

# Hypertension and Diabetes Management: a Policy Perspective from Ghana

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April 9, 2018

## Abstract

**Purpose** – The purpose of this paper is to examine how Ghana is managing and responding to the challenge of hypertension and diabetes.

**Design/methodology/approach** - Data collection involved individual interviews with policy-makers, providers, payers, health managers, and participants from patient and advocacy groups at district and national levels; and focus group discussions with hypertensive and diabetic patients. This was supported by analysis of documentation detailing activities that have been undertaken in response to the management of hypertension and diabetes in Ghana.

**Findings** - The Ghanaian health sector has drafted overarching policies and strategies on management of diabetes, hypertension, other non-communicable diseases, tobacco, alcohol, and nutrition-related issues. Availability of funds is the main barrier to the implementation of policies. Besides, the response of the health sector to address the problems of hypertension and diabetes is focused more on clinical management than prevention; while the structures and processes to manage diabetes and hypertension are available at all levels of service delivery, more needs to be done on preventive aspects.

**Originality/Value** - This is the first study to combine individual interviews with key stakeholders, focus groups with patients, and document analysis to review policy implementation on the management of hypertension and diabetes in Ghana. The authors believe that the evidence from this research will help inform future policy initiatives on hypertension and diabetes in Ghana.

## Introduction

In Ghana, hypertension and diabetes have become significant public health problems. Evidence from cross-sectional studies conducted in urban areas reveals prevalence levels of hypertension that ranges between 28% and 40% (Amoah, 2003; Cappuccio *et al.* , 2004; Agyemang, 2006; Hill *et al.* , 2007). In rural areas, prevalence figures that go as high as 35% have been recorded (Cook-Huyne *et al.* , 2012). According to the Ministry of Health (MOH) and Ghana Health Service (GHS), between 1990 and 2010, newly diagnosed cases of ambulatory hypertension in public and mission health facilities in Ghana (excluding teaching hospitals) increased more than ten times from 60,000 cases to about 700,000 cases (MOH/GHS, 2014). As the third most common newly-diagnosed outpatient disease among adults in Ghana, hypertension has ranked in the top five outpatient diseases for more than fifteen years (MOH/GHS, 2014). Hypertension has therefore been declared as an epidemic in Ghana and stakeholders have called for urgent action (Bosu, 2010).

Similarly, the prevalence of diabetes has increased from 2.0% in the early 1960s (Dodu & De Heer, 1964)

to 6.4% in the early 2000s (Amoah *et al.* , 2002). In the urban areas, a prevalence range of 6.0% to 9.5% has been recorded (Hill *et al.* , 2007; Owiredun *et al.* , 2009). In 2012, the Ghana News Agency reported that about four million people may be affected with Type I and type II diabetes mellitus in Ghana; a figure which represented about 20% of the Ghanaian population at the time (Ghana News Agency, 2012). In health facilities, reported newly diagnosed cases of diabetes increased five-fold from 25,000 cases to about 120,000 cases between 2005 and 2009 (MOH, 2012). Diabetes affects the active population group in Ghana as 58% of cases of diabetes were persons between the ages of 20 and 59 years in 2011 (MOH, 2012).

Despite this alarming trend, policy-makers have paid more attention to managing communicable diseases with interest in managing hypertension and diabetes only emerging recently. Aikins (2007), for example, questioned the logic behind making HIV/AIDS with a national prevalence of 3.2% a Millennium Development Goal target while hypertension, with a prevalence of 28.7% remained neglected.

Evidence is limited in Ghana as epidemiological studies and health services research on hypertension and diabetes have been in the form of cross-sectional surveys of isolated populations and pockets. Both planning and implementation of policies, therefore, are likely to have limited impact in the absence of epidemiological data based on a nationally representative sample. Besides, as Robles (2004) has argued, the impact of health policies and their formulation, with respect to non-communicable diseases (NCDs) such as hypertension and diabetes, are influenced by the process by which such policies are made, implemented, and how various stakeholders respond to the challenges. This may also be a limitation in Ghana. The aim of this paper is to conduct a case study at national and district levels to generate empirical data on the management of hypertension and diabetes in Ghana.

This goal will be achieved by meeting the following two objectives: first, examine how policies for managing hypertension and diabetes are made and implemented in Ghana; second, examine the response to the challenge of diabetes and hypertension from the perspective of key stakeholders in the Ghanaian health sector.

The rest of the paper is organized as follows: section two explains the conceptual underpinnings of the study (health policy, policy formulation and policy implementation); section three provides a brief explanation of the context of policy-making in Ghana; section four describes the methods for the study; section five presents the results of the study; section six discusses the results in the light of existing literature; and, section seven concludes and draws out policy lessons from the study.

