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FINANCIAL MANAGEMENT MECHANISMS TO SUPPORT INCREASED GOVERNMENT SPENDING ON HEALTH

September 2018

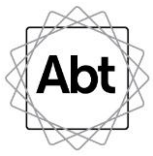
This publication was produced for review by the United States Agency for International Development (USAID). It was prepared by John Yates and Darrell Freund for the Health Finance & Governance Project.

Health Finance & Governance Project
USAID's Health Finance & Governance (HFG) project helps to improve health in developing countries by expanding people's access to healthcare. Led by Abt Associates, the project team works with partner countries to increase their domestic resources for health, manage those precious resources more effectively, and make wise purchasing decisions. As a result, this six-year, $209 million global project increases the use of both primary and priority health services, including HIV/AIDS, tuberculosis, malaria, and reproductive health services. Designed to fundamentally strengthen health systems, HFG supports countries as they navigate the economic transitions needed to achieve universal healthcare.

Cooperative Agreement No: AID-OAA-A-12-00080

Submitted to: Scott Stewart, Agreement Officer's Representative, Office of Health Systems, Bureau for Global Health, USAID

Recommended citation: Yates, John, Darrell Freund. 2018. Date. *Financial Management Mechanisms to Support Increased Spending on Health.* Bethesda, MD: Health Finance & Governance Project, Abt Associates



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DISCLAIMER

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ACRONYMS

COTS	Commercial-off-the-shelf
DRM	Domestic resource mobilization
GFMIS	Government financial management information system
HFG	Health Finance & Governance
LIC	Low-income country
LMIC	Low- and middle-income country
M&E	Monitoring and evaluation
MOF	Ministry of Finance
MOH	Ministry of Health
MTEF	Medium-term expenditure framework
PEFA	Public expenditure and financial accountability
PFM	Public financial management
TSA	Treasury single account
UHC	Universal health coverage
USAID	United States Agency for International Development
VAT	Value-added tax

ACKNOWLEDGMENTS

The authors would like to acknowledge Catherine Connor, Sharon Nakhimovsky, Peter Vaz, and Julia Watson from Abt Associates and Jeremy Kanthor from DAI Global LLC (DAI) for their guidance and feedback throughout the process.

EXECUTIVE SUMMARY

Many low- and middle-income country (LMIC) governments have made political commitments to move toward universal health coverage (UHC) to provide affordable and quality health services to all, including the poor and vulnerable. To make progress toward UHC, however, LMIC governments need more money for health and to spend it more efficiently. This policy paper explains how public financial management (PFM) mechanisms can be used to help countries achieve the goal of UHC. Health system stakeholders in LMICs should learn how PFM works because PFM mechanisms can be used to help advocate for additional spending. PFM reforms are often in the interest of health system stakeholders, since they help improve efficiency of PFM, advocate for health sector spending priorities, and promote budget transparency.

While LMIC governments have increased funding for the health sector over the past decade, more public resources will be required to reach any reasonable definition of UHC. To put the situation into perspective, government spending on health for select low-income countries (LICs) ranged from $2 to $41 per capita in 2015, while total spending on health per capita ranged from $17 to $107, with much of it coming from donor assistance and out-of-pocket payments (WHO 2018). While funding UHC in these countries remains a daunting task, PFM mechanisms can support efforts to increase this funding. This paper seeks to answer questions governments and donors are asking, including: What PFM mechanisms should be used to improve the chances that the health sector benefits and realizes the sustained investments over time necessary to pursue UHC?

This paper introduces an analytic framework for assessing PFM mechanisms. Providing a consistent framework for assessing PFM mechanisms makes it easier to understand their scope, complexity, interrelationships, and linkages. The framework covers the current state of PFM and an "end state"—or ideal state at maturity—in LMICs, roles of key actors, necessary preconditions for reforms, options and steps for implementation, and potential challenges and risks. The paper then describes the government financial management information system (GFMIS) and its role in expenditure management. Next, the paper explains the importance of revenue forecasting in determining the overall budget envelope that constrains government spending. Then both medium-term budgeting and performance budgeting processes are described as the key areas where health system stakeholders should engage in PFM processes and may influence the budget allocations for public health. Lastly, the paper highlights the potential role of earmarking to ensure that sufficient government funds are allocated to public health. Justifying increased government health spending will ultimately come down to the government's public health goals and the demonstrable results achieved from government health spending.

GFMISs are government accounting software packages for managing all types of government accounting transactions. LMICs need to have a functioning GFMIS to manage government finances effectively. GFMIS is also needed to use other PFM mechanisms. With a properly functioning GFMIS in place, LMICs can control payments, track expenditures, develop realistic budgets, and share government spending information to improve accountability and transparency. While GFMIS is a critical system for PFM, implementing it has proved challenging in many LMICs, due to limited functional capabilities, long delays, and poor data quality. To address these challenges, LMIC governments may need to replace their GFMIS, provide their staff with better training on how to use the systems, and otherwise enhance data quality.

While revenue forecasting may not appear to be a PFM mechanism, it plays a critical role in determining the resource envelope for total government spending and setting budget ceilings on government ministries and agencies. Ministries of Finance (MOFs) perform revenue forecasts to provide guidance to revenue authorities on revenue collection targets and to support the budgeting process. In many LMICs, the sophistication of revenue forecasts remains low and should be improved. Inaccurate revenue forecasts create confusion and uncertainty when budgeting, regardless of whether the forecasts are too high or low. Low forecasts mean more funds were available than anticipated, while high forecasts cause funds to be reshuffled, potentially negatively impacting government health spending. Significant human capacity needs to be developed in LMICs to improve their revenue forecasting capabilities.

Budgeting mechanisms represent the key area where health system stakeholders can influence the level of spending on public health. While most LMICs have introduced some form of medium-term planning and budgeting, these LMICs, and donors providing them with technical assistance, should assess how well these PFM mechanisms perform because they provide a foundation for more advanced budgeting techniques. Program- and performance-based budgeting represent direct opportunities for Ministries of Health (MOHs) and other government health agencies to advocate for increased spending on public health. Using performance-based budgeting, MOHs design programs to achieve specific public health goals and estimate the costs of their various programs to come up with a comprehensive health sector budget. Contrary to more traditional line-item budgeting, performance-based budgeting provides the opportunity for MOHs to make their case more objectively for increases in government health spending by linking spending directly to health program goals and results. While many of the ingredients for performance-based budgeting exist in LMICs, they rarely have been implemented robustly or at scale. LMICs need to improve human capacity in performance-based budgeting, develop better monitoring and evaluation (M&E) capabilities, and enhance the quality of the data that feeds the process. As MOHs participate directly in government budgeting, they should be early adopters working with MOFs to implement budgeting reforms because public health can be a direct beneficiary of more objective, accountable, and transparent budgeting.

Recognizing that general budgeting processes entail significant political risk for government health spending, earmarks may be considered to protect government health funds. While known for their rigidity and distortive effects on budgeting, continued use of earmarks demonstrates the desire of governments to protect funding for specific government priorities. For health funding, significant amounts of stable revenue must be collected, which impacts the selection of revenue source for earmarking. While other approaches to funding health may be preferable, earmarks may be needed and should not be ignored as an approach to ensure public health funding.

In summary, improving expenditure management, revenue forecasting, budgeting, and earmarking can improve the efficiency, equity, and accountability of health spending. These mechanisms may be used to help maximize the benefits of health spending and aid in justifying health budget allocations, providing assurance that additional resources will be well used. While LMIC health stakeholders and development partners working with them generally recognize the need for and value of these PFM mechanisms, they often do not know how to use them to their best advantage, nor do they understand the desired end state for efficient and effective PFM performance. While MOFs have a vested interest in expenditure-side PFM reforms, MOHs and other health stakeholders may not recognize the extent to which they also have an interest in accelerated PFM reforms.

1. INTRODUCTION

1.1 Problem Statement

Many LMIC governments have made political commitments to move toward UHC to provide affordable and quality health services to all, beginning with the poor and vulnerable. To make progress toward UHC a reality, however, governments need more money for health and to spend it more efficiently. Aligning health goals and objectives articulated in a country's strategy for UHC with budgeting and revenue collection is one important way governments can do this. This paper explains how PFM mechanisms can be used to help countries channel increased revenues to achieve the goal of UHC.

