IMPLEMENTING PROGRAMME BASED BUDGETING IN GHANA'S HEALTH SECTOR

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World Health Organization

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ABBREVIATIONS

ABB	Activity Based Budget/Budgeting
BFSP	Budget Framework Strategy Paper
BMC	Budget Management Centres
CAGD	Controller & Accountant General's Department
CAPEX	Capital Expenditures
CIDA	Canadian International Development Agency
EU	European Union
GFS	Government Financial Statistics
GHS	Ghana Health Service
GIFMIS	Ghana Integrated Financial Management System
GOG	Government of Ghana
HSMTDP	Health Sector Medium Term Development Plan
IGF	Internally Generated Funds
IPSAS	International Public Sector Accounting Standard
MDA	Ministry, Development and Agency
MDTP	Medium Term Development Plan
MOE	Ministry of Education
MOF	Ministry of Finance
MTEF	Medium Term Expenditure Framework
NDPC	National Development Planning Commission
NHIA	National Health Insurance Agency
ODA	Overseas Development Agency
PBB	Programme Based Budget/Budgeting
PFM	Public Financial management
PHC	Primary Health Care
PIT	Project Implementation Team
PoW	Programme of Work
PUFMARP	Public Financial Management Reform Programme
WHO	World Health Organization

EXECUTIVE SUMMARY

Much like overall health financing, Ghana's budgeting process has undergone a lot of changes in recent years. First in 1998, Ghana's budget transitioned from input-based to activity-based as a way to better link strategic objectives to budgeted activities. In 2009 the central government then shifted the structure of the budget again, with piloting (including in the health sector) of programme-based budgeting (PBB), which was fully implemented across all central-level government ministries in 2014.

This study assesses the status of the implementation of this transition to PBB in the health sector in Ghana. It examines the impact of this change in terms of how funds are budgeted, allocated, used and accounted for across the sector. Ultimately, this analysis considers the linkages of PBB with sector goals and objectives, and how implementation can be improved for greater impact.

The study finds that while PBB has helped to consolidate activities and infuse greater performance orientation into the budgeting process, many challenges remain. In particular, the continued dominance of input-based, line items, particularly below the central-level, constrain flexibility and the ability to coordinate activities across departments or disease programmes in the health sector. This degree of inflexibility goes to the lowest level of the health system, with input-based budget ceilings set for the more than 500 budget management centres in the sector, and is driven in part by the large share of the health budget that is dedicated to salaries and wages. The potential benefits of PBB in terms of joint budgeting across health programmes and inputs has not yet been taken advantage of, which contributes to inefficiencies across the sector. Furthermore, while performance indicators have been established, they are not systematically tracked or used in allocation decisions.

In moving forward, Ghana has shown its adaptability and willingness to be on the cutting edge of reform initiatives in the health sector, and in relation to public financial management (PFM) and budgeting as well. At this stage, the focus now should turn to fully and effectively implementing these positive initiatives to take full advantage of their potential benefits. These efforts should go together with overall progress related to health financing reforms. In this way, the budget can be an effective enabler of changes to health financing and overall service delivery in Ghana.

1. INTRODUCTION

Ghana has been at the forefront of many health-related public financial management (PFM) reforms in recent years. In particular, the health sector has been a pilot for both the introduction of the Medium-Term Expenditure Framework (MTEF) and programme-based budgeting (PBB), which were subsequently rolled out across the entire government. These larger governmental shifts have sought to improve alignment between budgetary resources and sector priorities and objectives, while also introducing greater accountability.

The budgeting and policy reforms have taken place following major structural changes during the 1980s, 1990s and early 2000s that fundamentally changed the way the overall health sector is organized and governed. Three major reforms influenced the trajectory of PFM in the health sector, and related budgeting processes.

a. **Decentralization** *(1):* Health was among the first sectors to decentralize decision-making authority in the 1980s as a way to bring services closer to the people.[1] As part of this process, the health sector established Budget Management Centres (BMCs, sometimes referred to as "cost centres") at the district, regional and national levels. Currently there are more than 500 BMCs in Ghana's health sector that continue to act as budget holders with responsibility to prepare, spend and track annual budget allocations.
b. **Establishment of the Ghana Health Service (GHS)**: The GHS and Teaching Hospitals were established by law in 1996. This policy intended to place the Ministry of Health (MOH) in the stewardship role, distinct from service delivery activities. As part of this shift, many MOH health personnel were absorbed into the GHS, which now operates as a semi-autonomous executive agency within the health sector, and is organized across five levels – national, regional, district, subdistrict and community. Most of the disease or intervention-specific programmes sit within the Public Health Division of GHS, which itself has nine divisions. From a budgetary perspective, GHS is another BMC and has its own ceilings and allocations.
c. **Establishment of National Health Insurance Agency (NHIA)**: In 2003, the Ghanaian NHIA was established. As part of this reform, an earmarked tax was established by increasing the VAT by 2.5 percentage points to complement direct contributions from formal sector employees. As of 2017, the NHIA covered approximately 40 percent of the Ghanaian population and has gone through a number of reforms intended to address cost- and coverage-related issues *(2)*.

These policy reforms provide the foundation for many of the current health sector budgeting dynamics in Ghana. Alongside, they were facilitated by the creation of a National Development Planning Commission (NDPC)

1 This message was later incorporated in the 1987 Harare Declaration which was signed by 22 African countries including Ghana.

that advises the President on medium- to long-term development planning policy and strategy.[2]

Part of an overall WHO area of work on budgeting in the health sector *(3)*, this study assesses the current status of budgetary reforms in the health sector in Ghana, with a particular focus on the transition to PBB. PBB has a long history in many high-income countries and is increasingly adopted in low- and middle-income countries to classify and group expenditures by policy objectives or outputs *(4)*. While budgetary programme[3] classifications were adopted in Ghana as of 2014, there remains a question of the impact on budget efficiency. These issues are analyzed as a basis for recommendations for future budgetary reforms in the health sector.

After this introduction, overall PFM reforms that serve as the basis for health sector budgeting are described in section 2. Next, in section 3, the transition to PBB in the health sector is assessed and challenges related to implementation of PBB in the health sector are presented. In section 4, recommendations are provided on ways to address identified implementation challenges and bottlenecks.

2 See 85 of the *Constitution of the Republic of Ghana, May 1992, The Ghana Gazette*

3 Throughout this paper the term "programme" is used in reference to budgetary programmes. In the case that another type of programme is reference (i.e. health or disease programme), explicit differentiation is made.

2. RECENT PFM REFORMS

2.1 EARLY STAGE (1995–2008): INTRODUCTION OF ACTIVITY-BASED BUDGET (ABB)

In 1995, the Ghanaian government, with the support of external partners, launched its *Public Financial Management Reform Programme (PUFMARP)* to improve PFM and strengthen public sector management.

The goal of PUFMARP was to provide a strong foundation for PFM (particularly for budgeting) in the public sector by integrating all aspects of PFM across the government, to address the challenges left by earlier reform attempts. It was funded both by the Government of Ghana and development partners.[4] The reform was officially initiated in 1996 and the first phase ended in 2002, with a second phase lasting from 2002 – 2007. It consisted of ten components (see table 1). PUFMARP brought about two key changes.

First, the MTEF was introduced as part of budget preparation reforms *(5)*. This framework, which still operates today, uses a four-year time horizon that links activities to outputs, and replaced the annual input-based historical budgeting with activity-based budgeting (ABB). It aimed to strengthen budget preparation and what started as a pilot in three ministries (including health) expanded to all 21 within two years.[5,6] During the expansion phase, sector goals were introduced into the MTEF framework, which meant that budgets were linked with outcomes.