## **Conceptual underpinnings: Health policy, policy formulation, and policy implementation**

Managing hypertension and diabetes calls for the adoption of appropriate health policies. Health policy, an aspect of public policy, is used to denote “courses of action that affect that set of institutions, organizations, services and funding arrangements of the health care system in a country” (Palmer & Short, 1994 p.23). Health policies therefore encapsulate actions or desired actions taken by public, private or voluntary organizations that impinge on the health of a population. According to Palmer and Short (1994), health policy differs from other policies because of the distinctive role and influence of the medical profession, the complex nature of providing health care, and the difficulty in differentiating good health services from poor services. These features make health policy a crucial aspect of the public policy of a state. To understand health policy though, regard should be given to understanding social and economic policy since clear linkages exist and forms an important part in fashioning a robust health policy and system.

Formulation of health policies is an important consideration in the management of disease conditions. However, policy formulation has been conceived as a “highly diffuse, and complex, process which varies by case...as nuances in particular instances can be grasped only through empirical case studies” (Howlett, Ramesh, 1995 p.123). However, no matter how complex the process might be, the basic conception is that

policy formulation starts when governments realize a need and think of a course of action to address that need by exploring various options. Consequently, policy formulation involves elimination of policy options, until one or only a few options amongst which policy makers make their final decision (Howlett and Ramesh, 1995 p.123).

In addressing health needs, options selected must be implemented in order to realize the benefits of such decisions. Translating health programs into practice (implementation) is a complex phenomenon. Key issues to be taken into account include the nature of the health problem and the context, and the organization of the administrative mechanism in charge of the task of implementation (Howlett and Ramesh, 1995). Implementation of health policies may be influenced by socio-economic conditions, political circumstances, technological issues as well as the administrative apparatus (Sabatier and Mazmanian, 1980; Brownson *et al* ., 2003).

## **The context of health policy formulation and implementation in Ghana**

In the 1980s, Ghana began work on a general health sector reform, key aspect of this being decentralization of health systems. In Sakyi's (2008) opinion, the decentralization process was evident in the rearrangement of the internal systems of the health sector. The reform highlighted de-bureaucratization, autonomization, agencification, and layering as key components to break the centralized tendencies that characterized the governmental apparatus (Sakyi, 2008).

Bossert *et al* . (2000) asserts that decentralization specifically started in 1988 following the World Health Organization (WHO) supported "strengthening District Health Systems" Project which kick-started a comprehensive program of delegation and administrative decentralization in the Ghana health system. However, it was not until 1997 that the current policy arrangement underpinned by the decentralization process gained root. The passage of the Ghana Health Service and Teaching Hospitals Act, 1996 (Act 525), was integral to this process. This Act established the Ghana Health Service (GHS) to take over the performance of certain functions from the Ministry of Health (MOH). Section 3 of the Act empowers the GHS to implement approved national policies for health delivery in the country. As part of the decentralization scheme, the primary responsibilities of the MOH were the formulation of policies and the determination of priorities for the health sector while the GHS was to take responsibility for the development of implementation guidelines for the regions and districts of the country (Bossert *et al* ., 2000). Thus, the MOH, which prior to the decentralization policy was responsible for both policy formulation and implementation, delegated powers and functions to the newly established GHS, which was now in charge of implementation of policies formulated by the MOH. This arrangement underpins the formulation and implementation of all health policies in Ghana including policies for managing diabetes and hypertension.

## **Overview of study areas and data collection methods**

Data were collected at national and district levels. The national level provided the platform for approaching key informants in policy formulation and implementation while the district level, the conduits through which policies are implemented, provided an avenue to explore the experiences of actors on the ground with respect to how Ghana is responding to the challenge of hypertension and diabetes. In order to include providers and patients from both urban and rural settings, two municipalities were selected for this study: Ga South Municipality in the Greater Accra Region and the Effutu Municipality in the Central Region of Ghana.

The Ga South Municipality is part of Accra – the capital city of Ghana – with 90% population living in urban neighbourhoods (Ghana Statistical Service, 2014a). The municipality had a total population of 485,643 in 2010 (Ghana Statistical Service, 2012). Its capital is Weija. In 2010, about 36% of the population were

under the age of 15 and 6.5% were over 60 years (Ghana Statistical service, 2014a). Over 34% of the people working in the Municipality are in the services and sales sector, 23.1% engage in craft and related trade while 9% work in agriculture, fishery and forestry. Close to 90% of the population 11 years and above are literate. Though there are health centres and clinics, the main health facility for general and referral purposes is the Ga South Municipal Hospital.

A second study site was the Efutu Municipality. Efutu is in the Central Region of Ghana and its capital is Winneba (See figure 1). As per 2010 Census, the Municipality had a population of 68,597 (51.2% females) and 33% of the population aged under 15 (Ghana Statistical Service, 2012). Over 80% of the population are literate in a Ghanaian language and English. About 29% are literate in only English; manufacturing contributes 21% of industrial activity in the municipality, 20% retail services, and over 16% fishing (Ghana Statistical Service, 2014b). The largest health facility for general and referral purposes in the Municipality is the Central Regional Hospital.