While governments have increased funding for the health sector over the past decade, more public resources will be required to reach any reasonable definition of UHC. To provide context, total health spending doubled in real terms in LICs between 1995 and 2010 and increased by 80 percent in LMICs, notwithstanding the global financial crisis (Fleisher et al. 2013). However, when looking at government spending on health as a percentage of total government spending—or as a percentage of gross domestic product or on a per capita basis from 2010 to 2015—the results are mixed. For example, out of 30 LICs, only 17 increased government health spending as a percentage of total government spending during this period (see appendix A). To put the situation further into perspective, government spending on health for the selected LICs ranged from $2 to $41 per capita in 2015, while total spending on health per capita ranged from $17 to $107, with much of it coming from donor assistance and out-of-pocket payments. While funding UHC in these countries is a daunting task, PFM mechanisms can be used to maintain progress toward UHC and achieve specific health goals and outcomes along the way.

As countries galvanize around the goal of UHC, a parallel global agenda, the 2015 Addis Tax Initiative, seeks to support countries in increasing their domestic resource mobilization (DRM) to support development objectives. Research has shown that as tax revenue increases, initially public investments in health also increase. However, over time, experience shows that increases in overall revenue does not result in commensurate rates of health investments (Soe-Lin et al. 2015). While other research has examined additional sources of new revenue for health (Nakhimovsky et al. 2014), this paper seeks to bridge the knowledge gap between the financial resources required for UHC and country and donor efforts to support increased DRM. As overall financial resources increase due to DRM, what mechanisms exist to improve the chances that the health sector benefits and realizes the sustained investments over time necessary to pursue UHC?

Government revenue and expenditure trends in LMICs clearly indicate that demand exceeds domestic public spending for health at a time when the sustainability of donor support looks less certain. Health stakeholders in LMIC governments must understand and properly utilize PFM mechanisms to manage health expenditures efficiently, transparently, and accountably and advocate for and justify increased allocation of budget resources to the health sector. Beyond the mechanics of budgeting, health system stakeholders also need to recognize the inescapable political dynamics that affect the budget elaboration and approval process (Rajan et al. 2016). To this end, health policy makers and other stakeholders must learn to advocate effectively for government health goals and objectives, negotiate with other government agencies on spending priorities, and identify potential opportunities for reallocating resources to health (Cashin 2016).

1.2 Purpose, Audience, and Structure

Many publications already provide guidance on PFM processes and reforms generally, and others focus on the health sector. This paper adds to the existing literature by making the linkage between PFM reforms and the need in LMICs to increase public spending on the quantity and quality of health coverage as domestic resources increase. Policy makers can use this paper to assess current PFM mechanisms and gauge how they can and should be improved to benefit the health sector. Other health system stakeholders, including development partners, think tanks, and broader civil society interested in DRM and PFM for health, can benefit from a better understanding of PFM and how to advocate for PFM reforms that will help to justify greater and sustained investments in health and contribute to better health outcomes.

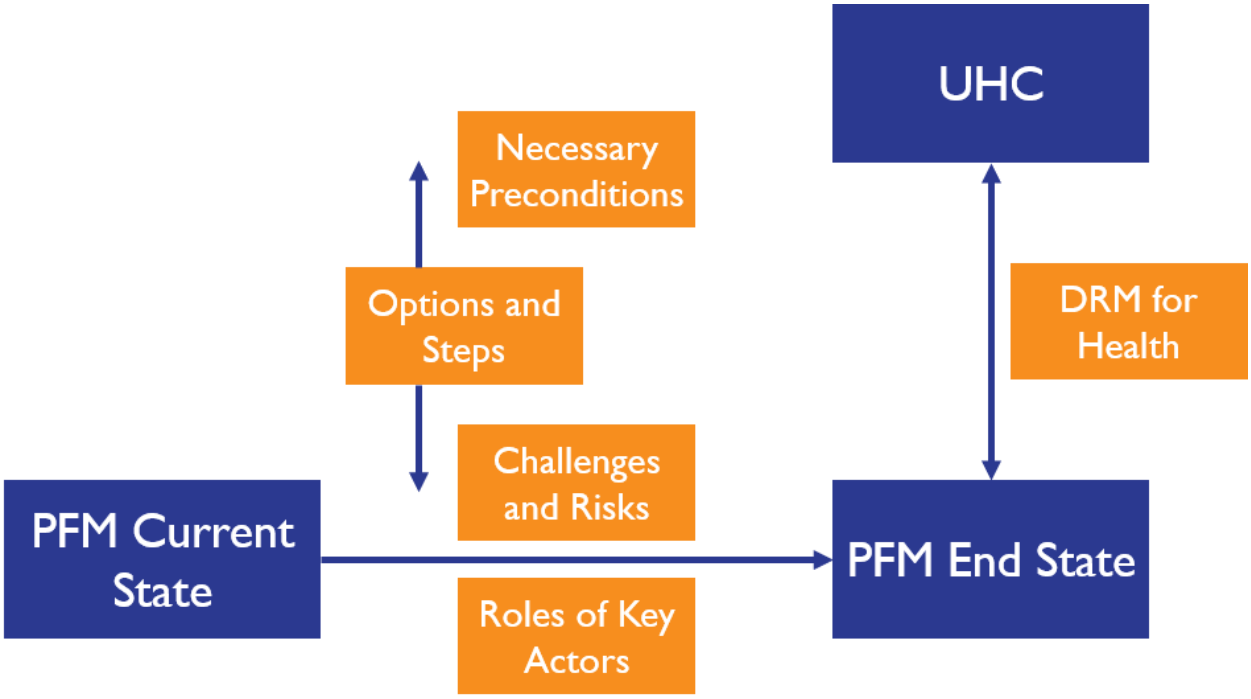
The paper highlights the following five PFM mechanisms:

1. GFMIS as a tool for expenditure management
2. Revenue forecasting in terms of determining the overall budget envelope that constrains government spending
3. Medium-term budgeting as a process where health system stakeholders may influence the budget allocations for public health
4. Performance budgeting as a tool to better articulate results to promote greater public investment in the health sector
5. The potential role of earmarking to ensure that sufficient government funds are allocated to public health

2. ANALYTIC FRAMEWORK FOR ASSESSING PFM MECHANISMS FOR DRM

Providing a consistent framework for assessing the status of PFM expenditure mechanisms makes it easier to understand their scope, complexity, interrelationships, and linkages with DRM processes. The discussion of PFM mechanisms is organized around an analysis of current conditions in LMICs compared to the general characteristics of a well-functioning PFM system—the desired end state. The role of key actors and the different pathways to move from current conditions to the desired end state are then discussed. Figure 1 depicts the framework, including the PFM current and end states, roles of key actors, necessary preconditions, options and steps, and challenges and risks.

Figure 1: Analytic Framework for Assessing PFM Mechanisms



2.1 Current State in LMICs

For each PFM mechanism assessed, the framework starts with a general description of the current state of the PFM expenditure mechanism in LMICs, including the types of PFM reforms that should be expected. Health system stakeholders in LMICs should contextualize where they are regarding PFM reforms relative to where they need to be to continue securing additional health investments to advance

toward UHC. A 2011 analysis of public expenditure and financial accountability (PEFA) assessment [1] results concluded that LMICs have made substantial progress formalizing PFM mechanisms through legislation and policy but have lagged on implementing and extending them throughout government. These conclusions impact the health sector of LMICs because PFM mechanisms that have not been implemented provide minimal value to health system stakeholders trying to influence government health spending decisions.

2.2 Characteristics of Desired End State

The desired end state for PFM reforms to support the health sector will vary from country to country but may also have shared characteristics across countries. When describing the characteristics of desired end states for specific PFM mechanisms below, the analysis focuses on implementation issues, including how interrelationships with other PFM mechanisms affect how the health sector benefits from increased DRM.

2.3 Roles of Key Actors

Fully understanding the roles of key actors in the implementation of related PFM reforms will increase the likelihood that health system stakeholders can influence government decisions and improve the efficiency and accountability of government health spending. The key actors involved in making decisions on government health spending and fulfilling those commitments typically include legislative bodies, the cabinet, finance ministries (or departments), health ministries, other health agencies, and revenue authorities. The roles of these actors are discussed in section 2.3 and summarized in Appendix B. Key actors will have direct roles in some processes while being beneficiaries or interested parties in others. For example, MOHs have a direct role negotiating their budgets and are better positioned for this if they understand clearly how the overall budget is formulated and priorities are set (Cashin 2016).

2.4 Pathways to Achieving Desired End State

Health system stakeholders in LMICs, as well as development partners, need guidance on the potential pathways toward implementing PFM reforms that will help them achieve their goal of increasing government health spending. This paper describes pathways for implementing PFM mechanisms and reforms, using the structure below to explain necessary preconditions, options, and steps to reach the desired end state and likely challenges and risks that may be encountered.

