported AngloGold Ashanti Obuasi Malaria Control Programme to a tune of US\$ 133 million to further scale up IRS into more districts in Obuasi. A total of 571,139 structures out of a targeted 606,484 were sprayed with chemicals in twelve (12) districts between July and December 2012 (MOH, 2013). Populations of over 1.2 million people were estimated to be beneficiaries of IRS protection, and this had consequent declines in malaria-related morbidity (MOH, 2013). A total of 662 people were also trained on IRS while 88 people were recruited at the national, zonal and district level to manage the IRS programme (MOH, 2013).

In 2015, the Global Fund through AngloGold Ashanti Malaria Control Limited (AGAMal) further carried out IRS in nine (9) districts in Upper West region and the Obuasi Municipal in the Ashanti Region. Wa West, Wa Municipal, Wa East, Sissala West, Nadowli, Jirapa, Labussie Karni, Lawra and Sissala East were beneficiaries of this malaria prevention measure in the Upper West region (NMCP, 2016). This resulted in the spraying of 788,516 structures with insecticides to kill mosquitoes and corresponded to a 93.6% population coverage of found structures (NMCP, 2016). Since 2016, the IRS under the Global Fund support has been expanded to all parts of the Upper West region and extended to three (3) additional districts (Kassena Nankana, Builsa North and Builsa South districts) in the Upper East region of

Ghana (Field Interview). In 2017, the AGAMal furthered sprayed 94,486 structures, representing 67.71% of a total of 108,969 structures targeted for the year. This has resulted in declines in malaria morbidity in the regions as per the CCM assessment (Field Interview, 2019).

The Global Fund continually assists in the distribution of ITNs/LLINs to help combat malaria and reduce malaria cases. Ghana's Strategic Plan of Malaria Control (2005-2015) called for universal coverage of ITNs for two persons per ITN. The Global Fund remains supportive of this intervention to enhance distribution of ITNs to communities on a free basis to reduce malaria disease burden (Field Interview, 2019).

HIV/AIDS

Interventions directed to HIV/AIDS are generally geared towards controlling the transmission of the disease and treatment of infected persons. The Global Fund supports the activities of the MOH and more specifically, the NACP in interventions that aim at preventing and controlling the infection of the disease. In the provision of health care and assistance to people living with HIV, the Global Fund remains hugely supportive in the provision of antiretroviral therapy to treat affected patients (Field Interview, 2019). In line with the objective of the NACP in the areas of care and support to improve the quality of health and prolong the lives of Persons Living with HIV (PLHIV), the Global Fund through the NACP assisted in the enrolment of 12,920 adults and 894 children on antiretroviral therapy (NACP, 2010). In 2013, the Global Fund financial support coupled with the Government of Ghana assisted in the enrolment of 14,299 PLHIV made up of 13456 adults and 843 children on Antiretroviral (ARV) medication (NACP, 2013). This reduced mortality of persons on treatment with a recorded 90% of persons on ARVs surviving by the end of the year to support the socio-economic development of the country (NACP, 2013). As a preventive

measure, a total of 50 million condoms were procured by the NACP as part of its obligations under the Global Fund to provide affordable condoms to the general population (NACP, 2010).

Global Fund grants have also been delivered to PLHIV as a form of financial support for upkeeps and other basic needs. For instance, in 2007, a total of GHC 1,685,517 was given to 7018 members of PLHIV associations (NACP, 2010). The following year also saw an award of a grant of GHC 297,256 to a membership of 4,419 to assist in catering for core needs (NACP, 2010). The financial support grants to PLHIV continued in 2009, where 12,774 membership of PLHIV associations also benefitted from a total sum of GHC 961,629.60 (NACP, 2010). A further 10,619 membership also enjoyed some financial support of GHC 636,480 from the Global Fund grants in 2010 (NACP, 2010). This encouraged more people to enrol in the ARV programme (NACP, 2010).

TB

In tackling infirmities linked to TB, the Global Fund provides support for the expansion of the coverage and quality of DOTS (Field Interview, 2019). Following the low case detection of TB, the first national ‘TB Control Strategic Plan for Ghana’ was launched in 2001 to improve case finding of tuberculosis cases. Expansion of TB case management services was an objective of this strategy (Field Interview, 2019). In contribution to bridging the gap of physical access to care for TB patients, Mr Felix Afutu, the Monitoring and Evaluation officer at the NTP stated that “the Global Fund shared in the vision of expanding TB case management to include private sectors in 2004 in the Public-Private Mix (PPM)” (Field Interview, 2019). He added that this initiative led to the growth of diagnostic and treatment facilities beyond the public facilities in the Accra and Kumasi metropolitan areas (Field Interview, 2019). Over 400 private health facilities were involved in TB treatment by 2006,

and this resulted in about 12,463 numbers of cases detected in 2006, showing an increment from 8,245 in 1996 (Field Interview, 2019).

Challenges of the high cost of treatment of TB, resulting in low TB case detection was also identified by the NTP and recognised by the Global Fund. In efforts to address this gap, the Global Fund in 2004 assisted the NTP to reduce the cost of treatment through the ‘Enablers Package’ (GHS, 2007). As part of the package, the Global Fund provided support to offset the cost of diagnosis and treatment for patients and health facilities. This resulted in the scale-up of case detection. The Global Fund, besides, assists in the financing and distribution of anti-TB drugs as well as supporting with GeneXpert Test machines for TB diagnosis and resistance testing (Field Interview, 2019). The Global Fund encourages and supports the monitoring of drug resistance and HIV-TB co-infection (Field Interview, 2019).

3.4.2 Establishment and Refurbishment of Health Facilities

Improving the condition of health facilities to expand access, improve quality of service delivery and further strengthen the overall health system is an area of interest of the Global Fund. As part of improving health systems, the Global Fund grants have been employed in the establishment of buildings, refurbishment and renovation of old buildings and DOTS centres in the country.

To assist in the oversight of Global Fund-supported malaria interventions and other related health programmes, monies from the Global Fund grants financed the construction of an office building for NMCP in 2005 which continued in phases until 2011. In an interview with Mr Joseph Frimpong, the Deputy Manager of the NMCP, the Global Fund allowed for an estimated US\$ 1 million for expenses related to the building coupled with transformer, electrical works, plumbing activities and the security architecture of the building including the fence and burglar proofing to strengthen the health capacity. This has improved oversight

and monitoring of health interventions driven by the NMCP and supported by the Global Fund and or other health donor partners (Field Interview, 2019).