Figure 1: A map showing the capital of the Effutu Municipality, Winneba

## Data collection and analysis procedure

This is a qualitative study using data from interviews, focus groups and documents.

### *Key informant interviews*

The semi-structured interviews were determined by the issues under investigation-formulating and implementing policies and response to hypertension and diabetes management. Consequently, purposive sampling was used to select participants for the interviews as suggested by Cresswell (2013). Identification of participants for the study was influenced by the objectives of the study and the judgment of the research team.

Selection was based on key stakeholder categories in the formulation and implementation of policies for managing and responding to hypertension and diabetes. Participants were sampled based on the following:

- Personnel in health policy formulation and implementation in Ghana
- Member of a patient group organization
- Payers
- Health providers
- Health managers or administrators, and
- Participants from patient advocacy group

Participants were selected from the following organizations: the MOH, the GHS (both national and district level), The National Diabetes Association (NDA), the

Ghana Medical Association (GMA) and the National Health Insurance Authority (NHIA). An experience level of two years was required for inclusion in the study. In all, 26 participants were interviewed (See Table 1):

Table 1: Summary of key informant interviews

Stakeholder category	Organization	No. of Participants
Policy makers	MOH/GHS	9
Health providers	CRH & GSMH	10
Health managers	CRH & GSMH	2
Advocacy	GMA	2
Patients	NDA	1
Payers	NHIA	2

*CRH = Central Regional Hospital , GSMH = Ga South Municipal Hospital*

Recruitment of participants was supported by the management of these institutions who assisted in identifying suitable participants. Those who were willing to participate were then asked to sign consent forms (one consent form per participant). Interviews lasted between 35 and 65 minutes.

## Focus group discussions

To understand patients' perspectives on Ghana's response to diabetes and hypertension, two separate focus group discussions were conducted. In the Greater Accra Region, diabetes/hypertension clinics involving doctors, nurses and patients are held to educate patients on these diseases. The research team were invited to interact with patients during the weekly-held diabetes/hypertension clinics after making contact with health staff. The team used the opportunity to introduce the study to patients and invited them to voluntarily participate in the study. In the Central Region, because there were no hypertension/diabetes clinics, health staff contacted patients using hospital records and invited them specifically for the focus group discussion. In both cases, patients who agreed to be part of the study signed consent forms and were recruited into the study using a recruitment script that was designed. Each focus group included patients – one focus group included patients who were diagnosed with, and were undergoing treatment for diabetes; and the other group included patients who were diagnosed with and were undergoing treatments for hypertension. Some patients had both diabetes and hypertension and were included in both groups. Each group consisted of nine patients.

## Documents

Data from the following documents were combined with interview and focus group data:

- Ministry of Health policy documents
- Ghana Health Service documents
- Annual reports detailing yearly activities in response to hypertension/diabetes
- Program of work documents
- Municipal reports and documents
- WHO protocols and other documents

## **Data collection**

Approvals for the study were obtained from the University of Canterbury's Human Ethics Committee and the Ghana Health Service Ethics Review Committee. Data collection began on 25th June, 2017 and ended on 7th October, 2017. A semi-structured interview guide was prepared ahead of data collection for interviewing participants who fitted into different stakeholder categories, or who perform different roles even within the same stakeholder group. Thus, a single format interview guide was not used in this study. Interview guides consisted of open-ended questions based on the study objectives. Focus group discussions lasted for about 90 minutes per session. Patients were invited to share their experiences on how their conditions were being managed.

## **Data analysis**

Raw data from the participants were obtained in the form of audio recordings (interviews and focus groups) which were then transcribed verbatim as hand-written pages. Hand-written documents and soft copies of other documents for the study were entered into NVivo 11 software. Data were then coded using NVivo 11 software with nodes being guided by the objectives of the study in the identification of categories and themes. Findings of the study are presented in the form of themes and sub-themes in line with the objectives of the study. Verbatim statements of participants are presented to support key themes and sub-themes that reflect study findings.

## **Findings of the study**

To understand the management of hypertension and diabetes in Ghana, participants were asked questions about;

- how policies for managing hypertension and diabetes are made and implemented in Ghana;
- how stakeholders are responding to the challenge of hypertension and diabetes.

### **How policies/strategies for hypertension and diabetes are made**

#### **How the process starts**

The findings suggest that making policies and strategies for managing hypertension and diabetes involve a series of activities. This starts with the identification of a need. Health services needs for the management of hypertension and diabetes are identified through a yearly assessment exercise. At the end of each year, MOH officials meet with all the 'players' of the health sector to assess the performance of the sector. Through this assessment exercise, the needs are identified. In other instances, hypertension and diabetes needs are identified through business meetings that are held between the MOH and its agencies or development partners.