Table 1. Components of the PUFMARP

1.	Budget preparation
2.	Budget implementation
3.	Financial Accounting and reporting
4.	Cash management
5.	Revenue management
6.	Aid and debt management
7.	Auditing
8.	Fiscal decentralization
9.	Procurement reforms
10.	Integrated personnel and payroll

A strong, country-led governance structure was established to oversee the rapid expansion of the MTEF process (see box 1). The health sector was uniquely positioned to undertake this process after creating Medium-Term Development Plan (MTDP) and Five Year Programme of Work (POW) (1986-1991) as part of health sector reforms in the mid-1980s. These plans set the basis for multi-year policy priorities that could serve as a basis for budget plans. The National Development

4 The Development Partners included the World Bank, Oversees Development Agency (ODA now DFID), European Union (EU) and Canadian International Development Agency (CIDA). The World Bank played a leading role within the Development Partner group during the implementation of PUFMARP.

5 The pilot ministries were Ministry of Health, Ministry of Education and Ministry of Roads and Transport.

6 The total number of ministries is now 49, all of which use the MTEF framework.

Box 1. PUFMARP implementation strategy

PUFMARP was centrally coordinated by an internationally recruited Project Management Team (PMT) with a steering committee made up of Government of Ghana and development partners. Whilst the PMT was responsible for the day to day management of the project, the steering committee met monthly to review progress and provided guidance on policy, strategy and design of the various components of PURMARP. The steering committee was chaired by the Deputy Minister of Finance and the members were the highest administrative officers of the ministries (Chief Directors) and heads of other agencies of the ministries. Implementation was decentralized to a Central Implementation Team with membership from all implementing ministries. Each implementing Ministry had a Project Implementation Team (PIT) for each of the PUFMARP components with responsibilities for implementing the project. Budget Committees were formed in each implementing ministry with well-defined responsibilities for ensuring the success of the reforms. The Budget Committee was composed of the heads of agencies within the ministry. The role of development partners in the implementation of PUFMARP was limited to funding and membership of the steering committee.

Planning Commission continues to ensure alignment between the MOH's three-year MTDP and the MTEF objectives.

The second major change resulting from PUFMARP was the introduction of the Budget and Expenditure Management System (BPEMS) to create a standardized financial accounting and reporting system. Under this system, all Ministries, Departments and Agencies (MDAs) developed standardized activities and outputs that could be tracked over time.[7] ABB was introduced as a means to strategically group inputs based on related activities. To provide an illustration of what this looked like in practice, the health sector, one of the pilot sectors for ABB, had activities such as "provision of clinical services" and "manpower development (e.g. trainings, managerial courses)" with related inputs under each activity listed (see table 2 for examples of health sector activities in ABB for BPEMS). This was conceptualized as a technology driven reform because it sought to introduce a form of electronic accounting *(6)*.

As the PFM reform process progressed, legal amendments to facilitate progress included the Financial Administration Act (2003) and the Financial Administration Regulations (2004), which comprised the main framework for preparing budgets and financial accounting in the public sector.[8] Implementation happened concurrently with relevant line ministries and local government. Training on the MTEF and BPEMS was also decentralized to the district level. By 2008, 80 percent of all implementing ministries prepared their budgets at the district level.

7 This was done through the use of an electronic budgeting software named *"ACTIVATE"*.

8 Other supporting legal amendments included the Public Procurement Act 2003, ACT 663, Internal Audit Agency Act (Act 658 of 2003), Ghana Revenue Authority Act, 2009

Table 2. Examples of standard activities in ABB for BPEMS and MOH (before PBB)

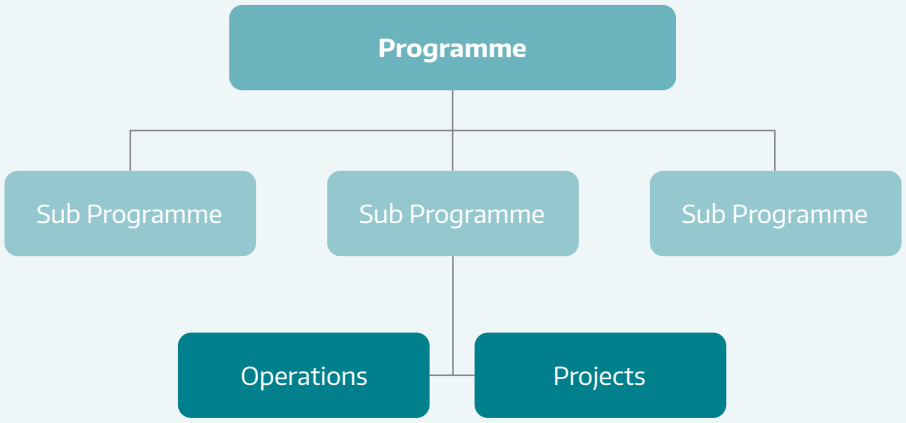
Government BPEMS Standard Activity Description (Health)	MOH Standard Activity
Manpower development (e.g. training, managerial courses, further education workshops and seminars).	– Attend International Workshops, Conferences and Seminars (excludes fellowship awards) – Organize workshops, conferences, seminars – Provide and Sustain Staff Incentive Schemes – Provide co-curriculum activities – Provide Hostel Services – Provide In-service Training – Provide Tuition
Meetings and conferences (special events, tours, festivals, receptions, banquets, work related retreats and official visits, lobbying, etc).	– Attend In-country Workshops, Conferences and Seminars – Organize Management Meetings (e.g. RHMT, DHMT)
Monitoring and evaluation (Inspections, testing, data collection, certification, surveying, mapping, census, impact assessment, reviews, seismological survey and policy formulation).	– Undertake support, supervision and monitoring visits
Provision of clinical health services	– Ensure Safe Blood – Provide Catering Services – Provide Dental Services – Provide Diagnostic Services (Laboratory) – Provide ENT Services – Provide Eye Care Services – Provide Hospitality Services (accommodation-all wards) – Provide Mental Health Services – Provide Mortuary Services – Provide Outpatient Consultation Services – Provide Pharmaceutical Services – Provide STI Services – Provide Surgical Services (Minor-e.g. suturing) – Provide Surgical Services (theatre) – Provide X-ray Services – Undertake Specialist Outreach Services
Provision of public health services	– Undertake Outreach Services
Research and Development (i.e. funding research costs, research, publications, Information and data collection, processing analysis, databases and systems)	– Conduct Research Activities

2.2 ADJUSTMENTS TO FRAMEWORK (2009–2013): FROM ABB TO PBB

Major shortcomings in ABB emerged as implementation progressed, including an array of poorly defined activities and outputs that lacked clear linkages to outcomes within and across sectors. In addition, many of the activities were wrongly defined as inputs. Each year more activities were added whilst many of them were left unused. It became difficult to analyze budget trends over time using standard activities and outputs. Further, the technology driven reform used for budgeting (BPEMS) failed to address the integration of government revenue and expenditure management across sectors.

To address these challenges, PBB was explored in 2009 and piloted between 2011 to 2013. It was introduced to improve budget preparation, while supporting

Figure 1. Structure of PBB



management and accountability by creating a clear linkage between policy priorities and planned expenditures. It also set out to shift the budgeting logic from inputs and activities to results and outcome indicators. A budgetary programme was defined as a group of independent, but closely related, activities designed to achieve a common objective (Figure 1) *(7)*.