In 2006, as part of strengthening health systems, Global Fund grants were used in the establishment of office buildings in the NACP following the need to enhance monitoring and supervision of Global Fund grants (Field Interview, 2019). A total cost of US\$2 million was invested in the construction of the office building in Korle-Bu and expenditure including the physical structure, electrical works, transformer, plumbing works, burglar proofing and fence were borne out of Global Fund grants (The Global Fund, 2014).

Owing to the need for a place to ensure drug availability, promote drug efficacy preservation and safety of medical health products in Brong Ahafo region, Global Fund grants were used to construct a new regional medical store in 2009 (Field Interview, 2019). The regional medical store also included a cold storage facility and administrative offices for the day-to-day running of the facility. An approximate cost of US\$ 1.6 million of Global Fund grants was allowed for expenditures related to the construction of the medical store including the physical structure, electrical works, transformer, plumbing works and security architecture of the store such as burglar proofing (The Global Fund, 2014).

At Effia Nkwanta District Hospital in the Western Region, the Global Fund investment was used to finance the construction of a comprehensive care centre in the hospital as part of the efforts to improve access to health care (The Global Fund, 2014). The Global Fund allowed costs of about US\$ I million for the expenditure incurred concerning the establishment of the centre and this included; the physical structure, electrical works, plumbing works, and the security of the centre (The Global Fund, 2014). This contributes to the health capacity of the country as an estimated 700 people visit the facility for HIV testing on clinic days (Field Interview, 2019).

In the quest for storage facilities for health products and other related health commodities, the Global Fund grants of approximately US\$700,000 was allowed to finance the establishment of a cold store at the NACP office premises in Korle-Bu to serve as a storage facility in 2009 (The Global Fund, 2014). In an interview with Dr Stephen Ayisi Addo, the Programme Manager of the NACP he mentioned that the store has been essential in ensuring the storage and safety of items purchased with Global Fund grants and other health commodities that seek to improve the quality of health (Field Interview, 2019).

Mr Afutu, in an interview, asserted that the edifice of the NTP was built by the government of Ghana and substantial financial assistance from the Global Fund. According to him, “this edifice was essential to enhance the close monitoring and supervision of interventions geared towards the fight against tuberculosis in our country” (Field Interview, 2019). This is further highlighted in the Global Fund report that a total amount of about US\$ 800,000 was allowed by the Global Fund to assist in the establishment of this disease control programme building in the country (The Global Fund, 2014).

To create a conducive environment for effective interaction and service delivery, the Global Fund has also refurbished various health facilities, particularly DOTS centres in Accra and Kumasi metropolis (Field Interview, 2019). This was necessary to meet the objectives of the National Strategic Plan and the PPM to extend tuberculosis control, care and management to other private health facilities (Field Interview, 2019).

Mr Spears asserted that “except for the Greater Accra Regional store, the Global Fund in collaboration with the GHS financed the rehabilitation of all regional medical stores in the country” (Field Interview, 2019). Officials of the GHS alluded to this and indicated that this has improved drug preservation, safety and efficacy of stored health commodities.

In 2010, the Global Fund supported the NACP to give funds to the nineteen (19) districts within the country to refurbish forty (40) service delivery areas in six (6) regions as a means of strengthening the entire health system (NACP, 2010). Health facilities in the Ashanti, Brong Ahafo, Central, Greater Accra, Volta and Western regions were the beneficiaries of the refurbishment. Adding to this, the NACP official mentioned that these service delivery areas had created a congenial environment in the promotion of quality service delivery in the country (Field Interview, 2019).

The CCM official, however, noted that the Global Fund does not undertake large scale infrastructural project anymore. This comment aligns with the Global Fund policies as established in the “Guidelines for Budgeting in Global Fund Grants” updated in 2012 which indicates that the Global Fund grants may not be used to fund the construction of major infrastructural projects like a general hospital but may be used to finance the small-scale projects and refurbishment (The Global Fund, 2014). The establishments of the above facilities were retrospectively allowed by the Secretariat of the Global Fund as the facilities strengthen the overall health system (Field Interview, 2019).

3.4.3 Procurement of Health Products, Medicines and Supporting Laboratory Systems

Medical products and laboratory equipment are essential in the treatment, cure and prevention of diseases. In efforts to combat HIV/AIDS, the NACP with funding from the Global Fund and Japanese International Co-operation Agency (JICA) in 2010 provided laboratory equipment, HIV test kits and CD4 reagents to various health facilities in the country (NACP, 2010). In this regard, the Global Fund assisted with US\$7,573,360 for expenses related to health products and health equipment which included the procurement of HIV test kits, laboratory reagents, amongst others (NACP, 2010). The test kits, CD4 reagents and their complementary cleaning solutions promoted HIV testing across health facilities and ensured the seamless provision of services to PLHIV. A further US\$6,929,375 from the

Global Fund assisted in the finance of medicines and other pharmaceuticals like ARVs and opportunistic infections drugs (NACP, 2010). The Global Fund continued efforts in the provision of CD4 reagents and HIV test kits in 2013 to hospitals and clinics to enhance the delivery of HIV and AIDS-related services. This resulted in the testing of an estimated 74% of pregnant women for HIV (NACP, 2013).

In 2017, at an estimated cost of US\$25.3 million, Global Fund grants were used in the procurement of health products comprising pharmaceutical, non-pharmaceutical products and health equipment. Procured products include ARVs, test kits, viral load, haematology, chemistry reagents, CD4, amongst others (NACP, 2018). The Global Fund also assisted the country in scaling up access to GeneXpert test machines, from 15 in 2015 to 128 machines in 2017 (Field Interview, 2019). This has relatively increased the primary diagnosis of tuberculosis in various health facilities. The official of the NTP, however, lamented that the average utilisation rate for the GeneXpert machines was 2.1 tests daily per machine owing to the reluctance of staff to use the machines and inadequate training on new protocols (Field Interview, 2019).