A respondent who was identified as a policy expert, used the formulation of the NCD Policy which embodies strategies for managing diabetes and hypertension to explain how the hypertension/diabetes needs were identified;

Around that time you could tell that the burden of disease or the epidemiological profile of Ghana was gradually going up with respect to NCDs. And even the Institute of Health Metrics and Evaluation (IHME), some of their projections also looked at Ghana having the NCD burden and current projections from IHME suggest that hypertension and diabetes burden are becoming larger and larger. So clearly, there was the need to do something hence the policy

*Who initiates the process?*

*De jure*, the MOH is expected to initiate and formulate all policies; *de facto*, the Ghana Health Service sometimes starts the policy process. Findings suggest that most of the technical people on policy issues are with the GHS. Another participant, identified as a policy expert from the GHS stated the following:

In actual fact, the MOH is supposed to do this. Fortunately or unfortunately, all the technical people are with the GHS. So the policy reviews and everything originate with the GHS but normally we need to seek approval from the MOH

*Preliminary analysis and agenda-setting*

The identification of needs with respect to hypertension and diabetes is followed by an initial analysis of the hypertension or diabetes challenge. Findings suggest that issues discussed here deal with an understanding of what the challenge is, the extent or degree of the challenge, who is affected and how they are affected, which stakeholders are relevant for the policy, etc. In Ghana, the way hypertension and diabetes needs are identified and analysed tie in with the agenda-setting process. The hypertension and diabetes agenda is usually the outcome of the holistic assessment from which the needs or challenges are determined. The agenda is heavily influenced by the health outcomes and shaped by the initial analyses that are conducted. The agenda could be the way forward for a year or period of years but details the alternatives available and the choices to be made. The agenda when set, known as *aide memoire* in Ghana, is then signed by the MOH and development partners and becomes an actionable document for the health sector and development partners to work with.

After setting the agenda and looking at options in terms of interventions, a concept note is developed and a Core Working Group to look at the day-to-day activities relating to the policy is constituted. This group does a rapid assessment of current policies vis-à-vis the current global, regional, and national contexts, looking at certain directions of the proposed policy. Policy experts therefore have a working document at the back of their minds before meeting stakeholders. A Technical Working Group made up of knowledgeable and experienced people mostly outside the MOH may be constituted to assist in developing the policy. In certain instances, a Steering Committee is constituted with oversight responsibilities over the Technical Committee activities and endorses its work.

*Stakeholder consultation: who is invited and how?*

Policy-makers now try to engage with stakeholders for their contribution to the policy. Stakeholder interviews confirm that all stakeholders concerned with hypertension and diabetes were invited for policy discussions. Asked how they influence the making of diabetes and hypertension policies and how patient views are captured in the policy process, a participant from a patient organization stated;

With policy, we are very active in the process and try to fight for patient interest... Between 2010 and 2012, prices of diabetic products were just escalating so we sat down with the then government...that is, Ministry of Finance and Ghana Revenue Authority. Then we picked seven companies and mandated them to import our products so that when they import, there is a duty waiver and a VAT (tax) waiver. And when we did that, the prices stabilized for four years

On how stakeholders are invited, findings reveal that the traditional way of engaging stakeholders by the MOH/GHS is to conduct a static location meeting and invite all stakeholders together in one place to

deliberate on the working document of the policy. However, policy-makers have realized that this method has not been helpful in the stakeholder engagement process. A respondent explained as follows;

The challenge we have seen over the years is that if you call a stakeholders meeting, the key people that you need to come and make input in the policy do not come. They send some people whose opinions really do not matter. So when you deal with these opinions, this same stakeholders come and complain and do not support certain aspects of the policy

After the stakeholder engagement, a zero draft is produced. A zero draft is “good to go” but policy makers still needs to validate it by consulting an even larger stakeholder group to ensure that what they captured and reported is fully supported by the larger stakeholder group. The document is then circulated to other interested parties after which a draft is presented. Based on the nature of the policy, there could be first, second and sometimes final drafts of the policy. The policy is then endorsed by the Minister and then launched. After launching, the policy document is disseminated to all key stakeholders for them to know the content and create awareness about the policy. This usually takes place at both regional and agency levels.

#### *How are policies implemented?*

The mandate of the MOH ends at policy formulation. By law, policy implementation is for the agencies and especially the GHS. The GHS is responsible for preparing the implementation plan. However, this is a major challenge as a big lacuna is created between formulation and implementation. Participants in the MOH and GHS all see this as a major issue. A participant at the MOH stated;

You know, since the ministry’s mandate ends at formulation, the agencies are then supposed to, you see the word I am using, supposed to, fix the implementation aspect and do the implementation plan and work with it. That is where the gap is, policy and practice. You see, how can the MOH formulate a policy and does not do much in implementation. The implementation drops and there is a bridge and that link is weak