Several factors were considered when developing budgetary programmes and sub-programmes, including: (i) the National Strategic Framework (aimed to help design medium-term and annual development plans at sector and district levels); (ii) how to make the process between line ministries, including Health, and Ministry of Finance (MOF) more interactive; and (iii) how to absorb all on-going policies and activities into the budgetary programme classification.

The motivation behind introducing PBB in Ghana was to:

1. Link national policy goals to the services the ministry delivers (mandate)
2. Enable policy makers and planners to know the cost of policy objectives, programmes and sub-programmes
3. Allow the measurement of the impact of policy decisions
4. Make Ministries more accountable for resources allocated to them

This resulted in a complete set of budgetary programmes covering all expenditures and activities and was coupled with a coding system where each budgetary programme had a unique identifier. PBB programmes and sub-programmes were based on activities across agencies within an MDA, rather than limited to a specific agency. Roles, managerial responsibilities for outputs and indicators for each agency within a sub-programme were clearly clarified and defined. This transition did not abolish disease-focused health programmes in the budgeting process. Rather health programmes represent a set of activities. While allocations are linked to budgetary programmes and inputs, BMCs

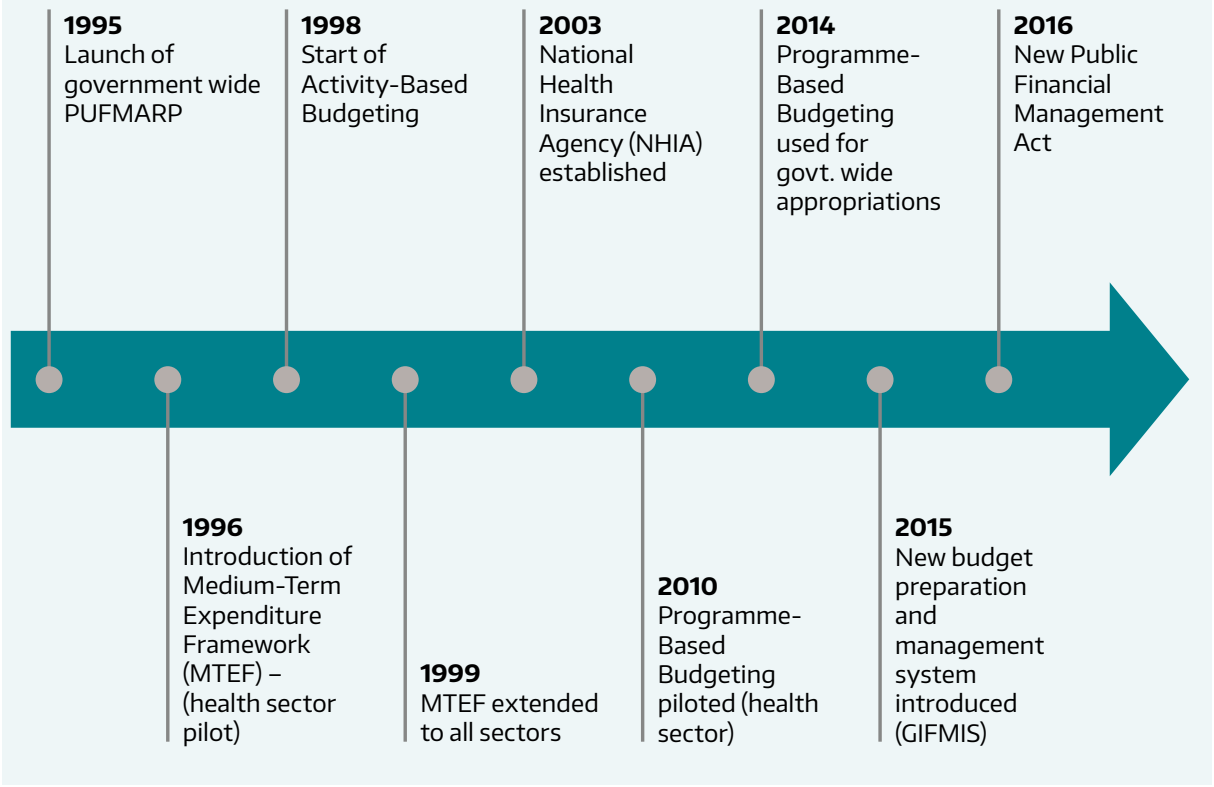
have flexibility in setting activities which relate to outputs; however, they have to use the same inputs to achieve set output targets.

To facilitate the transition, the Government of Ghana (GOG) in 2009 launched the Ghana Integrated Financial Management Information System (GIFMIS) to replace BPEMS *(8)*. To improve reporting and monitoring, the government adopted the IMF Government Finance Statistics (GFS) framework in 2012. In line with this, it also adopted the International Public Sector Accounting Standard (IPSAS) to harmonize accounting practices as per international best practices.

The overall implementation of PBB took several steps (see figure 2). To begin with, pilot MDAs (including the health sector) were involved in the review of a PBB concept paper developed by MOF. This resulted in a draft PBB manual for implementation. MOF facilitated the training of MDAs through a series of workshops that focused on translating ABB into PBB format.

The expected outputs of implementing PBBs were to facilitate closer alignment between planning and allocation of resources, measure targets against performance, and create flexibility for MDAs to manage budgets efficiently and effectively (as demonstrated in table 5). PBB was fully adopted in in 2014 and the first PBB statement was published through the 2015 budget.

Figure 2. Timeline of transition to PBB



The *Public Financial Management Act, 2016* was enacted to establish the implementing framework for the transition from ABB to PBB. Based on the provisions of this act and subject to the 1992 Constitution, Ghana today develops its budget through a reformed PFM process.

2.3 RESOURCE MANAGEMENT UNDER PBB (SINCE 2014–2015)

The key differences between ABB and PBB are twofold:

1) **Cross-cutting objectives**
   Under PBB, objectives of the programmes and sub-programmes within an MDA were defined to reflect the functions of the MDA and were linked to other agencies within the same budgetary programme. Under ABB, departments and other agencies within an MDA had objectives linked to the MDA's objectives, but each one operated independently of each other.

2) **Performance orientation**
   Performance measurement was introduced through the PBB. Prior to this, the ABB had very detailed outputs with a one-to-one relationship to activities and detailed recurrent activities (separate from capital), but no outcome indicators. In contrast, the PBB high-level outcomes are linked to MOH objectives. Indicators include intermediate outcomes and broader outputs that match directly to operations (i.e. activities) and projects. Operations and projects incorporate both recurrent and capital activities. Unlike the very detailed activities under ABB, PBB activities are broadly defined and describe functions of a sub-programme (see annex B for an overview of the PBB performance measurement framework).

These translate into four key advantages that PBB brings where ABB could not:

1) Helps align programme priorities to national priorities;
2) Simplifies reporting (facilitated further by GIFMIS);
3) Links resources, activities and outputs; and
4) Introduces performance monitoring.

One key challenge that PBB has helped to overcome is the reporting of different budget and performance data between MOF and MDAs. For example, prior to PBB, only MOH output indicators were linked to the budget, and these outputs had no relationship with the non-financial indicators in the sector's monitoring and evaluation plan. Despite this progress, coordination during the initial PBB years was a challenge within MOH, as the Budget and Monitoring and Evaluation offices were not working together during the preparation of the budget and annual review reports. Further, some service indicators were not in the core sector indicators reported by MOH to partners. This led to duplicative and overlapping reporting structures and processes.