In 2018, the Global Fund procured three viral load platforms for the NACP to assist in the measurement of the number of HIV particles in human blood and to indicate HIV transmission or HIV that is untreated or uncontrolled (Field interview, 2019). According to Dr Addo, this equipment has facilitated the scale up viral load testing in the country as per the reports from the 2018 sentinel survey (Field interview, 2019).

To support the pilot Point Mass Distribution (PMD) and Continuous distribution of LLINs to various households across the country, the Global Fund assisted with 3,194,300 LLINs for the mass campaign; 399,338 LLINs for ANC; 318,024 LLINs for Child Welfare Clinics and a further 678,134 LLINs for school distribution (NMCP, 2018). Consequently, 73% of the total

469,918 registrants of ANC were beneficiaries of this intervention. A total of 1,369,206 LLINs were distributed to pupils in Classes 2 & 6 across nine regions in Ghana. Special homes like Missionaries of Charity, Assurance of Hope for the needy, CWC Children's Home, Heart of the Father Outreach, Kinder Paradise, Heaven of Hope and Chance for the Children also benefitted from this malaria prevention measure (NMCP, 2018).

In 2014, the Global Fund realised that malaria testing was inadequate in the country (Field Interview, 2019). "To enhance the diagnosis of suspected malaria cases in endemic parts of the country, the Global Fund gave us a lot of test kits" (Field Interview). In line with this, the annual report of the NMCP stated that 500,000 Rapid Diagnostic Test kits (RDTs) were procured by the Global Fund in Ghana to improve testing of possible malaria disease (NMCP, 2015). These test kits were spread across all regions to assist in the implementation of Home-Based Care (HBC) and integrated Community Case Management (iCCM) activities. About 1,198,000 of Artesunate Amodiaquine malaria drugs were further distributed across 149 districts in 10 regions for iCCM following the support of the Global Fund (NMCP, 2015).

In 2017, the Global Fund further assisted with pharmaceutical products and medication to treat malaria in adults and children (Field Interview, 2019). A total of about 961,388 quantities of various antimalarial drugs were sponsored by the Global Fund (NMCP, 2018). These included; Injection Artesunate 30 mg, Artemether lumefantrine 12's, Artemether lumefantrine 18's, Artemether lumefantrine 24's, among other antimalarial drugs. In addition, the Global Fund contributed 5,500,000 quantities of RDTs to assist in preliminary medical screening across health facilities in Ghana with limited resources (NMCP, 2018). Following this, the proportion of OPD malaria cases tests for the year recorded 87.3% above the national target of 80% (NMCP, 2018).

Through the support of the Global Fund, Ghana continues to benefit from Private Sector Co-payment, which replaced the Affordable Medicines Facility-malaria (AMFm). These are pro-poor initiatives that make quality-assured ACTs available, accessible and affordable to the entire population (Field Interview, 2019). Through the provision of subsidies to manufacturers by the Global Fund, retail prices of quality-assured ACTs had been reduced, especially in rural settlements of the country (Field Interview, 2019). This has bridged the financial gap in accessing ACTs. As a result, persons in rural communities can get access to green leaf ACT at GHC 4.40 in community outlets lower than the average retail price of GHC4.63 (Field Interview, 2019). This has increased the patronage of the ACT.

3.4.4 Data and Logistics

Data management and logistics are essential components of health systems recognised by the Global Fund. Having received grants from the Round Eight of the Global Fund, the Ministry of Health/ Ghana Health Service was tasked to undertake bulk procurement of logistics for other recipients of the grants; GAC, NACP, ADRA and PPAG. In this regard, the NACP procured twenty-seven (27) each of Televisions (TVs) and three (3) photocopier machines to enhance the works of the implementing partners for the other PRs (NACP, 2010). An additional twenty-four (24) digital cameras and eleven (11) Panasonic video cameras were also procured in this period (NACP, 2010). Furthermore, a sum of sixty (60) computers, thirty-one (31) laptops, sixty (60) pieces of UPS and seven (7) projectors were also acquired under this round by the NACP for GAC, PPAG and ADRA (NACP, 2010). An extra two hundred and thirty-nine (239) pieces of Smart-UPS were procured for use in the country to provide emergency power in the event of a failure of the main power or input power source (NACP, 2010). These were in response to the need to enhance reporting and data collation. Ten (10) pieces of air conditioners, ten (10) sets of double room canopies and covers and twenty-three (23) L-shaped tables were procured through the support of the Global Fund

(NACP, 2010). Twenty-five (25) Toyota Pick Up trucks were also purchased under this round of funding to facilitate transportation, monitoring and evaluation of activities and interventions (NACP, 2010). Implementing partners mentioned that this immensely facilitated mobility and the implementation of interventions (Field Interview, 2019). Due to the deplorable state of vehicles and ageing vehicular fleet, the Global Fund again assisted with thirteen (13) Nissan Pickups vehicles in 2017 to support the national and regional HIV and AIDS-related activities (Field Interview, 2019). According to officials of the GHS, this has increased the degree of monitoring and evaluation of related health programmes by facilitating the easy mobility of officials (Field Interview, 2019).

In an interview, Mr Cheabu disclosed that the Global Fund's intervention in 2017 has resulted in the development, installation and implementation of the electronic Logistic Management Information System (e-LMIS) to assist data visibility for decision making. He was quick to add that this has prevented stock outs of commodities and helped in decision making on logistics (Field Interview, 2019). Global Fund assistance was also employed in the implementation of Last-Mile Delivery (LMD) in Greater Accra, Eastern, Volta and Northern regions (Field Interview, 2019). This has facilitated the movement of people, goods and other essential health commodities from various transportation hubs.

Coupled with the digitisation of the records management system of Ghana, the Global Fund grants have been significant by assisting the printing of Report, Requisition, Issue and Receipt Voucher (RRIRV) and Standard Operating Procedures (SOPs) for Logistics Management of Public Health Commodities (GHS, 2018). The Global Fund supports the printing of all ANC registers in the country (Field Interview, 2019). Also, Mr Cheabu acknowledged that the reduction of HIV/AIDS-related illnesses and mortality could not be achieved without proper monitoring of patients and due to this the Global Fund has assisted the MOH in the development and deployment of an off-line HIV e-tracker in ART sites

(Field Interview, 2019). He adds that this seeks to serve about 85% of patients on ART to track HIV patients and to track their progress while on the therapy (Field Interview, 2019). The finding that the Global Fund supports data systems for a wider health systems strengthening is supported by Johnson et al. (2018) who identified data systems as a key area of focus of the Global Fund.