Probing revealed that representatives of the MOH are invited when the implementation plan is being done by the GHS. However, MOH participants believe this is not sufficiently helpful since it takes place outside their jurisdiction and their representatives can only advise on implementation issues. Implementation is therefore seen as a GHS activity by various agencies. The MOH therefore monitors the implementation of the policies. According to participants, the issue here is whether officials have enough data coming out of that implementation to do proper monitoring. Stakeholders involved in this study believe that implementation of hypertension and diabetes policies is a major challenge in Ghana. Policy implementers themselves confirmed to the research team that Ghana is yet to implement its NCD policy. A participant added:

By now we should all be aware and some behavioural changes should have been noticed and we should be seeing some improvement so that at least if the burden is going up at all, the rate would have slowed a bit or may be it would have plateaued and stagnated but the bottom line is that it is still rising. As we speak, 30% of the adult population has one NCD or the other. So what it means is that implementation should be looked at again. It should not be seen as one agency’s headache. It should be seen as a holistic and national issue that all other agencies including the private sector must be involved

Common comments from participants on issues of implementation have been summarized in table 2

Table 2: Key comments on implementation of diabetes and hypertension policies

Key comments	No of participants	% of participants
Implementation of policies must be looked at again	12	46



Key comments	No of participants	% of participants
There is a gap between policy formulation and implementation	8	31
Overemphasis of implementation effort on clinical aspects of policies, not preventive	13	50
Only GHS is saddled with implementation, all agencies must help	8	31
Hypertension/diabetes policies, strategies and action plans are in place, but implementation is a challenge	8	31
Agencies are not resourced enough for effective implementation	15	58
Overemphasis on communicable diseases makes implementation of NCD policies difficult	6	23

*Source: Interview Data*

## Response to the hypertension/diabetes challenge

Findings from interviews, focus groups and documents suggest a number of established and on-going activities in response to the management of hypertension and diabetes. The policy regime for managing hypertension and diabetes has been strengthened. There is an overarching NCD policy as well as NCD strategy (MOH, 2014). Various stakeholders shared their knowledge and experiences on how Ghana is responding to the hypertension and diabetes challenge.

### Policy-makers' viewpoints

Policy-makers believe that the requisite policies are in place for managing diabetes and hypertension in Ghana. To policy-makers, these conditions are a priority as Ghana has ratified various conventions and protocols on NCDs and also, NCD management is an integral part of the medium term plans of the GHS. Apart from the NCD policy and strategy which provides the overall roadmap for diabetes and hypertension management, other policies have also been launched. These include the Tobacco Control Regulations (L.I. 2247) and Smoking Cessation Clinical Guidelines, the National Alcohol Policy, and the Nutrition Policy. The Standard Treatment Guidelines have also been established to guide clinicians in the management of hypertension and diabetes and other diseases.

Apart from major policies on these conditions, policy-makers have instituted the NCD Control Programme within the Disease Control Department of the Ghana Health Service. The programme is a unit responsible for planning, prevention and control of all NCDs in Ghana. Though policy makers (MOH/GHS) admit that there is no established screening program for diabetes and hypertension management in Ghana, what run through policy-makers' responses is the ability to screen and treat at all levels of service delivery. At the basic level of service provision, the Community-Based Health Planning and Services (CHPS), Ghana's primary health care service, is an innovative approach which provides basic diabetes and hypertension care to remote and hard-to-reach locations. Services are run through the referral system, that is, health posts, health centres, clinics, district hospitals, regional hospitals and teaching hospitals. Policy-makers, however,

admit that more needs to be done on implementing preventive interventions. The findings suggest other activities being undertaken by policy-makers in response to the management of hypertension and diabetes as follows;

- Encouraging health facilities to organize education programs (e.g. periodic diabetes/hypertension clinics)
- Organizing seminars, workshops and training programs on hypertension/diabetes management
- Leading health workers talking to identifiable groups on these conditions (e.g. Youth groups, churches, civil society groups).
- Organising regular community outreach programs using community health nurses and volunteers
- Encouraging research on these conditions
- Liaising with other bodies to provide support and infrastructure (e.g. Liaising with Novo Nordisk for the establishment of diabetes centres in Ghana)

However, with the exception of community outreach programs, these activities do not happen on regular and sustained basis. While admitting that progress has been made in clinical interventions, policy-makers were unanimous on the need to scale-up preventive interventions especially when it comes to controlling risk factors of hypertension and diabetes. The establishment of the Regenerative Health and Nutrition Unit within the MOH to promote healthy lifestyle is considered a laudable idea though inadequate funding is obstructing its impact.

## Health managers' viewpoints

Health managers in health facilities act according to broad strategic paths provided by the GHS but have the mandate to initiate certain activities within their facilities in response to these conditions. In planning and allocating resources, health managers are guided by certain considerations. One health manager of a regional hospital explained what informs programs in response to hypertension and diabetes;

So as you can see from this table on my computer, this is 2016 and hypertension was 5th on the top 10 causes of admission in this hospital. Hypertension was also 5th for causes of death. So straightaway, this tells me that if we are budgeting, we need to get some resources for hypertension management

According to the findings, health managers respond by planning and ensuring that hypertensive and diabetes clinics are held to educate patients. Health managers also encourage counselling in their facilities on these conditions but most importantly, they liaise with their respective directorates to organize occasional sensitization campaigns in selected communities on these conditions when they have the resources.