Overtime this was aligned and PBB now includes all the core sector-wide indicators. As part of this implementation process, detailed indicators were developed, aligned and integrated with relevant monitoring and evaluation indicators. Budget and Monitoring and Evaluation officers in the MOH now work together to prepare the budget and budget performance report. The format of the budget

Table 3. Summary of the five key institutional relationships that play a Role in aligning policy and budget formulation

Relationship	Description of Relationship
Legislative and Executive Branches	Sets strategic priorities for how resources are to be allocated.
MOF and Cabinet	Coordinate policy formulation and budget formulation. The two institutions work together to develop the Budget Framework Strategy Paper (BFSP) and the Pre-Budget Policy Statement. They also work together to ensure fiscal discipline and MDA Medium-Term Development Plan (MDTP) priorities are achievable.
MOF and NDPC (National Development Planning Commission)	MOF is responsible for the recurrent budget, along with some components of the capital budget like project implementation (PID) and GIFMIS (asset management). NDPC steers the policy to develop the capital budget and longer-term development planning. The challenge in this dynamic is matching policy ambitions with available resources.
MOF and MDAs	MOF plays an important budget oversight role for MDAs. It also determines resource envelopes or budget ceilings for MDAs. MDAs rely on MOF to follow BFSP and Budget Guidelines for matters like funds release.
NDPC and MDAs	NDPC guides MDAs in preparing MTDPs and ensuring sector plans align with national development objectives. MDAs rely on NDPC advice to prepare MTDPs.

Source: Authors

Table 4. Sample from Appropriation Bill (2018 Ghanaian Cedi)

04 – Social	Government of Ghana			
	Compension of employees	Goods and Services	Capex	Total
Ministry of Education (MOE)	7,199,744,624	92,852,960	2,822,910	7,295,420,494
Ministry of Employment and Labour Relations	39,324,803	303,933,691	635,390	343,893,883
Ministry of Youth and Sports	16,857,786	12,411,380	2,774,420	32,043,586
National Commission for Civic Education	44,873,522	2,146,090	1,000,000	48,019,612
Ministry of Chieftaincy and Religious Affairs	34,858,622	2,949,010	2,000,000	39,807,632
Ministry of Health	2,588,541,794	11,888,550	13,000,000	2,613,430,344

performance report has been adapted into the annual review report. The indicators and performance data in the PBB report are now consistent with the health sector indicators and reports. Parliamentarians can track performance every quarter from the budget performance report. The PBB structure therefore strengthens the relationship between the functions of the ministry and the structure (i.e. agencies) that drives the use of resources.

The 2016 PFM Act requires MOF to issue guidelines for preparation of annual budgets to MDAs, which include ceilings on the required number of staff for each covered entity and the cost of appropriation for the relevant years of the public service.[9] Importantly, MDA ceilings are set in terms

9 See section 20(2)(f) of the *Public Financial Management Act, 2016*

of three main inputs (i.e. Wages & salaries; Goods and services; and capital expenditures (CAPEX)). Developing the programme-based budget starts with inputs (see table 4) in line with budget classifications and the GIFMIS Chart of Accounts (CoA) provided by MOF, i.e. by inputs.

As shown in table 3, there are five key institutional levels involved in aligning policy and budget formulation. This high-level alignment between the executive, legislative, financial and bureaucratic interests demonstrates the linkages between politics, resource allocation and how services are ultimately delivered to the population.

The budget process has significantly improved since the introduction of PBB, as observed in the guidelines for budget preparation and the quality of the budget produced. The guidelines have provided more clarity and understanding of the budget process, leading to increased participation of senior managers. The quality has also improved as there is now a clear link between budget and performance indicators, facilitated by increased the use of budget data.

3. PROGRAMME-BASED BUDGETING IN THE HEALTH SECTOR

3.1 PROGRAMME BUDGET STRUCTURE FOR HEALTH

Similar to other PFM reforms, the health sector was a pilot ministry for PBB between 2011 and 2013, during which time it developed a PBB structure around programmes and sub-programmes aimed at addressing the following six main objectives of the ministry, as per the Health Sector Medium Term Development Plan (HSMTDP 2014-2017):

1. Bridge the equity gaps in geographical access to health services;
2. Ensure sustainable financing for health care delivery and financial protection for the poor;
3. Improve efficiency in governance and management of the health system;
4. Improve quality of health services delivery including mental health services;
5. Enhance national capacity for the attainment of the health related MDGs and sustain the gains; and
6. Intensify prevention and control of non-communicable and other communicable disease.

The health sector initially had five budgetary programmse:

1. Management and Administration
2. Health Service Delivery
3. Tertiary and Specialized Services
4. Human Resource Development and Management
5. Health Sector Regulation

A new proposal comprising of four programmes has been put forward by the MOH and has been approved by the MOF for the 2020 budget cycle. The MOH is merging programme two (health service delivery) and programme three (tertiary and specialized health services) for more effective sector delivery; a proposal initially made in 2017. While this has not yet been fully implemented (i.e. the appropriation bill still allocates by five programmes) officially, on a practical level the HSMTDP 2014-2017 allowed for the implementation of four programmes, as described in the rest of this section, and performance indicators for the 2019 – 2022 MTEF also present the four budgetary programmes, while still maintaining the five for appropriations purposes (figures 3 and 4).

Within each budgetary programme there are embedded sub-programmes, functions and objectives (for programmes and sub programmes, see figure 4). This approach intends to provide clear responsibility and accountability mechanisms for programme and sub-programme managers.

Programme 1 (*Management and Administration*) relates to the governance, administration and financing of the health sector. Programme 2 (*Health Service Delivery*) relates to regional and district level health services. Programme 3 (Tertiary and Specialized Health Services) relates to tertiary and specialist services (to be consolidated with Programme 2 as mentioned above). Programme 4 (*Human Resources for Health Development and Management*) and

its sub-programmes support basic training and post-basic training, as well as specialized training for medical doctors, pharmacists, nurses, midwives and allied professionals. Programme 5 (*Health Sector Regulation*) addresses regulation of health professionals, health facilities (public and private); pharmaceuticals; medicinal and non-medical products.

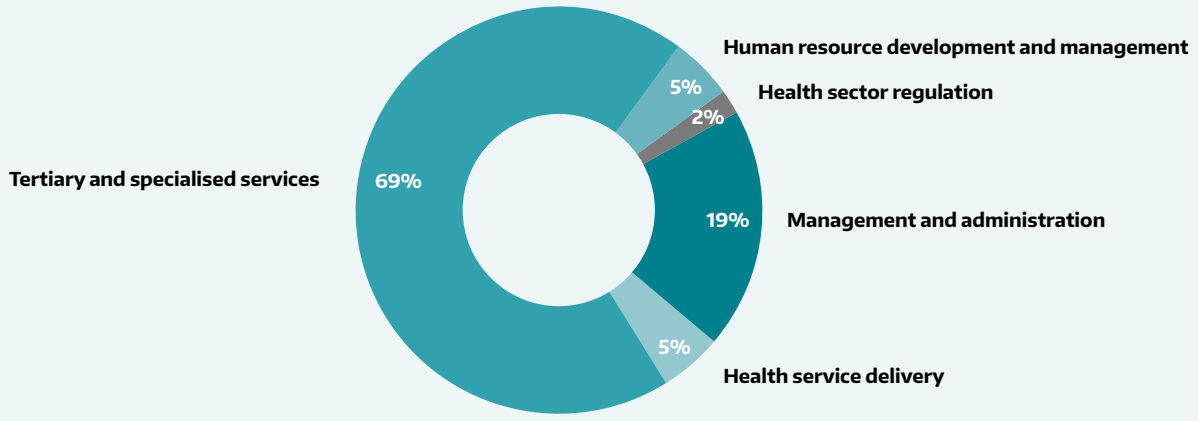
Operations are defined under each budgetary sub-programme. While some operations (such as those related to accounting) are common across MDAs, they are adapted to the individual context of each MDA in a way that also allows for standardized measurement.

