

# Public Financial Management, Health Governance, and Health Systems



October 2017

Marshalling the  
Evidence for Health  
Governance

Thematic Working  
Group Report

## ACKNOWLEDGMENTS

The preparation of this report has been a group effort. The authors thank the members of the Marshalling the Evidence Secretariat for their guidance and comments on earlier drafts and the PFM thematic working group for its input to frame PFM and health, suggestions of literature and key informants, and comments on each draft. We thank our key informants for taking the time to share their perspectives and suggestions for additional research studies to consult. We thank USAID and WHO for their support of this contribution to health governance.

This publication was produced for review by the United States Agency for International Development. It was prepared by the **PFM Thematic Working Group**.

Annie Baldrige<sup>1</sup>, Elizabeth Elfman<sup>2</sup>, Eunice Heredia-Ortiz<sup>3</sup>, H el ene Barroy<sup>4</sup>, Karima Saleh<sup>5</sup>, Catherine Connor<sup>6</sup>

<sup>1</sup> Health Finance and Governance Project, DAI

<sup>2</sup> Health Finance and Governance Project, DAI

<sup>3</sup> Health Finance and Governance Project, DAI

<sup>4</sup> World Health Organization

<sup>5</sup> World Bank

<sup>6</sup> Health Finance and Governance Project, Abt Associates

The Health Finance and Governance (HFG) project (2012-2018) is funded by the U.S. Agency for International Development under Cooperative Agreement No: AID-OAA-A-12-00080. HFG is implemented by Abt Associates in partnership with Avenir Health, Broad Branch Associates, Development Alternatives, Inc. (DAI), Johns Hopkins Bloomberg School of Public Health (JHSPH), Results for Development Institute (R4D), RTI International, and Training Resources Group, Inc. (TRG).

The views expressed in this report are solely those of the authors and should not be attributed to the funders.



# CONTENTS

Acronyms .....	ii
Introduction .....	1
Background and Purpose .....	1
Conceptual Framework .....	2
Scoping Review Methodology .....	9
Summary of Key Findings.....	13
What is PFM?.....	13
Generating and Managing Revenue for Health.....	13
Budgeting and Public Expenditure Management (PEM) in Health.....	16
Budget Execution.....	19
External Audit and Parliamentary Oversight .....	25
Fiscal Decentralization and Local Governance .....	26
Implications for Policymakers.....	31
How to increase funding for health.....	31
How to make government health spending more accountable and responsive .....	32
Gaps .....	33
Annex A: References in alphabetical order.....	35
Annex B: Key informants .....	41

## List of Tables

Table 1: Causal Pathway of Health Governance Activities .....	3
Table 2: PFM Conceptual Framework: Mapping PFM Interventions to Health System Performance.....	5
Table 3: Distribution of Articles by PFM Area.....	12
Table 4: Country Tax Capacity, Effort, and Corresponding Revenue Collected by Country Income Level.....	14

## List of Figures

Figure 1: Overall Health Governance Framework (S. Bennett, 2014).....	3
Figure 2: Literature Flow Chart .....	12



---

## ACRONYMS

<b>ABF</b>	Activity-Based Funding
<b>BRICS</b>	Brazil, Russia, India, China, South Africa
<b>DALY</b>	Disability-Adjusted Life Year
<b>DRG</b>	Diagnosis-Related Group
<b>FBO</b>	Faith-Based Organization
<b>GDP</b>	Gross Domestic Product
<b>GRB</b>	Gender Responsive Budgeting
<b>HFG</b>	Health Finance and Government
<b>IFMIS</b>	Integrated Financial Management Information System
<b>IMF</b>	International Monetary Fund
<b>IPSAS</b>	International Public Sector Accounting Standards
<b>LMIC</b>	Low and Middle Income Country
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MOF</b>	Ministry of Finance
<b>MOH</b>	Ministry of Health
<b>MtE</b>	Marshalling the Evidence
<b>MTEF</b>	Medium-Term Expenditure Framework
<b>NGO</b>	Non-Governmental Organization
<b>NHA</b>	National Health Accounts
<b>ODI</b>	Overseas Development Institute
<b>OECD</b>	Organization for Economic Cooperation and Development
<b>P4P</b>	Pay-for-Performance
<b>PBB</b>	Program-Based Budgeting
<b>PBF</b>	Performance-Based Financing
<b>PEM</b>	Public Expenditure Management
<b>PER</b>	Public Expenditure Review
<b>PETS</b>	Public Expenditure Tracking Survey
<b>PFM</b>	Public Financial Management
<b>RBF</b>	Results-Based Financing
<b>ROB</b>	Results-Oriented Budgeting
<b>SAI</b>	Supreme Audit Institutions
<b>SDG</b>	Sustainable Development Goal
<b>TFR</b>	Total Fertility Rate
<b>TSA</b>	Treasury Single Account
<b>TWG</b>	Thematic Working Group
<b>USAID</b>	United States Agency for International Development
<b>WHO</b>	World Health Organization