## Viewpoint of patient organization participant

Apart from championing the course of patients and lobbying for better concessions for patients with respect to accessing diabetes and hypertensive care, patient organizations have been aligning with other associations and groups in Africa and elsewhere to work towards reducing the incidence of these conditions. As part of the "Youth in Diabetes" project launched to reduce the incidence of diabetes by 15% between 2013 and 2020 across Africa, a screening program to ascertain the prevalence level in the youth is ongoing in Senior High Schools in Ghana. The findings suggest that so far schools in the Western, Eastern, Central and Greater Accra Regions have been screened and that screening the Volta region is about to commence. The organization partners with Associations of other countries for support and trains health personnel and trainers of trainers, a typical example being its collaboration with the Irish Diabetes Association to offer training to health care professionals on diabetes management. Though educational campaigns have been erratic due to inadequate resources, leaflets and easy-to-read fliers are designed and distributed in health facilities. Currently, the patient organization is liaising with government for the introduction of taxes on

products with sugar levels in excess of approved limits with the intention of allocating some funds to advocacy groups for their activities.

Views from patient organization suggest several challenges in diabetes and hypertension management in Ghana. These include over-emphasis on malaria and HIV/AIDS to the neglect of diabetes and hypertension, inadequate resources to implement policies on diabetes and hypertension, high cost of treatment as certain services and medications are not covered by insurance, limited training on diabetes, inadequate health personnel (e.g. Ghana has only eight endocrinologists), and the absence of a specialist centre for diabetes complications management.

## **Payers' viewpoints**

Findings suggest that the National Health Insurance Scheme was set up to pay for curative care for patients who have received care from health facilities. To payers, preventive care is the responsibility of the Public Health Directorate of the GHS who are given budgetary allocation to undertake preventive activities on all conditions of public health importance including hypertension and diabetes. Thus, the main contribution of payers is to reimburse providers for diabetes and hypertension treatment services and medications covered under the scheme. Discussions on the benefit package for hypertensive and diabetic care is on-going as findings from a patient organization indicated that its effort to convince payers to cover at least the first prick of the finger for all patients who go to health facilities is yet to be considered. The NHIA has a budget line for MOH with a strategic purpose of helping them to support and improve health care infrastructure. Payers also play important role as key stakeholders in engaging with MOH/GHS on financial implications of policies and action plans.

## **Providers' viewpoints**

Findings suggest that the NDA, the MOH/GHS and Novo Nordisk, a Danish Organization, have established a diabetes centre in the Ga South Municipality which provides holistic diabetes and hypertension services to communities in the municipality. The centre is well equipped with a pharmacy, consulting room, and education and counselling centre. The centre provides preventive and clinical services for patients suffering from diabetes and hypertension. Services in response to these conditions include;

- Educating patients on diabetes and hypertension
- Counselling services
- Foot care
- Neuropathy and retinopathy assessments
- General laboratory services
- Using dummies to train patients and immediate relatives on self-insulin injections
- Undertaking occasional screening programs for selected communities (some communities screened include Weija, Aplaku, Oblogo, Mallam, and Dome market)
- Minor surgeries
- Liaising with Municipal Health Directorate to provide education and screening support for churches and youth groups, and
- Occasionally liaising with celebrities to run campaigns on hypertension and diabetes.

Providers in the Effutu Municipality provide clinical care for patients suffering from hypertension and diabetes in the out-patient department. Providers believe that given the resources at their disposal, they are providing good clinical services even in acute situations for patients with high creatinine levels and bad urea secondary to hypertension. Participants stated that increasing cases of diabetic ketoacidosis (DKA) or Hyperosmolar Hyperglycaemic State (HHS) have been managed well. General education in the outpatient department occurs as patients wait to see health providers but this is not necessarily about hypertension and diabetes. However, health managers have recognised the need and are now planning to organize periodic

diabetes and hypertension clinics as the incidence of these conditions rise in communities. The findings suggest that there is limited action in terms of education and screening programs in the community but patients who come to health facilities with suspected cases of hypertension and diabetes are screened. Education is mainly physician-based as doctors attend to patients but this is quite limited due to the number of patients doctors have to attend to.

## **Viewpoints from advocacy group**

Participants stated that their response to the diabetes and hypertension challenge has been two-fold; education and advocacy. One way of encouraging advocacy on hypertension and diabetes is through the promotion of research on these conditions.

A discussant stated;

We advocate for strong research currently. For example, from the RODAM study we see that although we usually believe that staying in the rural area should be protective of these conditions, preliminary findings suggested otherwise so what is it that we are doing differently?