3.4.5 Human resources for Health, Training and Capacity Development

Ghana's health sector, akin to many others in developing countries, is faced with the challenge of health staff, especially in rural areas and hard-to-reach communities. Relatively lower salary, inadequate skills and an insufficient number of health workers are some constraints in this regard. Constraints in human resource coupled with other factors, increase the difficulty in meeting key health objectives. In efforts to advance the health quality of Ghanaians, the Global Fund financial support has been used to facilitate health worker training and capacity development of health staff in several workshops and training programmes. According to the implementing partners, these workshops have equipped trainees with skills and knowledge in the delivery of service interventions like HIV testing, tuberculosis treatment and management as well as testing of suspected malaria cases (Field Interview, 2019). In 2016, the Global Fund grants were used in the training of 359 healthcare workers in HIV Testing and Counseling (HTC) as well as Prevention of Mother-To-Child Transmission (PMTCT) workshops (Field Interview, 2019). Having realized the inadequacy of skilled health workers in treatment regimens and protocols in TB case detection and management, the Global Fund grants financed the training of several health workers and volunteers in TB control and elements of DOTS between 2001 and 2006 as part of the National Strategy in TB Control (2001-2006) to bridge this human resource gap (Field Interview, 2019). This ensured the recruitment of new personnel and training of volunteers as 'treatment supporters' to increase the rates of case detection.

Officials from the Ghana Health Service also indicated that individual workers in the respective disease control programmes have been recruited by the Global Fund and are on the payroll of the Global Fund. In an interview, Dr Addo elaborated that “logistics and data officers of the NACP across the ten (10) regions are supported by the Global Fund” (Field Interview, 2019). Officials of the GHS also revealed that the Global Fund pays the salaries of all monitoring and evaluation officers in the ten regions of their respective disease control programmes (Field Interview, 2019). Mr Afutu also asserted that “100 task-shifting officers are supported by the Global Fund to assist in the screening of all OPD attendants for possible TB cases” (Field Interview, 2019). He further added that “the Global Fund finances the wages of some biological scientists or laboratory technicians who work in various hospitals across the country” (Field Interview, 2019). He quickly added that “these persons do not work only in Global Fund related activities but also perform other responsibilities assigned them within the health facility and region” (Field Interview, 2019). Officials of the GHS acknowledge that these measures have played significant roles in augmenting the health workforce to monitor and supervise various Global Fund activities and other health interventions adequately.

In complementing efforts of the government to achieve universal health coverage, diagnosis, treatment and tracking of malaria cases, the Global Fund has been supportive in Home-Based Care (HBC). As at the end of 2012, eighty-three (83) districts spread across six regions in the country were implementing HBC under the support of the Global Fund (MOH, 2013). To further build the capacity of HBC personnel, Global Fund financed the training of an approximate 11,633 Community-Based Agents (CBAs) and 2,303 Community Health Officers (CHOs) for HBC activities in six (6) regions (MOH, 2013). By the end of 2013, the Global Fund together with other donor partners and the government of Ghana surpassed the national target of the total number of districts implementing HBC by supporting the

implementation of HBC in 133 districts above the national target of 123 (MOH, 2013). In essence, Home-Based care reached several thousand people in 133 districts.

Between June and October 2015, the Global Fund, together with the President's Malaria Initiative (PMI) provided financial support for the fieldwork in the Insecticide Resistance Monitoring (IRM) survey conducted in twenty (20) sentinel sites. A total of 28 people were trained on the SOPs with others employed for larval collections (NMCP, 2016). This helped in the detection of insecticides that were very effective and those that were not effective in the sampled zones. For example, the survey led to the detection of Pyrethroid resistance in all 20 sentinel sites surveyed (NMCP, 2016). This informed the type of insecticides to employ depending on the country zones. In terms of contribution to human resources for health, these activities confirm the arguments of Vujicic et al., (2012) and Brugha et al., (2010) who highlighted how Global Fund contributes massively to HRH-related projects.

3.4.6 Empowering Civil Society and Addressing Human rights barriers to Health Care

Promoting stakeholder involvement is one prime area that the Global Fund also supports in its programmes. Mr Cheabu, in an interview, indicated that “The Global Fund recognises health as a right entitled to human, and thus nothing should inhibit access to health interventions” (Field Interview, 2019).

The Ghana-CCM of the Global Fund assessment of HIV/AIDS prevalence in Ghana using the 2014 GDHS report identified 17.5%, 11.1% and 2.3% as prevalence rates among key populations namely MSM, FSW and prison inmates respectively. Between January 2015 and December 2017, the Global Fund financed Pro-Link Ghana in a Global Fund/ADRA/ALCO/NFMI project aimed at reducing HIV infections and mortality among key populations in the Greater Accra, Volta and some parts of the Western regions of Ghana. Mobile HIV testing services, SBCC activities, condom promotion, stigma reduction in FSW

communities and health centres, referrals for STIs/HIV services and services from disease intervention specialists were integral components of the project. The project was carried out in the following places; Accra Metropolitan Assembly, La Nkwantanang, Lekma, Ayawaso West, Ga East, Aflao, Kadjebi and ALCO-Abidjan Lagos Corridor(Aflao-Elubo). An estimated 11,425 FSWs were reached with these interventions, and over 5,436,417 pieces of condoms were distributed and sold to FSWs from over 50 established condom outlets (Pro-Link, 2018). 60 FSWs were also trained as peer educators to assist in the sensitisation of other people on STIs (Pro-Link, 2018). Nine thousand four hundred eighty-two (9482 persons in all are recorded to have had access to HIV testing and over 500 FSWs having benefitted from HIV/STI services from four (4) Drop-In-Centers (DICs) that were established (Pro-Link, 2018). With regards to stigma reduction programmes, 289 health personnel and 1277 persons were reached at health facilities and FSW communities respectively (Pro-Link, 2018).72 HIV positive Key populations were also put into continuum care and treatment (Pro-Link, 2018).