Necessary preconditions: Implementation of PFM mechanisms and reforms will require that necessary preconditions are met. Some necessary preconditions focus on the legal and regulatory framework, while others require functioning operational systems and human capacity development. For example, efficient and effective government expenditure control requires adoption of legislation and regulation, functioning information systems, and trained staff. For the PFM processes and reforms described below, this report highlights the necessary preconditions for health system stakeholders to have more credibility when advocating for reforms that support their interests.

[1] A PEFA assessment is a tool for assessing the status of public financial management. A PEFA assessment provides a thorough, consistent, and evidence-based analysis of PFM performance, using a consistent list of key indicators at a specific point in time. The PEFA methodology can be reapplied in successive assessments to track changes over time (https://pefa.org).

Options and steps to reach desired end state: Because there is not one path for implementing PFM mechanisms and reforms, health system stakeholders should understand the options and key steps and how they potentially affect the public health sector. This paper describes different options and steps based on practical implementation experience on donor projects and examples highlighted in the literature. When appropriate, this paper provides guidance to stakeholders on different options or on specific steps that are required for successful implementation of PFM reforms.

Challenges and risks: Like other government reforms, PFM reforms face challenges and risks, and health system stakeholders should be aware of them and their potential impact on the public health sector. This paper highlights challenges and risks based on practical experience and examples from the literature. For PFM reforms, health systems stakeholders should bear in mind that political, institutional, operational, and human capacity challenges and risks abound.

3. PFM EXPENDITURE REFORMS

Health system stakeholders should recognize that there is an overtly political dimension to public spending decisions. From this perspective, arming stakeholders with knowledge of PFM mechanisms can help them present objective arguments for the need to increase government health spending as government revenue increases. In LMICs, national development strategies often provide an opportunity to establish important and specific health goals and targets, along with other country goals and objectives. These health goals and objectives should be directly and explicitly linked to expenditure management, government budgeting, and government accountability and transparency. Achieving public health goals and objectives in LMICs cannot be separated from the need for greater government health spending, and this paper provides guidance on PFM mechanisms that can help justify spending to achieve these goals.

3.1 Justification for Increased Spending on Health

Strong arguments for increasing spending on health exist and can be justified in many LMICs. On humanitarian and moral grounds, all people should have access to quality healthcare. Unfortunately, health and economic resources are not distributed equally around the world, thus limiting access to quality healthcare for much of the world's population. When making the case for increased government health spending, health system stakeholders should consider their political environment, link spending to national development goals, and use PFM mechanisms to make the case for additional health spending.

3.1.1 Political Dimension

Health system stakeholders in LMICs must understand the political realities in their countries, and the case for spending scarce resources on public health must be made relative to other government priorities, including education, the military, public infrastructure, social welfare, and subsidies. To put this in perspective, the share of government spending in Sub-Saharan Africa for health from 2006 to 2011 was 10.6 percent; for education was 17.8 percent; and for the military was 10.5 percent, compared to the global average of 11.4 percent for health, 15.6 percent for education, and 8.8 percent for the military (Tandon et al. 2014). In the debate, the case can be made that the health sector in many LMICs lacks sufficient funding for UHC even at a basic level. Furthermore, health costs continue to rise inexorably as life expectancy increases and medical treatment options expand. Nonetheless, increasing government spending on health as a percentage of total spending faces challenges. In 2001, the Abuja Declaration called for Sub-Saharan African countries to allocate at least 15 percent of their budgets to healthcare, but 15 years later only Botswana, Burkina Faso, Malawi, Niger, Rwanda, and Zambia have met this commitment and none of them provides universal access to basic healthcare (Africa Renewal Online 2016–2017). Clearly, the case for increasing spending on health relative to other government services must still be made.

3.1.2 Link with National Development Strategies

National development strategies present an excellent opportunity for health system stakeholders to advocate for increases in government health spending. In fact, many LMICs develop these types of strategies either with the assistance of donors or on their own. The objective of these strategies is to

promote key indicators for the countries to reach on their social and economic development path, as well as describe specific programs or planned interventions. Liberia's Agenda for Transformation: Steps Toward Liberia Rising 2030, for example, includes priority health sector interventions for construction of health facilities; training of specialized healthcare workers; procurement of essential drugs, medical supplies, and equipment; and provision of comprehensive coverage for basic emergency obstetrics, newborn care, and prevention of mother-to-child HIV transmission (Republic of Libera 2012). Egypt's Sustainable Development Strategy: Egypt Vision 2030 provides broader indicator targets for health, but they can still be used to advocate for sufficient public health funding, and the vision strategy also describes specific health programs designed to achieve Egypt's targets. Indicators in Egypt's Vision 2030 include life expectancy, maternal mortality rate, child mortality rate below 5 years old, per capita health expenditure, out-of-pocket health spending as a percentage of total health spending, and the percentage of citizens covered by social health insurance (Arab Republic of Egypt 2016). From a PFM perspective, the specificity of these country strategies and vision documents helps support PFM because the interventions can be easily costed and prioritized to ensure budgetary funding.

3.1.3 Using PFM Mechanisms to Advocate for Health Spending

PFM mechanisms can be used to make the case for increased spending for public health. Properly using these mechanisms provides structure and a degree of objectivity to explain the need for additional public health expenditures, design and prioritize programs to achieve specific health outcomes, estimate costs for programs, build up a public health budget, develop indicators to monitor the public health sector's progress, and advocate for government health spending. To be effective advocates, health system stakeholders in LMICs, particularly officials in MOHs and other government health institutions, need to learn how to leverage these mechanisms to their advantage. During the budget process, for example, public health officials participate directly in government spending decisions and use PFM mechanisms to develop the public health budget in coordination with their MOF. In this situation, they will be in a stronger position to negotiate if they understand the overall budget formulation process and can identify potential government spending areas to reallocate to health (Cashin 2016). To advocate better for government health spending, health system stakeholders in LMICs should have the incentive to learn how to use the PFM mechanisms described below more effectively.

3.2 PFM Mechanisms

In the following section, five PFM mechanisms (GFMIS, revenue modeling and forecasting, medium-term planning and budgeting, program and performance-based budgeting, and earmarking) are presented using the framework of the current conditions, characteristics of a well-functioning PFM system, and the roles of key actors and possible pathways a country may use to close the gap. Health system stakeholders will be familiar with some of these PFM mechanisms but probably not others. Part of the benefit of this paper is showing the linkages among PFM mechanisms so that health system stakeholders understand these interrelationships and thus the bigger picture. The interrelationships and interactions of these mechanisms are described from the perspective of what LMIC health stakeholders and development partners should understand to reach the desired end states, including the roles of key actors in PFM reforms. Successfully implementing PFM reforms in LMICs to go from their current state to desired end states provides the foundation in terms of mechanisms to advocate for and justify appropriate levels of spending on public health.

3.2.1 Government Financial Management Information Systems

GFMISs are government accounting software packages for managing all types of government accounting transactions. Core functionality includes a chart of accounts, accounts receivable, accounts payable, and the general ledger. Additional modules may include payroll, asset management, cash management, budget preparation, and contracts. Implementation of a GFMIS is one of the first steps in effectively managing government finances, and a GFMIS is also needed to use many of the other PFM processes described below. MOHs and other government health agencies will use the GFMIS for recording their accounting transactions and can monitor health spending against government budgets commitments. Without a properly functioning GFMIS, actual health spending cannot be properly tracked, and tracking health expenditures supports expenditure management, spending analysis, and budgeting, as well as promoting transparency. While the GFMIS may seem to be only an MOF concern, a lack of transparency on government expenditures weakens the position of MOHs in budget negotiations due to a lack of information (Cashin 2016).

Current State in LMICs

Most LMICs have implemented some form of GFMIS because it is a basic requirement for governments to manage their finances. However, the state of implementation can vary widely. Some LMICs have implemented commercial-off-the-shelf (COTS) systems, while others have custom-developed systems. Two popular COTS systems implemented in LMICs include FreeBalance and Oracle. A 2012 World Bank report on PFM in the Middle East and North Africa warns governments and donors to be wary of large financial management information systems. While these systems can provide great benefits in terms of extending accounting functionality to line ministries, supporting internal controls and compliance, and facilitating timely and accurate consolidated financial reporting, implementation in Yemen, Iraq, Egypt, Syria, and Jordan all ran into substantial implementation challenges and delays, resulting in most cases in partial implementation and significant data quality issues (Beschel and Ahern 2012). Common reasons for poor implementation include lack of alignment between processes and the system, over-customization of COTS systems deviating from the original design and contributing to quality control issues, poor or ineffective training of users, and insufficient technical support from the software provider and/or implementer.