The performance framework is comprised of 14 outcome indicators and 170 output indicators (table 5).

From a PBB perspective, GHS operations fall within programme 2: health service delivery. However, outside of the national level, the programme budget does not impact the actual allocation of resources across the GHS. Disease programmes, which sit within GHS, reside two levels below the Director of GHS. This level is not represented in the budgetary programme structure of the PBB report, although health/disease programme managers may be involved in the PBB preparation process. There is no direct link between the programme budget structure and the health/disease programmes. This structure lays the foundation for better coordination in terms of care and inputs across health/disease programmes; however, it is not fully taken advantage of due to the continued dominance of input-based, activity-oriented budgeting with health/disease programmes.

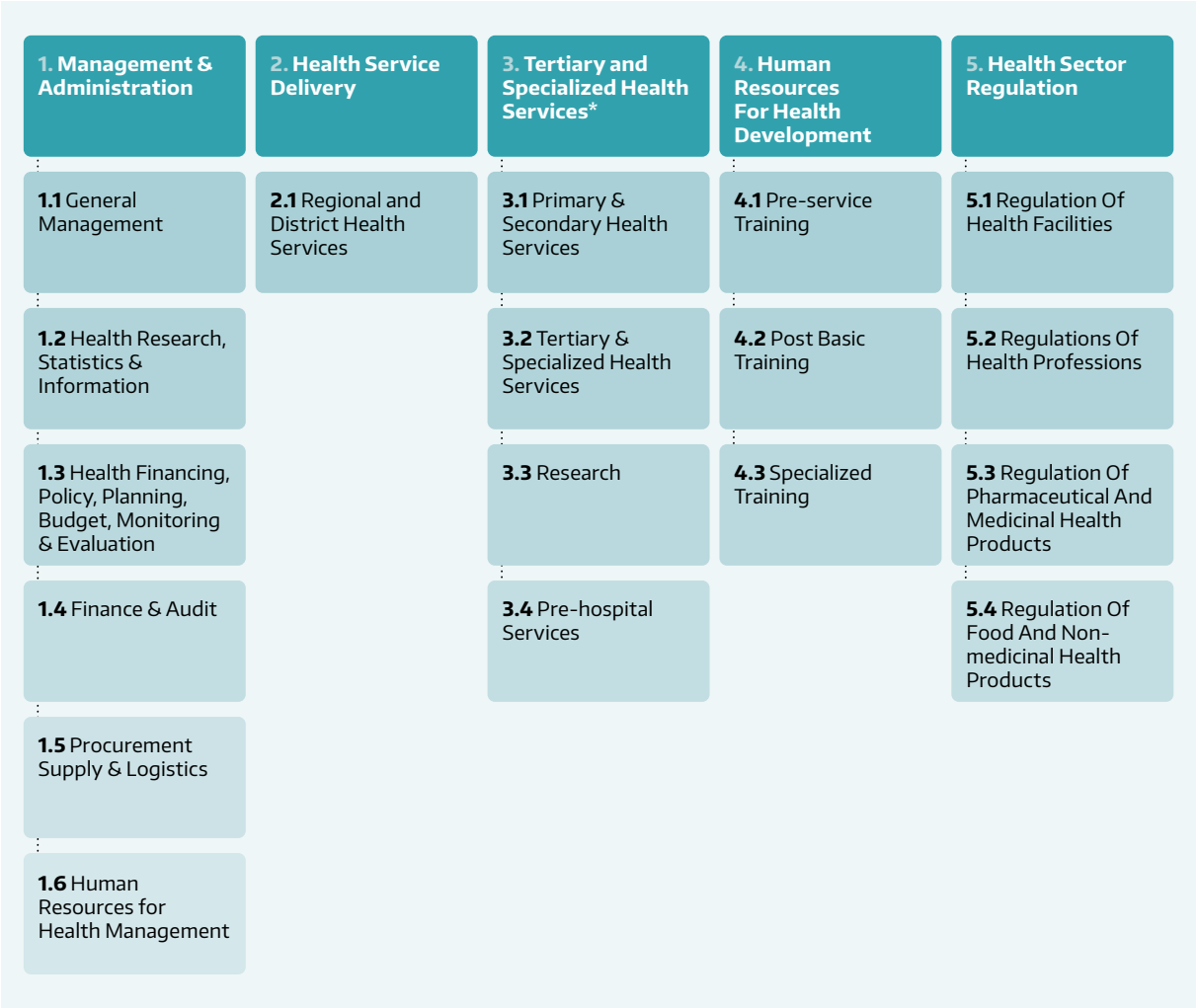
As a result, there has not been any significant change in the transition to PBB on how health/disease programmes or providers themselves plan, budget and report budgets. They continue to receive budgetary allocations based on inputs, as with other BMCs. Additionally, resources are not shared across budgetary sub-programmes. The scope for joint budgeting and planning is

Figure 3. Budget allocation by programme, 2019



Source: Republic of Ghana, Medium Term Expenditure Framework 2019-22, Ministry of Health

Figure 4. MoH Programme Budget Structure, MTEF 2019-2022



* In the process of merging with Programme 2: Health Service Delivery

limited, with little scope for flexibility across health/disease programmes or line items. Further, EPI, HIV, TB and malaria receive a large share of their funding from external partners. These funds are run off-budget, are heavily earmarked and are not reflected in the programme budget.

Table 5. Health budget programme and non-financial Indicators

2019 – 2022	
Programmes	4*
Outcome indicators	14
Output indicators	205
(by programme)	
Programme 1	63
Programme 2	107
Programme 3	21
Programme 4	14

* with appropriations still considering 5 budgetary programmes

3.2 FUND FLOWS IN THE HEALTH PBB

The health sector receives funds from four sources, each of which are integrated into the sector PBB, as follows:

1. Internally generated funds (IGFs)
2. Tax revenue allocated from the Government of Ghana (GOG)
3. Statutory funds under the NHIF
4. Donor funding

This section describes these revenue sources and their relationship with the PBB.

3.2.1 IGFS

BMCs raise IGFs through regular operational activities such as fees charged for warehouse inspections or user charges. Once generated, this funding is kept by the BMC; it does not get allocated to MOF or elsewhere in the health sector, unless the actual IGF exceeds the estimated/approved amount. By extension, IGFs are allocated and reflected in a form of approved budget. Any unspent IGFs get rolled over to the next budgeting year. These IGFs are accounted for in the input-based budgetary preparations conducted by each BMC, and therefore, there is little scope for reallocation across line items once budgets estimates are set.