In 2009, the Global Fund aided Adventist Development and Relief Agency (ADRA) Ghana to scale up HIV/AIDS prevention activities and reduce the incidents of new HIV infections. The ADRA Ghana/ Global Fund for HIV/AIDS Round 8 program was necessary to address the gaps in the national response that hindered the success of HIV interventions. A superficial understanding of HIV in sections of the populace, insufficient targeting of key populations, poor migration of people from general knowledge and risk consciousness to real conduct were affecting the successes of HIV measures. Alongside was the slow integration of sexual reproductive health and HIV/AIDS and inadequate community and institutional capacity to rapid scale-up comprehensive HIV services (MIHOSO International, 2017). Under the support of the Global Fund, ADRA Ghana trained in collaboration with seven (7) sub-recipients 150 Community-Based Organizations (CBOs) with six hundred and seventeen (617) facilitators to conduct HIV stigma reduction activities among targeted groups (CCM Ghana,

2019b). In the Eastern and Central regions, 170 PLHIV were also trained under the support of the Global Fund as ‘Models of Hope’ to offer services in their regions (CCM Ghana, 2019b). Phase II of this project saw the implementation of HIV prevention programs with FSWs in Greater Accra, Eastern, Volta and Ashanti regions as the target population. As a sub-recipient in phase 1, MIHOSO International under the support of the Global Fund also reached 875,002 people with HIV stigma and discrimination in 17 districts across Ashanti, Northern, Brong Ahafo, Upper West and Upper East regions by supporting forty-one (41) CBOs and NGOs (MIHOSO International, 2017). A further 4,500,000 condoms were sold coupled with additional testing of 5,350 people. HIV positive persons were later referred to the Ghana Health Service for health care, support and antiretroviral therapy (MIHOSO International, 2017). This ultimately declined mortality in over 137,000 communities of the districts reached with the HIV programs.

The Global Fund considers prison inmates as key populations and upon assessment indicated that they tend to have a higher HIV prevalence than the national average in Ghana. In an interview with Mr Kojo Asamoah Boateng, Monitoring and Evaluation Manager at Planned Parenthood Association (PPAG) of Ghana, he indicated that the PPAG was selected as a recipient of the Global Fund grants in 2009 to provide various services aimed at the reduction of new infections and deaths among incarcerated populations in six (6) prisons in Ghana (Field Interview, 2019). Nsawam Medium Security Prison, Ankafu Maximum Prison, Senior Correctional Center, Manhyia Local Prison, Kumasi Central Prison and Amanfrom Camp Prison were the selected prisons according to him for the interventions carried out between January 2010 and December 2011. He added that the PPAG trained peer educators in these penitentiaries to reach inmates with STI and HIV/AIDS prevention messages within this period (Field Interview, 2019). He quickly added that PPAG also embarked on HIV testing and counselling services and assisted with the treatment, care and support of inmates that

were infected with HIV and other Sexually Transmitted Infections (STIs) (Field Interview, 2019). Between 2012 and 2015, the PPAG with an estimated US\$ 3,137,859 from the Global Fund expanded services to thirty-five (35) prisons in the country with the exception of Wa Central Prison, Gambaga Local Prison, Bawku Local Prison, Kete Krachi Local Prison, Tarkwa Local Prison, Ekuasi Camp Prison, Hiawa Camp Prison and Forifori Camp Prison (Field Interview, 2019). To further support the expansion of services, Mr Boateng indicated that the Global Fund financed PPAG to extend the health services to all forty-three (43) prisons in Ghana with the objective of reducing new infections in women, men, children and neonates between 2015 and 2017 (Field Interview, 2019). Activities like drama performances, film shows, conducting peer education, distribution of personal hygiene kits like toothpaste, toothbrushes, shaving sticks and provision of informative materials on HIV/AIDS, STIs and TB were among interventions carried out in the prisons (Field Interview). He further mentioned that in 2016, 224 inmates comprised of 192 males and 32 females were tested positive for HIV following support from the Global Fund in the execution of TB screening and HIV testing services in the prisons (Field Interview, 2019). Together with those with presumptive tuberculosis, these patients were referred to various hospitals for medication and further medical evaluation. The official added that 14,285 inmates were made aware of their status after undergoing HIV testing with 13,390 being educated on HIV prevention measures (Field Interview, 2019). The official of the PPAG asserted that the intervention of the PPAG according to their assessment resulted in a 22% decline of HIV and TB infections in the prisons (Field Interview, 2019). In addition, individual lifestyles that were risky, like the sharing of sharp unsterilised instruments had also seen sharp declines (Field Interview, 2019).

As part of efforts to address human rights barriers to health services, WAPCAS has been selected as a PR for the Global Fund NFM II (2018-2020) to implement interventions aimed at reducing new HIV infections and AIDS-related mortality. These measures are carried out

through the provision of an exhaustive package of care to PLHIV with key populations and pregnant women inclusive. WAPCAS is, therefore, collaborating with relevant actors such as Commission on Human Rights and Administrative Justice (CHRAJ), Ghana Police, amongst others to play diverse significant roles in the quest to improve health and social outcome of beneficiaries. Under this, the key population intervention programme is currently being implemented in twenty (20) districts across five (5) regions in the country with FSW and MSM as primary target beneficiaries (WAPCAS, 2018). This project targets an annual reach of 17,615 FSW and 6,992 MSM with services like HIV testing services, diagnosis and treatment of STIs, addressing stigma and violence as well as community empowerment for the targeted key population (WAPCAS, 2018). In addressing human rights barriers, 20 key population intervention districts and seven major health facilities are targeted across six regions for activities like reducing harmful gender norms and violence against female, sensitisation of lawmakers and law enforcement agents as well as facilitating legal literacy amongst beneficiaries to know their rights (WAPCAS, 2018). These contributions of the Global Fund in empowering civil society groups and further addressing human rights barrier challenges is also shared by Biesma et al., (2009).

3.4.7 Maternal and child health

Maternal and child health care remains primary health concerns in Ghana and an integral component of the Global Fund-supported interventions. Global Fund-sponsored interventions also include treatment, care and support services directed at mothers, their infants and family since they fall under vulnerable groups(Field Interview, 2019).

In 2013, the Global Fund endorsed the use of its grant not only for the integrated community case management (iCCM) of malaria but also to train community health workers, monitor and evaluate community case management of non-malarial childhood illnesses like diarrhoea,

pneumonia and malnutrition. This ensured the scale-up of iCCM services from four(4) regions to all ten (10) regions between 2014 and 2017 (Amahson, Morgan, & MCSP, 2015).