A couple of consistent issues emerge in addition to implementation delays and limited functionality. GFMISs should be rolled out to line ministries and their extended operations or spending units around a given country but often are not in LMICs. Reasons for this include poor internet connectivity, limited infrastructure and equipment, limited human capacity in less urbanized areas, and high licensing costs when COTS systems are implemented. The treasury single account (TSA) reform has also been initiated in many LMICs, but it often remains incomplete for extended periods of time. The TSA reform creates one virtual spending account within the GFMIS for managing government expenditures and payments instead of having spending units manage their own bank accounts and balances, thus centralizing control over expenditures and improving the efficiency of cash management. Implementation of TSA benefits governments because it frees up cash, facilitates improved cash management, lowers potential borrowing costs, reduces bank transaction costs, and allows for spare cash to be invested and earn a return.

Counterintuitively, custom-developed government accounting systems[2] have had their share of successes, including in Ecuador, El Salvador, Georgia, Guatemala, and Ukraine (Khan et al. 2010). The key reason for these successes comes down to local resources being able to enhance and maintain the software systems they have developed. Custom-developed software for government systems has often turned out to be more sustainable than COTS in LMICs because financial resources for maintaining and supporting high-cost COTS software are extremely limited in comparison to high-income countries, and LMIC governments are often unable or unwilling to finance these support costs. Nonetheless, every LMIC will face different situations and will need to evaluate whether a COTS or custom-developed system is best in their situation.

Characteristics of Desired End State

The characteristics of the desired end state for GFMIS in LMICs include: 1) all central government financial transactions going through the GFMIS; 2) line ministries, including the MOH, using the system directly for processing their payment requests; 3) a high level of data quality; 4) timely and complete government financial reporting; and 5) full implementation of TSA. Central governments need to manage finances efficiently and effectively, have robust expenditure controls in place, and maintain complete records. For MOHs, maintaining proper information is of particular importance because government health budgets are often not fully spent (Rajan et al. 2016). Implementing a comprehensive GFMIS will allow all central government financial transactions to be captured in one system, including budgetary and extra-budgetary funds. To improve efficiency and recording accuracy, GFMISs should be extended to key locations in line ministries instead of having line ministries use their own systems or send data using programs such as Excel to the MOF. Consistency in the implementation of GFMISs and training will improve data quality and support periodic financial reporting requirements for governments. While capturing and maintaining proper financial records is valuable in and of itself, GFMISs also support much needed budget transparency on actual versus budgeted government expenditures.

Roles of Key Actors

The key actors for implementation of GFMISs include MOFs and line ministries, including MOHs, funded by the central government. The MOF will implement the GFMIS and provide training and support to the line ministries, while the line ministries are users of the system. By using the GFMIS, line ministries help ensure that proper financial records are maintained for the entire central government. In addition, the TSA reform highlighted above would be implemented by the MOF, using the GFMIS as the tool that manages government accounts as one virtual account.

Necessary Preconditions

GFMIS implementation can be very expensive, so the initial precondition is to have the financial resources or access to donor support to pay for it. Beyond the initial costs, ongoing maintenance and support costs must be planned for and can be very high, especially when implementing COTS systems. LMIC governments, however, need to bear in mind that the costs associated with GFMIS implementation delays can easily be higher than maintenance and support costs. Having qualified information technology staff at the MOF is another precondition because staff will provide day-to-day support to keep the system running and guide users in line ministries. The last key precondition for GFMIS is to have professionally trained government accountants. In their absence, financial transactions will be processed incorrectly, and data quality in the GFMIS will suffer. Limited financial skills of

[2] These systems may not be fully comparable to a COTS GFMIS in terms of modules or functionality, but they can serve the basic purpose of managing government accounting records.

accountants in line ministries often contribute to GFMIS implementation delays and data quality problems.

Options and Steps to Reach Desired End State

Implementing a GFMIS should be a priority, if a LMIC has not already done so, but in most cases, the question will be whether to replace the existing financial system. Regardless, the importance of having a robust GFMIS should not be understated because it is needed for supporting many of the other PFM mechanisms described below. Regarding options for implementing GFMIS, custom development of software or procurement of a COTS system are the two basic choices. Both have advantages and disadvantages, and selecting the right approach will depend on conditions found on the ground. GFMIS implementation is extremely complex, and the cost of poor or failed implementation can mount quickly.

Challenges and Risks

As GFMISs are large, complex financial systems, substantial financial risks exist if the system fails or does not meet expectations. Software companies know how to protect themselves from unexpected costs by strictly delineating services and system requirements. Anything out of scope or unanticipated will normally be deemed a change order and come at additional cost. With COTS systems, LMIC governments need to plan for licensing, maintenance, and support costs that can be very expensive relative to other MOF expenses. MOFs should be very careful not to underestimate implementation costs or the project schedule.

3.2.2 Revenue Modeling and Forecasting

MOFs and revenue authorities develop revenue models and conduct forecasts for budget planning and revenue monitoring purposes. From the budgeting perspective, revenue forecasts play a key role in guiding a country's overall budget ceiling. LMICs face substantial limitations on their ability to borrow money, and their budgets will be constrained by their ability to collect revenue and any budgetary assistance provided by donors. The overall budget ceiling established by the MOF will correspond to the domestic revenue target plus any other source of funds for LMICs, such as direct budget assistance, loans from multilateral institutions, direct government-to-government loans, bonds sold on international markets, and royalty fees from extractive industries. For MOHs and other health agencies, uncertainty about their budgets creates a challenging environment for proper planning, especially for multiyear programming. Due to its importance in determining the overall budget ceiling for central governments, health system stakeholders should have a basic understanding of revenue modeling and forecasting and how they support government budgeting.

Current State in LMICs

Due to data quality and human capacity constraints, LICs tend to use subjective assessments and simple extrapolation techniques as the main methods for deriving revenue forecasts (Kyobe and Danninger 2005). Limited automation, poorly implemented information systems, and insufficiently trained system users contribute to data quality problems in LMICs, hampering the use of more advanced forecasting techniques. Revenue models and forecasts require substantial amounts of high-quality, time-series data to generate robust accurate revenue forecasts, especially if statistical methods and econometrics are used. Recent experience on USAID's Revenue Generation for Governance and Growth in Liberia corroborates the conclusions above about poor-quality data, given that only limited tax data are available from 2016 and 2017. The lack of quality data, at least in LICs, damages the integrity of forecasts and can negatively impact the budgeting process due to uncertainty about the overall budget ceiling.

Characteristics of Desired End State

More accurate revenue forecasts lead to better budget planning and preparation, and therefore, LMICs should invest in developing more sophisticated and accurate revenue forecasting models. Revenue forecasting starts with a macroeconomic model typically based on econometric analysis of macroeconomic indicators to estimate economic growth—a significant driver for revenue collection. Other models, such as microsimulation and computable general-equilibrium, support analysis of policy options by allowing policy parameters to be changed and then computing the impact on government revenue. With robust data, these models can also estimate the distributional effects of proposed changes in tax policy, such as changing tax rates, thresholds, deductions, and exemptions, and the potential impact on economic growth. Computable general-equilibrium models can be particularly valuable when advocating for public health funding because they can incorporate the potentially positive impact on economic growth of having healthier and more productive workers. Because the accuracy of revenue forecasts are critical for health planning, MOH and health system stakeholders should advocate for MOFs to adopt more advanced revenue forecasting techniques as their capacity improves.

Roles of Key Actors

MOFs normally develop revenue forecasts, although tax authorities may also engage in some forecasting activities. Because the skills for revenue forecasting are highly sophisticated, MOFs often create specialized macro-fiscal policy units to develop and maintain these types of models. For the MOH, the main impact of revenue forecasting comes down to the budget envelope, which is based on the revenue forecast. Once the budget envelope is set, line ministries negotiate for their shares of the budget. Similarly, the revenue forecast informs the revenue target provided to the revenue authority. While the MOF typically generates the revenue forecast, the data come from the revenue authority, and the line ministries and revenue authority are all impacted by the revenue forecast in terms of budget negotiations.

Necessary Preconditions

The preconditions for robust revenue modeling and forecasting focus on information systems and human capacity. Revenue models require high-quality time-series data or the sophistication and accuracy of the models will suffer. Tax and customs information systems are the primary sources of revenue data for forecasting central government budgets. These systems must be properly implemented and utilized to ensure high levels of data quality. Even with access to sufficient amounts of high-quality data, the staff developing models must have the right education and training. Advanced degrees in economics are required, with strong backgrounds in mathematics and statistics. In addition, staff will need proper training in revenue modeling techniques, including hands-on experience. Due to the specialized skills required for revenue modeling, MOFs often create macro-fiscal policy units to house the function and staff. Meeting these preconditions will significantly improve revenue forecasts and lead to more reliable budgeting, which benefits public health planning and spending.