3.2.2 TAX REVENUE ALLOCATED FROM GOG

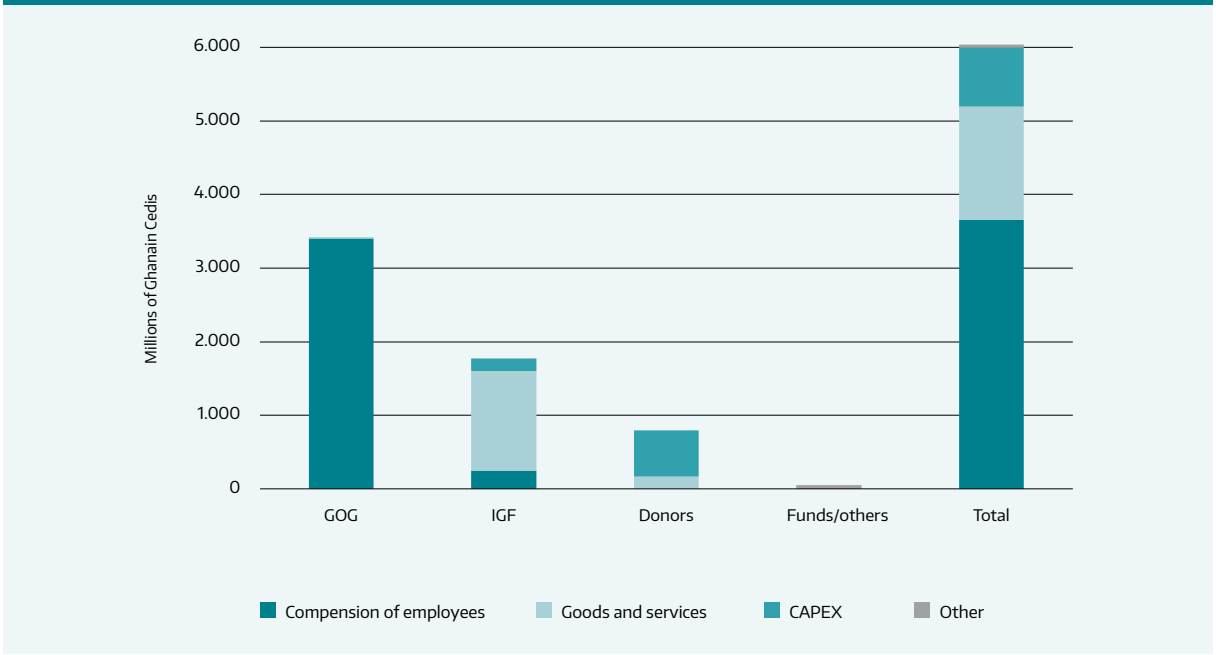
As MDA ceilings are set by the three inputs described earlier (Wages & salaries; Goods and services; and CAPEX), **GOG funds are allocated along the same three inputs**. Wages and salaries make up the majority of the funds transferred from the GOG. Outside of earmarked funding for the health sector, 99% of GOG discretionary funding (excludes NHI levy and IGF) in 2019 was dedicated to compensation of employees, while revenues for CAPEX and goods/services are derived from IGF and donors (see figure 5) (CAPEX is purely government funds).

To set budget allocations, the MOH requests all BMCs to complete certain forms in the MOF guidelines for preparation of annual budget issued to MDAs. The data from BMCs is collected electronically through the GIFMIS system for each budgetary programme across all three inputs, but are not based on a budgetary programme logic at this stage. Wages and salary data (such as staff ID or location) involves:

a) A basic counting exercise during the planning phase to map out available human resources
b) Stocktaking of those who will retire during the implementation of the plan
c) All planned recruitment within each geographical grid
d) Aggregating compensation by grid and coding it by programmes i.e. salaries are mapped to programmes

For goods and services, BMCs provide the name of the facility and how much they expect to generate based on revenue and expected expenditure. This is then aggregated by operations according to budgetary programmes and sub-programmes. Based on this, MOH prepares the PBB (and decides how to allocate by programme), subject to a ceiling set by MOF. As this ceiling is set by the three inputs, the decision on how to allocate by budgetary programme remains at the central MOH level, after which the PBB is broken back down into the three inputs. For example, the GHS receives input-based budget ceilings. This is then negotiated with MOF, and sent

Figure 5. Approved budget allocations 2019



Source: GoG Appropriations Act 2019

to parliament for approval. Once approved, disbursements are made every quarter and MOH is required to submit their cash plan on a monthly basis. Disbursements are made based on this and based on revenue inflows at the tax authority.

While MOF should ideally pay tax revenue directly to BMCs, in practice this is done by MOH due to evolving changes in sector priorities (e.g. if GHS needs to reallocate based on disease programme priorities). For approval, MOF issues a monthly warrant to MOH with the Controller and Accountant General's Department (CAGD) copied, the latter then usually asks for the breakdown and explanation before final approval and instructions to GOG to issue transfer. For actual release of funds, MOF instructs release of payment based on ceilings. CAGD then instructs the central bank to release funds for goods and services and investment. This is not necessary for salaries as these are released automatically from the central bank to BMCs on a monthly basis upon instruction from MOF. BMCs provide quarterly cash plans that are guided by rules for reallocation. Within these rules, there is no need to involve MOF.

3.2.3 NATIONAL HEALTH INSURANCE FUND (NHIF)

As noted above, the NHIF is sourced primarily from a statutory 2.5 percentage points levy placed on VAT and a portion of the 2.0% social security contributions. These funds are earmarked for National Health Insurance Agency (NHIA) running costs and, most importantly, paying claims to facilities. The NHIF is approved by parliament but is not included in the budget ceiling of the MOH. This is because facilities reflect claims paid or due in their accounting as revenue (or arrears), as claims paid to facilities are

captured as IGFs at the BMC-level. The statutory fund is not part of the health sector allocation i.e. it is extra-budgetary in terms of the MOH budget. NHIA's main challenge is the timely receipt of tax revenue from MOF. Due to delays in these transfers from MOF, there are long delays in claims payments to BMCs, which has resulted in long arrears in recent years. From a PBB perspective, the administrative functioning of the NHIA itself sits within the sub-programme 1.3: Health Financing, Policy, Planning, Budget, Monitoring & Evaluation sub-programme, within programme 1: Management & Administration. However, as noted, this does not include any of the claims payments.

3.2.4 DONOR FUNDS

Donor funds are included in the MOH sector ceiling. Despite previous experience with a pooled approach to donor funding, these funds are heavily earmarked. The actual amount within the ceiling is often inaccurate as there is a difference between planned budget and how much the health sector actually receives. Further, while some of these funds are transferred to MOF with specific instructions, others go to the central bank or directly to BMCs. When a donor spends on behalf of an agency, this is accounted for within the ceiling even if there is no actual transfer. Donors can transfer funds directly to GHS or another agency and they do not have to flow through the MOF. One input that can always be identified in the annual budget is health commodities. This is because funding from the government budget for priority health products, such as vaccines and ARVs, are always earmarked and can clearly be identified. A major reason why budgets for health commodities are earmarked is because they represent either donor co-financing obligations or counterpart funding. These funds are not accounted for within GIFMIS.

4. PRIORITIES FOR NEXT PHASE OF IMPLEMENTATION

This section highlights five key priorities from this analysis for the next phase of implementation of PBB, namely:

1) Address continued dominance of inputs and line items
2) More strategic allocation of resources
3) Transition structure of PBB
4) Incorporate NHIA into PBB
5) Improve performance monitoring and accountability

4.1 ADDRESS CONTINUED DOMINANCE OF INPUTS AND LINE ITEMS

There was no significant change in the budget items in the transition from ABB to PBB (see table 6). As previously mentioned, this is mainly driven by the large percentage of the health sector budget that is dedicated to wages and salaries. As BMCs continue to prepare their budgets based on historical line items, largely comprised of fixed staff costs, there is little space to realign resources to match shifting resource priorities. This means that inputs continue to determine spending parameters, even if the budget's formulation has shifted to programmes, rather than programmatic targets and needs, i.e. input based budgeting remains the dominant form of budgeting in Ghana.