Akin to the Sahel region, the northern part of Ghana records higher levels of child morbidity and mortality from malaria during the rainy season. In view of this, the NMCP partnered with the Global Fund, USAID, UK Department for International Development (DFID), UNICEF, among other partners to launch the Seasonal Malaria Chemoprevention (SMC) programme in 2014 targeted at children (Field Interview, 2019). This involves the administration of antimalarial medicines, particularly Sulphadoxine Pyrimethamine and Amodiquine (SP+AQ) during the malaria high transmission season to prevent malaria episodes (Field Interview, 2019). In four rounds of SMC, the Global Fund supported the implementation of this malaria prevention measure for children aged 3-59 months during the rainy season in 2015 in the Upper West Region of Ghana. By exceeding the regional coverage target of 80% of dosing eligible children through records of 91.6%, 96.6%, 93.3% and 94.5% respectively in the four rounds, the SMC reduced malaria-related illness through the maintenance of therapeutic antimalarial drug concentrations in the blood of over 130,000 children across every community in the region (Field Interview, 2019).

In an interview conducted with Dr Addo, he revealed that Global Fund has assisted in the reduction of mother-to-child transmission to ensure that children are born free of HIV. To facilitate PMTC services, he indicated that the Global Fund grants had assisted the NACP in training service providers for PTMC services across all regions in Ghana. In 2017, the Global Fund sponsored the training of three hundred and fifty-nine (359) healthcare workers out of 445 healthcare providers with no formal training in PMTCT in the Greater Accra, Ashanti Upper East and Upper West regions (NACP, 2018). Following this, about 820,191 pregnant women became aware of their HIV serostatus with a further provision of post-test and

continuous counselling (NACP, 2018). Through support from the Global Fund in collaboration with the NACP and other donor partners, an estimated 702,381 pregnant women out of 11,32,332 targeted expected pregnant women became informed of their serostatus through testing thereby reaching 77% coverage of the Annual Global Fund Performance Framework target of 914,357 (NACP, 2016). Assistance from the Global Fund also yielded 53% of HIV positively tested pregnant women having access to treatment and ARV (NACP, 2016). Dr Addo recognises that this has had a massive impact on preventing transmission of HIV infection to unborn children.

3.4.8 Advocacy, Health Education and Awareness Creation Programmes

Interviews conducted with CCM and various implementing partners revealed that, in their scheme of activities, they have identified that low educational level, poor attitudes and lack of awareness constitute some of the reasons why primary health cases are recorded in several health facilities (Field Interview, 2019). Awareness programs and health education are therefore incorporated in supported interventions and programs as a means of educating people on how to safeguard and promote their health status. Implementing partners indicate that SBCC activities are mostly included in the Global Fund-sponsored programmes grants to sensitise various communities on various positive health practices. The use of posters, video shows, peer education, community public announcement systems and radio serial drama are utilised to educate the general public on HIV/AIDS and STIs, the essence of sleeping under treated bed nets in the country and largely in the rural areas (Field Interview). In 2015 for instance, Mr Frimpong and Mr Cheabu mentioned that through assistance from the Global Fund and other health partners, the NMCP trained and supported a total of 61 NGOs to conduct SBCC activities across various communities with additional 10,538 radio spots and 538 TV spots aired across various parts of the country. The officials added that the Western,

Brong Ahafo, Ashanti and Central regions were huge beneficiaries of composed jingles on the LLINs distribution campaign in the same year. Furthermore, Mr Frimpong reiterated that “In the distribution of supported interventions like distribution of nets, we urge families to hang and use their treated nets regularly and to repair them when torn” (Field Interview, 2019). The officials also noted that educational programmes are incorporated in SMC. Mr Afutu added that TB adverts are mostly displayed in newspapers as a way of reaching the general population on the need to visit hospitals or appropriate health facilities when coughing and other symptoms of TB in individual persist over days. The CCM concurred but quickly indicated that major television and radio adverts have declined in the past few years. He added that NGOs are now the medium of communal education programmes and are mostly the preferred partners to reaching local communities. This was confirmed by the officials of the Ghana Health Service.

3.5 Global Fund Interaction with State Institutions

The study revealed that the Global Fund cooperates effectively with state institutions in and outside the health sector. Mr Benjamin Spears Cheabu, Program Officer for Oversight and Communication of the CCM-Ghana of the Global Fund disclosed in an interview that, in the implementation of interventions, interactions with state institutions are very collaborative and effective from the national level down to the district level. He added that this engagement is very effective owing to the composition of the Ghana-CCM, which comprises eight (8) public sector members. These include two members from the Ministry of Health/Ghana Health Service with one each from Ghana AIDS Commission, Ministry for Local Government, Ministry for Gender, Children and Social Protection, Ministry of Finance and Economic Planning and the Commission on Human Rights and Administrative Justice (CHRAJ).

Officials of the Ghana Health Service also alluded to this fact. Mr Cheabu further added that the Global Fund also collaborates effectively with other GHIs and non-state actors in support of interventions in Ghana (Field Interview, 2019). He added that the democratic nature of the Ghanaian society has made it feasible for the Global Fund to undertake several interventions aimed at ending AIDS, TB and malaria in Ghana (Field Interview, 2019). He added that “Ghana shows the world that public and private partners can work together to deliver international assistance from donors and to deliver results on the ground in developing countries” (Field Interview, 2019).

In terms of health policy, Mr Cheabu emphasised that the “Global Fund does not develop health policies for Ghana” (Field Interview, 2019). Officials from the Ghana Health Service concurred to this. Mr Afutu of the NTP highlighted, however, that “the Global Fund may suggest policies or make recommendations based on successfully experimented interventions elsewhere” (Field Interview, 2019). Dr Addo also indicated that the Global Fund contributes to health policies saying that “if the Global Fund recommends viral load to monitor HIV client other than CD4, it has a big impact and ignoring it will allow the Global Fund to stop giving money and this indirectly contributes to health policy” (Field Interview, 2019). He added that the “WHO recommendations are based on existing realities” (Field Interview, 2019). Mr James Frimpong of the NMCP said that “the Global Fund will only offer grants when policies align with WHO recommended guidelines and protocols” (Field Interview, 2019). This implies that though the Global Fund does not develop in health policies, it indirectly contributes to policies since policies have to be aligned with internationally accepted guidelines and health protocols to be a recipient of assistance.