Options and Steps to Reach Desired End State

To reach the desired state, information systems that capture revenue data must be implemented and functioning well. In LMICs, problems with existing revenue information systems may mean that they need to be replaced. Implementing e-filing can also help because the responsibility to submit data is shifted to taxpayers, and validation controls can be added to reduce data quality problems. Once these systems are functioning well, additional effort should be put into data cleansing. Processes and procedures should be developed and implemented to evaluate data quality and take appropriate steps to improve it. With access to high-quality data, the focus should shift to improving the knowledge and skills of staff developing the revenue models through formal education, practical training, and experience.

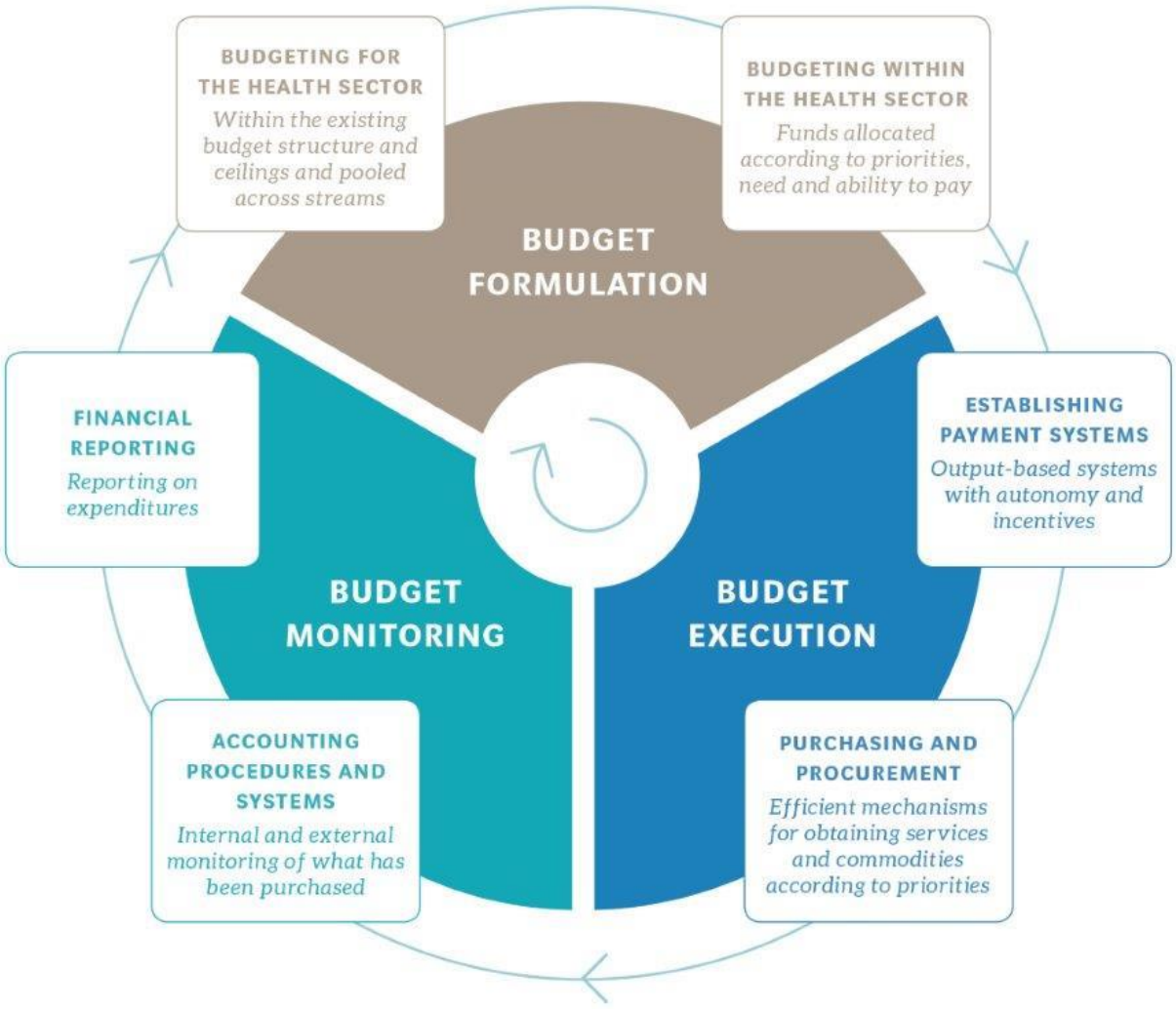
Challenges and Risks

In LMICs, the main challenges encountered with revenue modeling and forecasting stem from challenges implementing revenue information systems, poor-quality data, and limited staff capacity. These challenges can result in models and forecasts with low levels of accuracy, rendering them almost unusable for budget forecasting. However, MOFs in these environments need to keep in mind that resolving this kind of systemic and capacity issues takes time, and thus they must continue down the path of improving systems and developing human capacity. The primary risk from inaccurate revenue forecasting for public health stakeholders is that the budget envelope will be inaccurate, which will in turn adversely affect planning and budgeting for public health.

3.2.3 Medium-Term Planning and Budgeting

As the overall resource envelope grows, it is incumbent upon the MOH to develop strong justifications for increased investments in public health to achieve UHC. With robust accounting systems implemented, financial controls in place, and records properly maintained, the focus for PFM shifts to budgeting processes. Implementing a GFMIS, as described above, improves expenditure controls and recordkeeping, supporting more robust PFM reforms. As annual line-item budgeting is the most rudimentary budgeting approach, this section describes the next logical step in budget reforms—medium-term budgeting. Figure 2 provides an overview of the standard budget cycle as a reference when discussing the current state and characteristics of the desired end state for LMICs.

Figure 2: An Overview of the Budget Cycle



Current State in LMICs

Planning and budgeting in many countries became bureaucratic processes driven by deadlines and continuing down the same path every year (Schick 2001). The simplest form of a government budget can be created by identifying major line-item expenditures and determining annual increases or decreases for them. Since expenditures for major cost areas tend to be consistent year over year, this approach has some logic, especially for line items (such as salaries) that drive overall government expenditures. While this approach will sustain government agencies that can then set their planning agenda and spending priorities, it does not provide for strategic planning, nor account for medium-term expenditure commitments for large capital projects or multiyear health programs.

Attitudes toward planning and budgeting began to change in the 1950s and 1960s, when many countries in Africa and Asia gained independence. These newly independent states, in a desire to provide basic services to their people, adopted national development planning systems that were inspired by India. The systems typically comprised five-year plans and dual budgets: one for recurrent expenditures like goods and wages, and a second for development or capital projects (Stevens 2004). Although a

significant step forward, budgeting reforms continued to evolve in wealthier countries, specifically in relation to performance-based budgeting described below, while they tended to stagnate in poorer countries.

Characteristics of Desired End State

An annual perspective is too short when many government programs and projects have costs and benefits that extend over many years (Brumby and Hemming 2016). This is particularly the case for MOHs or government entities that are responsible for developing, delivering, and monitoring complex health programs and services. For health programs, the inputs required and the duration can be hard to estimate, especially with disease epidemics and outbreaks; but nonetheless, MOHs will need to estimate these costs. For infrastructure projects, such as building health facilities, costs can also be hard to estimate accurately, and cost overruns can hurt budget planning and execution. Designing effective health programs and estimating their costs represent key challenges for public health funding. LMICs need to move toward better coordinated top-down and bottom-up budgeting, as explained below.

Top-down budgeting determines whether there is enough money in a budget to meet the service delivery and development priorities of a community or stakeholder. It is at this point in the budgeting process that the government (national and/or subnational) relies on a medium-term revenue forecast[3] to determine sector or ministry ceilings (Oxford Policy Management 2003). The top-down approach to budgeting, when combined with the bottom-up approach to budgeting, can be an effective way to align planning and budgeting, particularly if all stakeholders have the capacity to understand their roles and responsibilities in advocating for or preparing the budget (King and Keun-Park 2006).

Bottom-up budgeting describes another process that line ministries and government agencies use to develop their proposed budgets. The MOF will estimate budget ceilings, provide guidance and templates for budgeting, and oversee the process, but the line ministries and agencies develop their own budgets. Bottom-up budgets are put together by reviewing and analyzing past line-item expenditures and specific projects and programs to come to a total budget request. Tight coordination among the MOF, line ministries, and subnational governments provides the structure to smooth out the process and improve the accuracy and dependability of government budgets.