Though PBB provides better opportunities for enhancing the health budget, it has not been optimized to its advantage. PBB remains at the central MOH level and has not been decentralized to the agency level. Departments and agencies (including GHS

Table 6. Budget Components of Budget Items

2005 (pre-ABB)	Activity-based budget (ABB)	Programme-based budget (PBB)
Personal emolument	Personnel	Compensation of employees
Travelling and transport	Administration	
General expenditure	Goods & Services	Use of goods & services
Maintenance, repairs and renewals		
Other current expenditure		
Subventions		
Construction works	Investment	Non-financial assets (previously CAPEX)
Plant, equipment, furniture, and vehicles		
Other capital expenditure		

and districts) of the MOH are not preparing the annual budget in PBB format, rather they submit input-based information to MOH to be used to prepare the annual budget and report in line with the PBB. This realignment will be particularly relevant as Ghana enters a new phase of health sector reform by operationalizing its Universal Health Coverage roadmap. With a vision to establish a PHC-oriented system, that considers a universal, essential health services package, considerations around capitation payments and other output-oriented payment systems will require more flexible budgeting arrangements.

Providers and managers have not been given additional flexibility in allocating and managing resources with PBB. Enabling this shift would require allocating resources based on outputs. While managers and providers have flexibility in setting and moving outputs as part of the budgeting process, actual resources are not linked to these outputs. High-level permission is still needed to shift between input categories, and even with approval there is limited scope to do so given fixed wage bills and posts.

While the MOF, and even MOH, are not prepared to release funds based on budgetary programmes, additional flexibility can be introduced within the input-based system. This can be done both by increasing the flexibility around reallocations between BMCs or introducing greater accountability at BMC level to programme or sub-programme indicators. The incorporation of donor funds into a more flexible and less-heavily earmarked allocation process can also create greater flexibility at the BMC level to allocate funds across both budget and health programmes.

4.2 MORE STRATEGIC ALLOCATION OF RESOURCES

One of the main objectives of the transition to PBB was to improve resource allocation and use. Generally, overall government budget allocation to the MOH increases nominally each year. This did not change in the transition to PBB. One reason for this is that the *Public Financial Management Act, 2016* requires the Finance Minister to (by 30th of June of every year) issue budget preparation guidelines that include *"the ceilings on the required number of staff for each covered entity and the cost of appropriation for the relevant year for the public service"*.[10] As a result, of the three main budgeting inputs (Wages & salaries; Goods & services; and capital), compensation for personnel is budgeted first and other inputs are adjusted accordingly should compensation increase.

For example, the proportion of government budget allocated to the MOH for compensation increased in the period before and after the introduction of PBB. Proportional allocation of Goods and Services, however, reduced from 10% to 3% from 2013 to 2015 respectively. Proportional allocation to capital (investment) also reduced in the first year of the PBB and increased thereafter but not to the previous level.

There was no evidence during this study of the availability and use of a resource allocation formula for government budget by MOH. This may explain the reason why the change to PBB had no effect on the actual allocation of government budget to MOH

10 See section 20(2)(f) of the *Public Financial Management Act, 2016*

agencies. It would be expected that if the MOH had a resource allocation criterion, it would have influenced allocation using the structure of the PBB (which provides the opportunity for budgets to be allocated to priority areas).

4.3 TRANSITION STRUCTURE OF PBB

There is a need to continue to adapt the budgetary programme and sub-programme structure to reflect shifting priorities across the health sector over time. As a pilot sector, health has seen the structure of its PBB evolve. While there were six programmes in the pilot phase of PBB in health, there are now technically five as previously mentioned according to the 2019 – 2022 Medium Term Expenditure Framework and transitioning to four. This clearly indicates that the structure is still transitioning and may also evolve over time depending on other factors such as Ghana's disease burden or demography. It is critical that MOF allows for this evolution in practice to be reflected in MOH budgeting, to increase alignment in terms of PFM and to strengthen accountability and transparency.

4.4 ALIGN NHI AND PBB REFORMS TO ENABLE ACCOUNTABILITY AND FLEXIBILITY

The NHIA does not currently appear in the PBB in Ghana. Its administrative operations fall under one sub-programme; however, the revenues are considered extra-budgetary and outside the purview of health sector PBB. The NHIA budget is provided under statutory funds and is a bulk figure. The NHIA then breaks down the budget into categories which goes through a separate approval process by Parliament.

Table 7. Example of PBB log frame linking inputs, operations outputs and outcomes

Policy objective	Enhance national capacity for the attainment of the health related MDGs and sustain the gains
Strategy	Intensify and sustain Expanded Programme on Immunization (EPI)
Program	Health services delivery
Sub-programme	Primary and secondary Health Services
Outcome	Reduction in child death due to vaccine preventable diseases
Output	Increase in the number of children vaccinated against measles
Performance indicator for output	5,000 children vaccinated against measles
Operation	– Purchasing vaccines and equipment to administer vaccinations – vaccinations – Assigning and mobilizing health care professionals to administer the vaccinations
Input	– Vaccines – Syringes and alcohol swabs – SMS Service Provider – Health care professionals to administer vaccinations

Source: MOF revised PBB manual, 2018

Some programme commodities such as antimalarials are not directly reflected in the PBB when they are reimbursed by NHIS and procured by the health facilities. The budgets for antimalarials are embedded within the operations "*health commodities*" with no further sub classifications to identify it as antimalarials or separate it from other health commodities. This can create constraints in terms of aggregating expenditure items.

The introduction of PBB and NHI are mutually-reinforcing reforms, meant to more directly link resources with outputs. In the case of PBB, these are outputs from across the sector. For NHI, this directly links resources to services delivered. However, in both cases the objective has not been fully achieved, in part because of the previously mentioned continued dominance of line-item budgeting at the BMC-level, with limited flexibility, mainly due to the large share of the fixed wage bill. Reforms to the NHI will have direct implications for how the PBB is operationalized within the sector.

4.5 IMPROVE PERFORMANCE MONITORING AND ACCOUNTABILITY

GIFMIS integrates all financial records and controls for all GOG expenditures. On approval of cash plans and ceilings, MOF loads all cash ceilings into GIFMIS.[11] Sources of funds currently covered by GIFMIS include the consolidated fund (full); donor funds (partial); statutory funds (partial); IGFs (partial); and other public funds (partial). Currently, GIFMIS budget codes include all strategic planning, programmes, sub-programmes and input classifications. It is a pure accounting system that is drive by inputs. GOG general budget funds are represented in GIFMIS; however, donor funds are not yet accounted for in the system. There are efforts underway to support the implementation of GIFMIS for all funds in the public sector, including donor resources. This transition will need to take into consideration reporting requirements of donors.

Budget accountability refers to budget monitoring, reporting and evaluation. This process involves tracking MDA revenues and expenditure to ensure that revenue targets are met as well as expenditure ceilings are within projected limits. At the end of each quarter, MDAs prepare a budget performance report for MOF. The budget performance reports contain financial and non-financial information. Financial information includes cash flows, budget outturns and revenues. Non-financial information relates to performance of programmes and sub-programmes on their outputs and outcome indicators.