3.6 The Global Fund and Sustainable Development Goals (SDGs)

The SDGs present an opportunity to enhance the quality of human health from a multidimensional approach through an integrated strategy amongst partners from international agencies to national ministries and local communities, including the private sector and NGOs. These global goals were built on the successes of the Millennium Development Goals (MDGs). Through the offering of financial supports to PLHIV as part of interventions hitherto 2011, the Global Fund could be commended as supportive of MDG 1, which aimed at eradicating extreme poverty and hunger. It is also evident that the Global Fund activities in Ghana are aligned with the following SDGs; Goal 3: good health and well-being and to some extent, Goal 5- gender equality. Good health and quality well-being in Goal 3 is being addressed in the programmes supported by the Global Fund. The supports in interventions that seek to combat the three diseases are directed towards improving good health and advancing quality well-being. It is also evident that the Global Fund's contributions to civil society organisations to address all forms of human rights barriers (including ending the gender discrimination that fuels diseases like HIV) to quality health services also seek to achieve Goals 5 of the SDGs. Officials from the GHS articulated that the Global Fund remains a principal stakeholder in the country's agenda to attain the SDGs by 2030.

3.7 Challenges/Problems Associated with Global Fund Activities in

Ghana

The Global Fund is involved in several health activities that are geared towards advancing quality health care in Ghana. Notwithstanding the numerous efforts, the operations of the

Global Fund are not without some barriers as the organisation encounters various obstacles that hinder the efforts in promoting quality health care of residents in the country.

The CCM official mentioned that inadequate skilled personnel and volunteers to carry out certain supported interventions affect the services of the Global Fund in the country. He added that some interventions demand that the Global Fund facilitates the training of personnel sometimes through the various implementing partners to be in competent positions to promote effectiveness. These programmes that build the capacity sometimes delay and affect timing for the implementation of interventions. This is also confirmed by officials of the disease control programmes of the Ghana Health Service. Closely related to this is the migration of trained health staff to other departments or in pursuit of higher academic heights. Most of the health personnel who are trained in particular services like HIV testing in Global Fund-supported programmes after acquiring the requisite skills are transferred from the ART section to other departments like the OPD or other health facilities where such acquired skills are not needed (Field Interview, 2019).

Occasional conflicts of interests also emerge as a challenge that hinders Global Fund-supported programmes in Ghana. According to the official of the CCM, the diverse health needs of the Ministry of Health (MOH) and Ghana Health Service (GHS) sometimes impede the extent of support of the Global Fund towards advancing health in the priority areas in the country. He asserted that the Global Fund primarily seeks to sponsor and assist initiatives, policies and health programmes of the MOH and there are events or situations where what the Global Fund might recognise as priority is not considered by the GHS or MOH. This is further confirmed by officials of the GHS. The NACP official indicated in an interview that the “NACP might ideally want to embark on interventions with a targeted universal coverage, but Global Fund assistance may limit the NACP to focus only on relatively high burden

regions” (Field Interview, 2019). The official of the NTP alluded to this saying that “the Global Fund asks you to look at your burden and find the regions in greater need and allocate money for implementation” (Field Interview, 2019). In this regard, the Global Fund financing may not support a nation-wide scale-up, and this affects preventions and further increases new infections (Field Interview, 2019).

The CCM Official also mentioned that certain religious beliefs, coupled with poor acceptance of Global Fund-supported interventions, constitute a barrier in the efforts of the Global Fund to improve on the quality of health. He noted that the poor attitude of people in several communities to adopt practices and interventions to help prevent certain diseases are disregarded largely because relatives of such families had not suffered mortalities arising from such conditions. This makes them reluctant to adopt specific positive behavioural changes to prevent diseases. With regards to HIV and other sexually transmitted infections, he asserted that despite the Global Fund intervention programmes advocating for people to use condoms which are recognised as an easy way of prevention of sexually transmitted infections, some blatantly disregarded the advice saying that they enjoyed the sex much better without condoms. He added that some HIV and TB patients refuse treatments and opt to sleep in prayer camps and shrines, hoping for divine interventions and healing. He further added that even though the Global Fund has distributed treated bed nets to prevent malaria, most people either use it as a fence for their vegetation or refuse to sleep in it citing discomfort as reasons. The official of the NMCP attested to this lamenting that “it makes the control of the epidemic extremely difficult.”

The CCM official also expressed the difficulty and inability of the government to meet the commitments of the Global Fund as another challenge of the Global Fund operation in Ghana. The Global Fund’s strategy to ensure transition and sustainability has introduced the

counterpart funding mechanism to allow countries to meet a certain quota in scaling up interventions. According to the CCM official, the Global Fund grants in recent times are disbursed based on the government's commitment to making agreed quota. He mentioned that the government had found difficulty in fulfilling her obligation resulting in the decline of disbursements and withdrawal of funds required to scale up interventions. He emphasised that this has consequently affected the levels of responses. For example, he mentioned that the Global Fund withdrew some funds following the inability of the Ghana government to satisfy her condition of procuring condoms in 2017 (Field Interview, 2019). The NACP official also confirmed this with both asserting that it affected the implementation of programmes. The NTP official lamented that "it sometimes sounds like coercion of the government to forcefully make unbudgeted contributions to meet the demand requirements of the Global Fund for grants" (Field Interview, 2019). The CCM official also expressed the worry of integrating absorbed health workers from Global Fund payroll to the government's payroll. He lamented that with a comparatively higher salary, this would create discomfort with Global Fund's transitional plans to take off certain health staff from its payroll from 2020.

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CHAPTER FOUR

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

4.0 Introduction

This chapter focuses on the summary of findings, conclusion and recommendations of the study.

4.1 Summary of Findings

The study sought to present the contribution of the Global Fund to the health sector of Ghana, establish the beneficiaries of the interventions of the Global Fund and finally examine the challenges and problems associated with activities of the Global Fund in Ghana. The researcher used extensive secondary data interspersed with primary data in the form of interview transcripts from officials from the CCM Ghana of the Global Fund, National Malaria Control Programme, National AIDS/STI Control Programme, National Tuberculosis Control Programme and Planned Parenthood Association of Ghana (PPAG).