Roles of Key Actors

The MOF manages the budget process and coordinates its development with line ministries and other government agencies. On the MOF side, the overall budget ceiling is set, and this leads to proposed ceilings for the ministries and agencies. On the line ministry and agency side, proposed budgets are developed, including estimates for line items, as well as building up estimates for medium-term projects and programs. From there, the negotiations among the ministries begins, and the ministerial cabinet will agree on a proposed government budget. Ministries will tend to ask for a certain percentage increase with the expectation that it will be cut back arbitrarily. This leads to negative behaviors where ministries ask for more than they need due to the expectation of arbitrary cuts. Once the negotiations are completed, the budget will normally be submitted to the parliament or legislative body for adoption.

Necessary Preconditions

Like other PFM processes, medium-term planning and budgeting require high-quality data. Data for planning projects and programs and historical expenditure data are required. Data for planning purposes will come from numerous sources, including official government databases, and impact the accuracy of

[3] Medium term, for the purposes of public sector planning and budgeting, varies among countries and usually means a time period of three to four years.

medium-term cost estimates. Historical expenditure data are used to assess ongoing costs, such as labor and consumables. The requirement for high-quality historical expenditure data to support the budget process is an argument for implementing a robust GFMIS.

Sufficient human capacity needs to exist for health system stakeholders to navigate the budget process effectively and advocate for their position. The primary challenge comes from the planning side because estimating costs for health programs and major projects can be difficult, and inaccuracy can throw off the budget with expenditures typically coming in at higher than expected levels. With guidance from the MOF, human capacity should be developed in MOHs through recruitment of staff with the right education, background, and experience and by conducting effective training in cost estimation methodologies and the overall budgeting process.

Options and Steps to Reach Desired End State

Budget reforms have been implemented around the world, so the pathways for the reforms are well understood. However, LMIC governments often claim to be much farther ahead on budgeting reforms than they really are because promoting reforms is much easier than implementing them (Ronsholt 2011). The medium-term expenditure framework (MTEF) can be a useful guide for implementing budget reforms, but stakeholders should keep in mind that implementations of MTEF vary significantly in their completeness and effectiveness. The MTEF provides a methodology for developing medium-term budgets based on a set structure of budgetary documentation. MTEF reforms can continue for many years, or even be restarted years later, due to deficiencies that are identified. Implementation of program- and performance-based budgeting described below occurs toward the end of the full implementation of MTEF. Health system stakeholders in LMICs should initially focus on medium-term planning and budgeting and improving their ability to negotiate budgets before focusing too much on downstream reforms, covering program- and performance-based budgeting.

For budget preparation, some GFMISs will include budgeting modules that can be implemented to construct government budgets and track actual against planned expenditures. Although COTS GFMISs are large, complex, and expensive, incorporating budgeting capabilities provides substantial benefits for government accounting. Automation of budgeting processes makes budget preparation upstream and tracking of expenditures downstream much easier because actual expenditures can easily be matched to planned expenditures. If a country implements a COTS GFMIS, it should consider implementing a budgeting module to improve efficiency and promote budget transparency

Challenges and Risks

Budgeting is inherently a political process, so negotiations present a significant amount of risk. The health sector is in a better position to negotiate during the budget process if there is a clear understanding of how the overall budget is formed and priorities are set (Cashin 2016). The scope in LMICs for increasing the health sector's share of total government expenditures will be limited because all line ministries will be negotiating for scarce funds.

High levels of donor assistance may present an additional challenge. Perceptions of high inflows of development assistance to the health sector can weaken the negotiating position of the sector in the budget process. In 2015, none of the LICs highlighted in Appendix A covered more than 50 percent of total expenditures on health. Because other line ministries and agencies see these large inflows, they can argue to reallocate spending away from health, since much of its funding comes from external sources. In LMICs, aid to health has been found to be the most fungible in comparison to other sectors, that is, the most likely to be offset by reductions in the sector budget (Farag et al. 2009).

3.2.4 Program- and Performance-Based Budgeting

Program-based budgeting focuses on tracking the funding for all programs within a budget to better control costs. Performance-based budgeting builds on program budgeting by adding performance indicators that monitor program performance. The question should not just be if spending is within budget, but rather if public spending achieved the desired results within budget. Performance-based budgeting links money with results by encouraging policy makers and managers to set targets, prioritize programs, measure indicators, and monitor performance, while flexibly responding to new priorities or circumstances. Implementing these reforms can be challenging in LMICs, due to weak information systems, poor data quality, and a lack of human capacity. Health system stakeholders in LMICs, however, have a strong incentive to implement program- and performance-based budgeting because this approach helps justify proposed budgets based on the estimated cost of achieving specific health goals and outcomes. Implementing the approach should also increase transparency, as government can use it to show the link between taxpayer funds and the results or outcomes from public services. For health system stakeholders, the ability to tie results to spending is crucial to making the case for increased spending on public health.

Current State in LMICs

Traditional approaches to government budgeting have focused on inputs and incremental changes in budget allocations. In addition, government budgets tended to include classifications that grouped items or inputs by cost centers or departments. This approach, commonly found in LMICs, offers simplicity because it does not require government officials to think strategically. If expenditures are consistent over a few years or more, decision makers need only to anticipate how much money they will need in the next fiscal year based on historical spending trends. Implementing more robust budgeting techniques, like performance budgeting, however, looks more like a spectrum as opposed to a clearly defined endpoint.

Many LMICs have been following the MTEF and are moving toward performance budgeting, but most do not have the main ingredients in place to satisfy key preconditions and effectively implement the reform. For example, while the government of Nepal has moved toward performance-based budgeting and sets concrete annual goals, it still lacks effective expenditure controls and suffers from rudimentary and inconsistent budgeting processes. The absence of a robust accounting system, including formal procedures, a functioning information system, and trained accountants is likely to lead to loss of expenditure control and contribute to budgeting challenges (Allen 2009).

Characteristics of Desired End State

Performance-based budgeting sets clear performance targets that governments expect to achieve. Because line ministries, including the MOH, implement their budgets under a programmatic structure, they are encouraged to take a medium-term outlook on targets that may take several years to achieve. The ability to shift funds from programs that are on track, or should be modified or abolished, to programs that may not achieve targets with current allocations increases flexibility and improves prioritization. Since line-item budgeting accounts only for cost categories—such as salaries, medical equipment, and medicines—it is difficult to measure the incremental impact line-item budgeting has on social sector performance targets for outputs and outcomes (Brumby and Hemming 2016). Performance-based budgeting, however, allocates funds to programs that produce outputs and contribute to desired outcomes that can be measured. Following this approach, line ministries can better prioritize their spending as they are pressured to improve the efficiency and effectiveness of their services.

Performance targets and indicators play a critical role in performance budgeting because program spending is linked to the achievement of measurable goals and objectives. After implementation of performance-based budgeting, spending in health should become more stable and reliable, since spending is guided by strategic priorities with a longer-term focus and is closely monitored (Grigoli et al. 2012).

Roles of Key Actors

To implement performance-based budgeting, the MOF will take the lead role in defining the process and guiding line ministries on its implementation. Line ministries and other government agencies will develop their proposed budgets, following MOF guidelines, and engage in budget negotiations, based on the results they expect to achieve with their proposed budgets. Health system stakeholders have a vested interest in demonstrating the results from government health spending and, therefore, should advocate for performance-based budgeting and position themselves as early adopters for implementation.

Necessary Preconditions

Performance-based budgeting comes at the end of expenditure management and budgeting reforms, and therefore most of the preconditions described above for other PFM reforms would be preconditions for performance-based budgeting. Multiyear budgeting for programs, however, stands out as the key precondition for performance-based budgeting. Implementation of GFMIS is also very important to accurate expenditure information for budget preparation. Revenue forecasting has a role because performance-based budgeting still requires guidance on budget ceilings for line ministries. Training will also be required to increase human capacity, since performance-based budgeting is rarely well implemented in LMICs. Notwithstanding preconditions, performance management for programs can be introduced at a rudimentary level at almost any time and would still provide benefits to LMICs.

Enhanced M&E capacity will be needed in most LMICs. Setting targets and identifying measurable indicators to help manage government programs more effectively will help LMICs prioritize spending programs and manage for results. Training will be necessary, since many line ministries will not have sufficient M&E skills to support the introduction of even rudimentary performance-based budgeting. In addition, databases for targets and indicators should be developed, implemented, and maintained. To implement performance-based budgeting successfully, improved M&E processes and skills will be required in most LMICs.