As it stands, while the PBB introduced performance monitoring, it is not actually enforced or used for accountability purposes. Monitoring largely happens at the MDA level, where CAGD is involved; however, there is little accountability at the level of BMCs. Their performance can only be captured in half year reviews and is not systematically followed up on.

Ultimately, the defining difference between ABB and PBB rests with the performance-orientation and monitoring. PBB links planned expenditures to measurable results. Setting and monitoring performance indicators for PBB should be seen as part

11 This is done across the following modules: accounts receivables; accounts payable; general ledger; purchasing; cash management; and fixed assets register.

of MDA's wider performance monitoring. Properly conceptualized performance indicators helped MDAs monitor and evaluate how budget programmes and budget sub-programmes are linked to their objectives (see table 7 for example). This logic can be further extended to lower levels of the health sector.

4.6 BUILD CAPACITY ACROSS SECTOR AND LEVELS OF GOVERNMENT

Ultimately the shift to using the PBB as a way to allocate and hold MDAs accountable for outputs and performance indicators requires capacity. This capacity building is not health specific, and should be coordinated across the entire public sector. This capacity building is not only part of the budgeting process, but relates to the broader objectives of the shift to PBB – how to match resources to policy priorities and outputs, improved management and coordination, shifting to accountability based on outputs and performance indicators rather than on inputs. The human capacity is currently in place in Ghana; however, concerted efforts need to be made to fully leverage and take advantage. This will require the MOH, along with other MDAs, to relinquish input controls themselves. The capacity building process will also play an important role in aligning donor funds with the overall PBB and GIFMIS expenditure reporting systems.

5. CONCLUSIONS

Though PBB provides opportunities for aligning budget allocations with sector priorities, it has not been optimized to its full capacity. In practicality the budgetary programme structure is used only at the central MOH level. All BMCs, including GHS, districts and providers, continue to prepare and account for their budgets based on inputs. Therefore, funds get locked by these input categories and at the level of BMCs. The central MOH then is tasked with copying and pasting input categories into the programme structure to submit to MOF. Through greater dissemination of programme-budgeting below the central MOH, and in particularly into the GHS, there is a greater likelihood that the more flexible budgetary programme logic will take hold across the sector. This can enable greater collaboration and coordination across disease programmes that sit within GHS, as well as with broader service delivery units. This shift may take additional training and capacity building to enable a full change in budgeting and planning logic.

The introduction of PBB has led to a greater performance orientation in terms of linking budgetary and non-financial health outcomes; however, the performance monitoring process in MOH and its agencies are delinked from the PBB process. All PBB reports have specific outputs and outcomes with targets linked to the budget. In practice, PBB is used to prepare the budget, while there is a separate system for performance monitoring (referred to as Holistic Assessment) related to budget implementation. Though some of the outputs and outcomes in the PBB are also in the Holistic Assessment, the two processes are not well-linked. In reviewing the performance monitoring framework, a focus can be placed on implementation and accountability. The structure that is in place and that has been coordinated across various government policy documents allowed for comprehensive and coordinated processes provides a basis to implement performance monitoring. The PBB (budget preparation and reporting) and the Holistic Assessment processes can be better integrated to strengthen performance monitoring process and also streamline processes and systems.

PBB has not increased flexibility with which budgets are actually spent. Funds are locked at the BMC level by input controls and it is difficult to reallocate across line items. As a result, budget execution remains a continued challenge in the sector. This lack of flexibility of public funds also gives undue weight to donor funds, as they are often the only discretionary funding that goes through the system. Often this funding is earmarked for specific diseases and is purely coordinated with disease operators/implementers. By enabling flexibility across BMCs to reallocate across line items, particularly in relation to IGFs. This may also include a review of BMC structures, particularly in relation to disease programmes, to enable more coordinated budgeting approaches.

The budgeting process is a critical enabler as Ghana continues to reform, update and improve its health financing system as a critical lever to make progress towards UHC. As these changes are made, the structure of the budget, as well as how it is ultimately implemented, should reflect policy priorities and needs within the sector. This requires flexibility, accountability and rigorous needs-based analysis.

ANNEXES

ANNEX 1: MDA PLANNING AND BUDGETING CYCLE

Timeline	Description
January	Review macroeconomic framework and prepare budget calendar
February	Publish and circulate the budget calendar
March – April	Update of macro-fiscal framework; Prepare and finalize BFSP with proposals for three-year ceilings to the Office of the President
May	MOF issues budget guidelines for MDAs
June	MDAs review policies and expenditure priorities during budget preparation workshops
July	MOF update and reviews macroeconomic framework
July	Draft revenue and expenditure estimates by MDAs and inputs into the statement and economic policy
August	Pre-budget policy statement prepared and presented to Cabinet
September	Pre-budget policy statement presented to Parliament
November	Budget statement and economic policy presented to Parliament
December	Parliament debates budget statement and enacts the Appropriation Bill

ANNEX 2: PBB PERFORMANCE MEASUREMENT

Performance Measure	Description
Outcomes	Defined as the intermediate outcomes – more precisely, the broader changes brought about by service delivery programmes upon individuals, social structures, or the physical environment
Outputs	Represents what will be achieved from a set of activities
Types of Outputs	Change in the quantity of output
	Change in the quality of output
	Change in efficiency with which that output has been achieved
Resources	Measure of what is required to carry out the budget operations

REFERENCES

1. Dovlo D. Health sector reform and deployment, training and motivation of human resources towards equity in health care: issues and concerns in Ghana. Thailand: Human Resources for Health Development Journal; 1998; 2(1). (http://www.moph.go.th/ops/hrdj/Hrdj_no3/table_contents.html, accessed 19 April 2021)

2. Wang H, Otoo N, Dsane-Selby L. Ghana National Health Insurance Scheme: Improving Financial Sustainability Based on Expenditure Review. Washington (DC): World Bank; 2017; doi:10.1596/978-1-4648-1117-3

3. Cashin C, Bloom D, Sparkes S, Barroy H, Kutzin J, O'Dougherty S. Aligning public financial management and health financing. Geneva: World Health Organization; 2017 (https://apps.who.int/iris/handle/10665/254680, accessed 19 April 2021)

4. Barroy H, Dale E, Sparkes S, Kutzin J. Budget matters for health: key formulation and classification issues. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/273000, accessed 19 April 2021)

5. Odogu T. A Comparative Study of the Adoption and Implementation of Medium Term Expenditure Framework by Ghana and Nigeria. Accra: University of Ghana; 2015 (http://ugspace.ug.edu.gh/handle/123456789/22548, accessed 19 April 2021)

6. Betley M, Bird A, Ghartey A. Evaluation of Public Financial Management Reform in Ghana, 2001–2010. Final Country Case Study Report. Stockholm: Sida; 2012 (https://publikationer.sida.se/contentassets/b0f20fff813949a4a393097c70709c1c/15196.pdf, accessed 19 April 2021)

7. Robinson M. Program Classification for Performance-Based Budgeting: How to Structure Budgets to Enable the Use of Evidence. IEG Evaluation Capacity Development. Washington (DC): World Bank; 2013 (https://openknowledge.worldbank.org/handle/10986/21767, accessed 19 April 2021)

8. Yeboah S.K. Public Sector Financial Management Reforms in Ghana: The Case of Ghana Integrated Financial Management Information System (Gifmis). Accra: University of Ghana; 2015 (http://197.255.68.203/handle/123456789/21315, accessed 19 April 2021)

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