The findings suggest that the GMA encourages members to undertake effective research on these conditions through its journal, the Ghana Medical Journal. On education, participants stated that this is being done on several platforms and include going on radio and TV stations, churches and other organized groups to educate stakeholders on these conditions. The Association uses its AGMs to educate stakeholders on NCDs in general and more specifically on hypertension and diabetes. A participant explained:

Last two years our AGM program and theme was on NCDs and about two weeks from now we are holding a program with all players in the health sector at the Ghana College of Physicians and Surgeons on NCDs with the theme ‘Non-communicable diseases burden in Ghana: the eye of the crocodile’. So because we see it as a major challenge we seize every opportunity to do some education on these conditions

## **Patients’ viewpoints**

Focus group discussions with patients revealed findings which confirms viewpoints from other stakeholders about more attention being placed on treatment than prevention. Some patients believed the way forward for health authorities is to undertake the same education as they do on malaria and HIV/AIDS. Most patients did not know about the risk factors of hypertension and diabetes before they became hypertensive or diabetic and findings suggest that some patients still have limited knowledge of their condition. Patients stated that it appears Ghana’s response is “a get-sick-and-come” response and that you hear more of these conditions only when you come to the health facilities. Patients’ views on treatment were however mixed. Whereas some believed that once diagnosed, treatment was very good especially if appointments are kept, others concentrated on challenges associated with treatment. Patients were not happy about being made to see different doctors on different occasions as they feel this does not ensure consistency in treatment. However, a crosscheck with health providers suggested this sometimes become necessary due to doctors and nurses having different schedules in theatres or being made to attend to emergency situations. A major issue that came out of discussions was compliance. Some male patients admitted that they use herbal medications because they have sexual issues whenever they take some of the hypertension medications.

## **Discussion**

Findings of the study suggest that policies for managing hypertension and diabetes in Ghana emanate from a broad programme of periodic scanning through a holistic assessment of the health sector and identification

of health needs. However, once needs are detected, the initiation of the policy process is somewhat nebulous. Though by law the MOH is expected to lead the policy formulation process, the process is sometimes led by the GHS. This has undermined the role and authority of the MOH in the policy formulation process. A far-reaching effect is that the MOH is not able to play its leadership role in the process by pulling all agencies along to work towards achieving desired policy goals. The result of the unclear lines of authority is instances of disagreements where certain agencies such as the Christian Health Association of Ghana (CHAG) refuse to honour policy formulation invitations by the GHS as they believe the CHAG and GHS are both agencies of the MOH. A poor understanding of tasks or disagreements on tasks which are not clearly defined in the right sequence has been seen as having a negative impact on the formulation of policies (Sakyi, 2008).

Though major stakeholders are invited in the formulation of policies on diabetes and hypertension, the mode of invitation has affected the credibility of the whole process of engagement. Assembling all stakeholders together in one location has negatively affected policy formulation and implementation in many ways. First, some stakeholders do not make any input during policy discussions because of fear of being challenged or a lack of confidence to air their views on policies in public; second, the most qualified people whose inputs would be more beneficial to the policy do not attend these policy meetings; and third, the flamboyant panoply of jargons by policy experts put the 'fear of God' in certain stakeholders who then decide to mind their own business though present in such meetings. In the end, though a tall list detailing the number of stakeholders consulted is presented, the actual input of these stakeholders and interest groups remain insignificant. This leads to a lack of support for the policy which eventually affects implementation effort. According to Smith (1973), in most developing countries, the real impact of a poorly-managed stakeholder engagement process is detected during the implementation stage of the policy process where policies usually end up being abandoned or modified to suit the interests of all stakeholders. Smith (1973) believes that this represents a complete departure from what prevails in Western countries where stakeholders know from the outset that policies would be implemented once formulated and try to make the necessary input, as very little could be done at the implementation stage of the process. Luckily, policy-makers in Ghana hope to bring the engagement process to the doorsteps of stakeholders by engaging them in the comfort of their offices in an atmosphere bereft of intimidation.

Implementation of health policies has always been a problem not only in Ghana but in other lower -and-middle-income countries (Sakyi, 2008). In general, low commitment from stakeholders, communication challenges, intra- and inter agency disagreements, and a lack of accountability are among the factors that account for poor implementation of policies in many LMICs (Brownson *et al.* , 2003). However, in Ghana, the way the health system is organized affect implementation effort. The MOH has a very little impact on policies once formulated, and implementation falls to the agencies of health, creating a major gap. The presence of a gap between policy formulators and implementers was viewed by Egonmwan (1991) to undermine the whole policy process and widens the path between purported policy objectives and goals that would be achieved at the end of the day. Honadle (1979), in metaphorical terms, compares such a gap between policy formulation and implementation to masons who fail to build or stick to specifications and end up distorting the beautiful building plan.

Also, the role of resources in the implementation of policies cannot be discounted. In the case of Ghana, findings suggest that inadequate funds to implement hypertension and diabetes policies is a big challenge for policy-makers. Inadequate resources as a key impediment in the implementation of policies correspond with other works by Bosu (2010) and Makindle (2005).