Options and Steps to Reach Desired End State

During program design, targets and indicators should be used to help evaluate the success of government programs, moving LMICs toward implementing performance-based budgeting. To get to the desired end state, expectations should be realistic because the preconditions are critical and budgeting reforms build on each other before the full benefits of performance-based budgeting can be realized. Nonetheless, some form of performance-based budgeting can be implemented once multiyear program budgeting is functioning to increase the discipline over government spending programs and better monitor program performance. To formalize the reform process and add rigor, the MTEF describes the main steps in the process required to reach the end goal of performance-based budgeting, although following the MTEF does not indicate the level of sophistication that may be achieved (World Bank 1998)[4]. Reverting to the analogy of a spectrum, LMICs should continue to enhance their budgeting capabilities regardless of where they fit on this spectrum.

[4] This source provides a thorough description of the MTEF as well as other available literature.

Challenges and Risks

Many of the challenges and risks of other budget reforms described in this paper apply to program- and performance-based budgeting. Particularly, poor data quality creates challenges due to requirements to monitor spending and performance. For both planning and budgeting, poor data can lead to incorrect assumptions and suboptimal decisions. In addition, LMICs face the challenge of developing robust M&E processes and rarely have systems in place for capturing and analyzing indicator information. Successfully implementing even a rudimentary version of performance-based budgeting can help LMICs improve the effectiveness of government programs and the efficiency of public spending through better program prioritization. Furthermore, limited staff capacity also leads to associated challenges and risks, especially for program- and performance-based budgeting because these include more advanced techniques and approaches. Nonetheless, LMICs need to work with the data they have, continually improve information systems and data quality, and enhance budgeting processes when they can.

Program- and performance-based budgeting add value by providing a framework for analyzing programs and shifting the focus of budgeting away from historical spending patterns toward prioritizing and measuring government spending for results. For public health, program- and performance-based budgeting can contribute to a more objective analysis of benefits and results, justifying increased spending for the sector. Notwithstanding the value of program- and performance-based budgeting, health system stakeholders should keep in mind that budgeting remains an inherently political process, and they will need to continue to advocate for their position, including using program- and performance-based budgeting to help make their case.

3.2.5 Earmarking

While processes described above support the general budgeting process and can help provide objectivity to prioritize government expenditures, earmarks may be used to allocate funding directly to the public health sector. As there is already significant literature on earmarking for health (Cashin et al. 2017), this section provides a summary of key factors. Enacting earmarks ensures that funding is provided for a specific purpose and can be part of a budget resolution adopted by the legislative body or can be enacted as separate legislation. An advantage of earmarks is that funding can be set aside for the medium term to support spending priorities, providing certainty that funding will be available. For public health, this may mean earmarking specific taxes or a portion of tax receipts, such as a value-added tax (VAT), excise tax, and personal and corporate income tax, or earmarking wage withholdings for health insurance programs. Both taxes, while relatively stable compared to other revenue sources, do fluctuate with the economy. Any form of earmarking is at risk of not generating additional health funding because government funds are fungible (Barroy et. al. 2018). As a result, the MOF can offset the earmarked health funds with a reduction in the general health budget. When earmarking payroll taxes for health entails a tax increase, there is a risk to the formal economy. Both employer and employee seek to avoid paying higher taxes, so a higher payroll tax risks expanding the informal economy at the expense of the formal economy (Froelich et al. 2014). Finally, if earmarked tax revenues go only to a particular risk pool (e.g., a social health insurance program only for formal sector workers), then this fragments risk pooling and likely excludes populations most in need of coverage. Strengths and weaknesses exist for using earmarks versus general budgetary funds, and LMICs will need to assess their own situation to determine the approach, including possibly a mix of earmarks and general budgetary funds, that will work best in their situation.

Current State in LMICs

Expenditure earmarks can improve accountability, enforce priorities, and help ensure that health funds are allocated efficiently within the overall budget, while revenue earmarks can be used to raise additional

funds from a particular source and elevate the priority of health services and programs over other spending priorities (Cashin et al. 2017). Although approaches to funding public health services vary widely, LMIC governments generally use a mixture of revenue earmarks on different types of taxes, such as excise and payroll taxes, instead of expenditure earmarks for government health spending.

The most widely used earmarks for public health identified in more than 60 countries come from payroll or income taxes to fund social health insurance (Cashin et al. 2017). Many LMICs, such as Egypt, El Salvador, Philippines, and Tanzania, use payroll taxes to some degree to fund public health programs, including different forms of national health insurance programs. Ghana and Chile provide good examples of earmarking VAT for public health, with Ghana earmarking 2.5 percent of the 17.5 percent VAT rate for the National Health Insurance Authority, and Chile earmarking 1 percent of VAT to finance a set of guaranteed basic health services (Cashin et al. 2017). While earmarked payroll taxes and VAT may provide substantial sources of revenue to fund public health, other sources of revenue may still need to be considered to bridge the gap in public health funding in LMICs.

In the search for additional sources of revenue, excise taxes, applied to a wide array of goods, including luxury goods, petrol, tobacco products, and alcohol, provide another opportunity to earmark revenue. From a health policy perspective, LMICs may consider earmarking "sin" taxes to offset the additional health costs caused by using unhealthy products, such as tobacco, alcohol, and sugary beverages, and to discourage unhealthy behaviors. While an attractive approach, expectations should remain realistic in terms of the additional revenue that can be generated from sin taxes, due to declining revenue if the taxes are effective in discouraging bad behaviors. Other risks include the rise of black markets for highly taxed items and demand for noncommercial alternatives such as *home brew* alcohol that can be toxic.

Characteristics of Desired End State

The desired end state of employing earmarks is to contribute to a consistent and sustainable level of revenue for UHC while mitigating the risks associated with different earmarks. Earmarking of general budgetary funds can support UHC, but LMICs can combine general budgetary funds with earmarked revenue sources, such as payroll and sin taxes. While the revenue collected from earmarked sources may be sufficient to support specific programs, they will be insufficient for funding UHC goals.

Roles of Key Actors

Parliaments or other legislative bodies enact earmarks to ensure funding for specific purposes or programs. MOFs will still influence the tax policy that generates the needed revenue and oversee its collection by the revenue authority. Changes in tax policy, such as changes in tax rates, the tax base, deductions, and exemptions, are normally proposed by the MOF and adopted in revised legislation.

Necessary Preconditions

From an administrative perspective, earmarks do not explicitly require preconditions. Progress toward UHC requires substantial funding, which has often led to the decision to implement social health insurance programs funded through earmarks on payroll taxes. This, however, relies on formal employment levels being sufficient to fund the health insurance program, a precondition not met by many LMICs (Wagstaff 2009)[5].

[5] Social health insurance re-examined. Adam Wagstaff. First published: 27 April 2009

Options and Steps to Reach Desired End State

Legislative bodies deliberately enact earmarks to set aside funding for a specific purpose or program. To reach the desired end state, legislative bodies need a clear understanding of what they are trying to achieve and to what degree the earmarked funding will contribute to their goals. In this case, the goal is UHC, but the basket of services covered by UHC needs to be defined. Due to limited domestic resources, LICs cannot realistically provide more than basic care to all their citizens. From this perspective, plans for implementing UHC, however it is defined, need to be developed along with reasonable indicators to measure their implementation.

Challenges and Risks

Earmarking has its place but is often perceived as a blunt instrument used to overcome weak budgeting processes. For health financing, earmarks may introduce rigidity and inefficiencies by worsening fragmentation of risk pools of health funds, limiting flexibility in setting priorities, and even slowing responsiveness to emerging health threats or crises (Cashin et al. 2017).

4. CONCLUSION

This paper describes the PFM mechanisms used to allocate government funds to public health and explains the role MOHs and other health agencies can play in influencing budget decisions in the context of increasing government revenue. While PFM mechanisms can be used to support objective arguments for spending priorities, health system stakeholders should bear in mind the inherently political nature of deciding government spending priorities. MOHs and health agencies are in competition with other line ministries and government agencies. Donors also have a stake in seeing LMICs implement sustainable budget processes as they seek to reduce direct budgetary support. To make their case more compelling, health system stakeholders should learn how the main PFM processes work and how to use them to their advantage.

4.1 Guidance for Public Finance Professionals

Beyond the need to track and analyze expenditures, governments must evaluate the results from health spending and seek opportunities to improve its efficiency and effectiveness. From a budgeting perspective, program- and performance-based budgeting provide techniques to measure and manage government expenditures associated with UHC and focus on results. The MOF leads the budget process and will work with line ministries, including the MOH, to develop their budgets. In LMICs that have not yet implemented performance-based budgeting, a significant opportunity exists to align budget allocations with key government priorities, often expressed in country development strategies. By focusing on goals and results, the case can potentially be made through the development of program budgets to increase spending on health in relation to other spending priorities.