It was noted from the study that inadequate health financing, insufficient health personnel, inadequate health facilities, difficulty in access to essential medicines, and maternal and child issues constitute some of the primary health care challenges in Ghana. These challenges provide room for several international organisations to assist in the provision of health care to complement the efforts of Ghana to achieve universal health care for the Ghanaian populace.

Under the objective of examining the contribution of the Global Fund to the health sector of Ghana, the study revealed that the Global Fund assists in the reduction of disease burden connected to priority diseases (malaria, tuberculosis and HIV/AIDS). This has been done

through the support of programmes like Indoor Residual Spraying via AngloGold Ashanti Malaria Control Programme to scale up spraying of structures in the Upper West and Upper East regions of Ghana and Obuasi. The Global Fund also assists in the provision of antiretroviral drugs to cater for HIV patients as well as reducing the cost of TB treatment through the 'enablers package'. The study disclosed that the Global Fund has distributed treated bed nets, condoms and made financial supports to PLHIV all aimed at advancing quality of life.

The study also established that the Global Fund has contributed to the establishment and refurbishment of certain health facilities, offices and centres in Ghana. The study revealed that the Global Fund no longer supports large scale infrastructure projects. Another finding was that the Global Fund had assisted immensely in the procurement of vital health products like ARVs and antimalarial drugs as well as laboratory equipment to improve the overall health system. In addition to that, the study highlighted that the Global Fund had procured logistics like computers and vehicles and has contributed vastly to the data and records system of the health sector through the installation and implementation of the e-LMIS to aid data visibility for decision making.

To add to the above, the research conducted found out that facilitating human resources are also integral components of Global Fund activities through recruitment, training, capacity building and payments of salaries of health workers all geared towards advancing quality human lives.

Again, the Global Fund has strengthened civil societies in extending services to stigmatised and discriminated societies, groups and persons. The study established that the Global Fund has contributed towards maternal and child health improvement through the testing of pregnant women to be aware of their serostatus, free treated bed net distribution, provision of

SMC services and assistance in PMTCT to prevent malaria and reduce the transmission of HIV from parents to unborn children. The study further established that the Global Fund supports health education and awareness creation programmes.

The study sought to establish the beneficiaries of the interventions of the Global Fund-supported health programmes. The study identified that Global Fund interventions are directed towards the entire population including key populations and vulnerable groups like Men who Sleep with Men (MSW), Female Sex Workers (FSW), persons living with the disease, children under five years, pregnant women and indigenous populations in endemic areas.

The study conducted noted that the Global Fund does not develop health policies for the country but may suggest contributions and make recommendations towards health policies. In this regard, the study realised that the Global Fund supports programmes that align with WHO guidelines and internationally accepted standards.

Amongst various challenges and problems, the study identified that inadequate skilled personnel, occasional conflicts of interest, poor human attitudes and religious beliefs, sustainability of health programmes and interventions and inability of government to meet conditions of grants to be significant concerns and challenges associated with the activities of the Global Fund's operation in the health sector.

4.2 Conclusion

The study has shown that the Global Fund is playing a significant role in the health sector of the country. Though the activities of the Global Fund have been accompanied by certain hindrances, there is enough evidence demonstrating the positive role of the Global Fund in

advancing quality health care in its desire to end epidemics of AIDS, malaria and tuberculosis in Ghana. The government thus recognises the Global Fund as a vital donor partner and an instrumental figure in the advancement of quality health care in the country and therefore liaise with the Global Fund to continually provide grants to assist in reducing the priority disease burden in the country and improving the overall health system. Accordingly, the Ghana-Global Fund relations have been mainly fruitful to Ghana and should be maintained in the strive to promote healthy development in the country.

4.3 Recommendations

Based on the research findings, the following recommendations are made:

- ✓ The government of Ghana should increase budgetary allocation to the health sector to be able to meet the conditions of counterpart funding of the Global Fund. This will increase the scale-up of interventions to nationwide areas and also ensure the sustainability of programmes in the country.
- ✓ The Global Fund should further enhance the capacity of personnel who carry out interventions either from government agencies or outside the government sector. The government should also assist in this regard through collaborative efforts to improve the skills and build the capacity of health personnel, especially at the community level. Volunteers should be gradually and effectively integrated into such health interventions.
- ✓ Health worker transfers should be moderate and well regulated. The study suggests that the government should transfer health personnel only when their presence is of high priority to reduce the placement of specially trained health workers to areas where their services are underutilised.

- ✓ The government and the Global Fund should increase dialogue to avoid the occurrence of occasional conflicts of interest. Efforts should be made to properly communicate health policies and targets to align perfectly with the priorities of both the government and the Global Fund.
- ✓ The Global Fund and the government are encouraged to embark on more Social Behaviour Change Communication (SBCC) activities to create awareness and educate people on various health issues and the need to preserve one's health status. These activities are necessary to disabuse the minds of religious and cultural falsehoods and myths associated with health interventions. Various media platforms like the radio, television and newspapers should be used to educate the populace. The influence of traditional, community and religious leaders should be capitalised on to reach out and inform people on positive health practices and behaviours.
- ✓ The study will recommend that the environmental issues that constitute critical constraints to health in the country be addressed vigorously by all persons and agencies under strict government leadership in this regard. Appropriate sanitation agencies and authorities should be empowered to apply stringent sanctions backed by law for individuals who flout directives relating to proper sanitation. Unauthorised structures and buildings that breed slums and other unsanitary conditions should be met with aggressive actions as they pose substantial health threats.

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D. Interviews

- Interview with Mr James Frimpong, Deputy Programme Manager, NMCP Ghana (5th July 2019)
- Interview with Dr Stephen Ayisi Addo, Programme Manager, NACP Ghana (2nd July 2019)
- Interview with Mr Felix Kwami Afutu, Monitoring and Evaluation officer, NTP Ghana (11th July 2019)
- Interview with Mr Benjamin Spears N. Cheabu, Oversight and Communication Program Officer, Ghana-CCM (18th July 2019)
- Interview with Mr Kojo Asamoah Boateng, Monitoring and Evaluation Manager, PPAG (25th July 2019)

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