In a country where people go to health facilities only when they are sick, perhaps more attention and resources should be given to prevention. Though policies on controlling risk factors have been formulated, there are no established and sustained programmes to educate people on the risk factors of hypertension and diabetes. Education on risk factors remain spontaneous and inadequate and is carried out mostly in health facilities (for those who already suffer from these conditions) and occasionally in communities. In contrast to the situation in Ghana, some LMICs have carried out risk factor intervention programmes to good effect. A case in point is the Agita programme which has successfully been implemented to encourage physical

activity in Sao Paolo, Brazil (Matsudo *et al.*., 2002). Other countries are combining resources and ideas to combat hypertension and diabetes and risk factors. A strategy to control obesity in the Arab countries has been launched in Bahrain (Musaiger *et al.*., 2011) to maximize efforts in the fight against NCDs.

Screening interventions are an important part of hypertension and diabetes management. Apart from the main aim of early detection and prompt treatment to avoid complications, evidence suggests that systematic screening and testing programs have long-term cost-saving benefits (Driskell *et al.*., 2014). Sadly, the unavailability of established screening programmes in service delivery for diabetes and hypertension management in Ghana means that the benefits of cost savings would be lost as cases would be detected at complicated stages where the cost of treatment is always high. Though mass screening programs are usually not encouraged (Azevedo & Alla, 2008), it is still beneficial for individuals with risk factors of hypertension and diabetes to avail themselves and get screened. The lack of established screening programs is not peculiar to Ghana. Studies confirm high levels of previously undiagnosed diabetes in African populations including 83.7% in Nigeria (Nyenwe *et al.*., 2003), 84.8% in South Africa (Motala *et al.*., 2008) and as high as 100% in rural Guinea (Balde *et al.*., 2007).

Though clinical interventions have received more attention, this is far from perfect. Patients struggle to have access to essential medication for diabetes and hypertension throughout Africa. This is particularly serious in countries like Mali, Mozambique, and Zambia (Azevedo & Alla, 2008). Evidence suggests that these challenges are partly the result of over-emphasis on infectious conditions in Africa (Aikins, 2007; Bosu, 2010). Though inadequate, support comes from non-governmental organizations, corporate entities, philanthropists and other civil society organization. The activities of Novo Nordisk in the Ga South Municipality is a perfect example of such success stories. Ghana is, however, only one of several African countries to benefit from this initiative which started in 2002 by Novo Nordisk, with over 30 countries already benefiting from the initiative of establishing diabetes and hypertension management centres in Africa (Azevedo & Alla, 2008).

## Conclusions and policy lessons

In the light of the findings of the study, it can be concluded that Ghana is aware of the threat posed by hypertension and diabetes and is developing policies for managing these conditions. An overarching policy framework and strategy have been put in place which establishes the roadmap for managing hypertension and diabetes. Specific policies on tobacco, alcohol, and nutrition have all been launched. Consequently, policy response has been encouraging. However, these policies are yet to be implemented. Also, Ghana's response to the challenge of hypertension and diabetes has been predominantly towards clinical management and pharmacological treatment of individuals already suffering from hypertension and diabetes. There is no sustained program of education from health authorities on risk factors of these conditions and advocacy is mainly through the occasional efforts of few organizations. The inability to implement hypertension and diabetes policies and the inadequacy of preventive action have all been attributed to a lack of resources.

### *Policy lessons*

A practical policy lesson that arises from this study is that implementation of health policies in Ghana should be the responsibility of all stakeholders. The current scenario where all implementation issues have been left to the Ghana Health Service means that other agencies and institutions play the role of bench-warmers in implementing diabetes and hypertension policies. Managing hypertension and diabetes is highly complex and involves all players and interests in a health system. A re-orientation of thinking that recognizes the role played by all interests is key to implementing diabetes and hypertension policies. In this regard, attention should not be given to the policies alone but also to the processes involved in the formulation of policies such that all agencies recognize that once a policy is made, it will be implemented and that their interest must be captured in the formulation stage to engender an all-inclusive and effective implementation.

Another important lesson is that since a major issue in Ghana's fight against diabetes and hypertension is the implementation of policies, there is the need for policy-makers to keep themselves abreast of modern implementation science techniques. This would enable policy-makers and implementers to scrupulously identify barriers to, and enablers of, effective hypertension and diabetes policy-making and apply this know-how for the development of innovative and evidence-based approaches in delivering hypertension and diabetes programs.

Last, over-concentration on clinical interventions may not be the way forward in terms of managing diabetes and hypertension. A practical lesson might be to utilize resources effectively on a blend of cost-effective preventive and clinical interventions. Managing diabetes and hypertension is complex and demands the utilization of a full range of instruments-legislation, subsidy, taxes, education, investment in research, etc. and not only on treatment.

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