When funding from general revenue sources regularly come up short, politicians and public finance professionals may consider earmarks to contribute additional funding to the health sector. To determine the source of earmarked funds, the MOF will use its revenue forecasts to conduct analyses and share this information with the legislative body that will adopt the earmark. When earmarks are used, health system stakeholders should monitor the collection of earmarked funds, since revenue agencies focus on meeting top line targets provided by the MOF, not collection by type of tax. Although MOFs hold sway over financial decisions because they control government finances, they must work hand in hand with the MOH to help ensure that adequate funding is provided to achieve the government's public health goals.

4.2 Guidance for Public Health Professionals

Health sector actors benefit from learning PFM mechanisms to help them make the case for additional government health spending. PFM reforms implemented by the MOF may be perceived to be outside of the purview of the health sector but can have profound impact when successfully implemented. Implementing a GFMIS, for example, improves health expenditure control through improved records and greater transparency, while improved revenue forecasting provides greater budget certainty for better health planning. Performance-based budgeting provides an opportunity for public health officials to argue their case for sustainably allocating additional funds to public health, especially as additional revenue becomes available. Through the process of performance-based budgeting, programs are designed to meet government goals and targets, and then the costs of these programs are estimated and

can be used to justify budget allocations. This process provides greater clarity on the spending required to meet government goals, as opposed to more rudimentary line-item budgeting.

If a country is not currently using performance-based budgeting, the MOH should be an early adopter and advocate for this reform. Because budgeting is inherently a political process, health system stakeholders may also advocate for earmarks to ensure that sufficient funding is allocated for public health. Public health professionals can use this paper to gain a better understanding of how key PFM mechanisms work, what the roles of MOHs and other government health agencies are in these processes, and how to use these mechanisms to advocate for additional government health spending.

APPENDIX A: HEALTH SPENDING IN LOW-INCOME COUNTRIES 2010–2015

	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015
Country	**Health Expenditure as Percentage of GDP**	**Health Expenditure as Percentage of GDP**	**Health Expenditure per Capita in US$**	**Health Expenditure per Capita in US$**	**Percentage Government Health Spending vs. Total Health Spending**	**Percentage Government Health Spending vs. Total Health Spending**	**Government Health Expenditure as Percentage of GDP**	**Government Health Expenditure as Percentage of GDP**	**Government Health Expenditure per Capita in US$**	**Government Health Expenditure per Capita in US$**	**Percentage Government Spending on Health of Total Budget**	**Percentage Government Spending on Health of Total Budget**
Afghanistan	8.6	10.3	46	60	5.5	5.2	0.5	0.5	2	3	2.3	2.0
Benin	4.1	4.0	31	31	24.1	20.1	1.0	0.8	8	6	4.9	3.4
Burkina Faso	5.9	5.4	34	33	24.9	28.2	1.5	1.5	8	9	5.8	7.2
Burundi	11.3	8.2	26	24	17.6	38.8	2.0	3.2	5	9	4.9	11.8
Cambodia	6.9	6.1	54	71	19.7	22.1	1.4	1.3	11	16	6.8	6.6
Central African Republic	3.8	4.8	17	17	21.8	12.8	0.8	0.6	4	2	4.4	4.1
Chad	4.1	4.6	36	36	20.9	23.5	0.8	1.1	8	8	3.5	6.3
Comoros	8.7	8.0	67	59	8.8	13.4	0.8	1.1	6	8	3.4	3.8
Congo	2.0	3.4	55	59	44.7	43.2	0.9	1.5	25	25	4.2	3.1
Eritrea	3.7	3.3	18	31	20.6	23.0	0.8	0.8	4	7	1.9	1.8
Ethiopia	5.5	4.0	17	24	17.3	26.9	1.0	1.1	3	7	5.2	6.0
Gambia	5.7	6.7	32	32	32.1	46.6	1.8	3.1	10	15	7.8	10.6
Guinea	4.4	4.5	20	25	12.7	17.1	0.6	0.8	2	4	1.9	2.7
Guinea-Bissau	6.2	6.9	34	39	16.6	31.3	1.0	2.2	6	12	5.5	9.5
Haiti	10.2	6.9	69	54	5.7	10.7	0.6	0.7	4	6	2.5	3.3
Kenya	6.4	5.2	62	70	27.7	33.1	1.8	1.7	17	23	7.3	6.3
Kyrgyzstan	7.1	8.2	63	92	48.2	44.9	3.4	3.7	30	41	9.2	9.9
Liberia	10.0	15.2	33	69	12.2	7.4	1.2	1.1	4	5	3.7	2.7
Madagascar	5.4	5.2	22	21	40.7	45.2	2.2	2.4	9	10	15.5	15.6
Malawi	7.2	9.3	33	34	22.0	28.6	1.6	2.7	7	10	6.5	10.8

	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015
Country	**Health Expenditure as Percentage of GDP**	**Health Expenditure as Percentage of GDP**	**Health Expenditure per Capita in US$**	**Health Expenditure per Capita in US$**	**Percentage Government Health Spending vs. Total Health Spending**	**Percentage Government Health Spending vs. Total Health Spending**	**Government Health Expenditure as Percentage of GDP**	**Government Health Expenditure as Percentage of GDP**	**Government Health Expenditure per Capita in US$**	**Government Health Expenditure per Capita in US$**	**Percentage Government Spending on Health of Total Budget**	**Percentage Government Spending on Health of Total Budget**
Mali	4.4	5.8	31	42	14.6	16.5	0.6	1.0	5	7	3.2	4.5
Mozambique	5.1	5.4	21	28	7.9	8.1	0.4	0.4	2	2	1.4	1.2
Myanmar	1.9	4.9	15	59	9.6	23.0	0.2	1.1	1	14	1.2	4.9
Niger	6.2	7.2	22	26	26.2	21.0	1.6	1.5	6	5	8.1	4.6
Rwanda	9.3	7.9	55	57	18.1	21.4	1.7	1.7	10	12	7.0	6.2
Sierra Leone	9.2	18.3	37	107	13.4	9.0	1.2	1.6	5	10	6.1	7.9
Tajikistan	5.8	6.9	43	63	21.9	28.2	1.3	1.9	9	18	4.9	6.1
Tanzania	8.1	6.1	36	32	27.8	35.3	2.3	2.2	10	11	7.3	7.4
Togo	6.3	6.6	31	37	26.5	28.0	1.7	1.9	8	10	7.4	5.7
Uganda	10.7	7.3	63	46	13.5	13.4	1.4	1.0	8	6	7.5	5.6

Source: World Health Organization. 2018 Global Health Expenditure Database. http://apps.who.int/nha/database/ ViewData/Indicators/en. Accessed July 25, 2018.

APPENDIX B: KEY ACTOR ROLES SUMMARY

		Roles of Actors				
		GFMIS	**Revenue Modeling and Forecasting**	**Medium-Term Planning and Budgeting**	**Program- and Performance-Based Budgeting**	**Earmarking**
Kay Actors	**MOF**	Implements GFMIS and provides training and support to line ministries. Implements TSA in context of GFMIS.	Conducts revenue forecasts, often in specialized macro-fiscal policy unit. Works with central bank to develop consensus macro forecasts to parameterize revenue models.	Manages budget process and coordinates with line ministries and other government agencies. Sets budget ceiling and proposes ceilings for line ministries.	Takes lead role in defining the process and guiding line ministries in its implementation.	Influences tax policy that generates revenue, including tax rates, tax base, deductions and exemptions. Oversees collection by the revenue authority.
	MOH/Line Ministry	Maintains financial records for line ministries, including MOH, processed in GFMIS.	Negotiates for share of total budget forecast by the MOF.	Develops proposed budgets, including estimates for line items and medium-term programs and projects.	Develops proposed budgets based on guidance from the MOF. Line ministries, including MOH, set performance targets to measure and demonstrate results from government spending.	
	Revenue Authority		Tracks revenue collection targets determined by MOF receipts forecast. Provides data to MOF to support forecasting function. Negotiates for share of total budget forecast by MOF.	Maximizes revenue collection based on revenue targets determined by MOF when preparing the revenue forecast and negotiating the budget with line ministries.	Maximizes revenue collection based on revenue targets determined by MOF when preparing the revenue forecast and negotiating the budget with line ministries.	Collects revenue for public health.
	Supreme Audit	Accesses GFMIS to conduct government financial audits.			May conduct performance audits on programs to assess, if programs achieved their goals.	
	Legislature	Accesses data through committees to understand how budget is actually spent versus planned spending.	Accesses forecast information in relation to budget envelope.	Adopts annual government budgets, including budget earmarks.	Adopts annual government budgets, including budget earmarks, and may set some performance targets.	Enacts legislation to ensure funding for specific purposes or programs, including national health insurance programs.

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