# INTRODUCTION

## Background and Purpose

While the importance of governance in a health system is well recognized, there is an overall lack of evidence and understanding of the dynamics of how improved governance can influence health system performance and health outcomes. There is still considerable debate on which governance interventions are appropriate for different contexts. This lack of evidence can result in avoidance of health governance efforts or an over-reliance on a limited set of governance interventions. As development partners and governments are increasing their emphasis on improving accountability and transparency of health systems and strengthening country policies and institutions to move towards universal health coverage (UHC), the need of this evidence is ever rising.

To address this evidence gap, the USAID's Office of Health Systems (USAID/GH/OHS), the World Health Organization (WHO), and the Health Finance and Governance (HFG) Project launched an initiative in September 2016 to 'Marshall the Evidence' on how governance contributes to health system performance and improves health outcomes.<sup>1</sup>

The overall objective of the initiative was to increase awareness and understanding of the evidence of what works and why in how governance contributes to health system performance, and how the field of health governance is evolving at the country level.

### *Thematic Working Groups (TWGs)*

Four TWGs were formed to consolidate evidence by conducting literature reviews and key informant interviews from low and middle income countries in selected areas: Accountability, Policy and Regulation, Public Financial Management (PFM), and the Use of Knowledge in Health Systems (UKHS). These areas were chosen because of their comprehensive nature and importance in all health systems and because of the lack of an international consensus on priority interventions. The TWGs consisted of a small group of experts from various organizations and academic institutions from different parts of the world that consulted with various policymakers and experts globally. Each TWG was led by two co-chairs from different organizations and included a member from WHO and the HFG project.

### *The TWG Report*

This report is one of five—one for each TWG output—and one that provides a synthesis of the findings across the four themes. This report presents the findings of the Public Financial Management.

---

<sup>1</sup> Marshall the Evidence Webpage: <https://www.hfgproject.org/marshalling-evidence-health-governance/>

# Conceptual Framework

A conceptual framework for health governance was adopted by the larger Marshalling the Evidence (MtE) for Health Governance Initiative (Figure 1). This framework was mapped to a table depicting a causal pathway to guide the four TWGs in the development of a framework specific to each TWG's theme. As depicted in the overall Health Governance framework, PFM is a sub-section of broad country governance.

The PFM conceptual framework represents a culmination of research on the dichotomy of PFM, health systems and governance and the best way to frame the issues associated with PFM and health. In addition, the framework reflects a series of discussions among the TWG members to identify areas that best represented PFM and health interventions. The TWG began with the following research questions to develop the PFM conceptual framework:

1. How is PFM defined?
2. What are the PFM areas?
3. What are the PFM interventions?
4. What are the immediate (desired) PFM effects?
5. What are the health system effects?

The TWG defined public financial management as all systems dealing with public revenue (PFM Area 1) and budgeting, expenditure management, and oversight (PFM Area 2). In addition to the traditional PFM topics of revenue and expenditure, we also sought evidence on decentralization (PFM Area 3) which is a common governance reform that may have positive or negative effects on PFM, the health system, and health outcomes. Decentralization is also addressed by the TWGs for Accountability and Policy and Regulation.

The framework was the basis for defining the search terms for the digital literature search. Our research database and summary findings (Section 4) follow this framework, looking at the evidence available on PFM/governance interventions that developing countries undertake and their impact on the health system, health service delivery, and health outcomes. Our framework has been marked in grey where we found no evidence for the section.



Figure 1: Overall Health Governance Framework (S. Bennett, 2014)

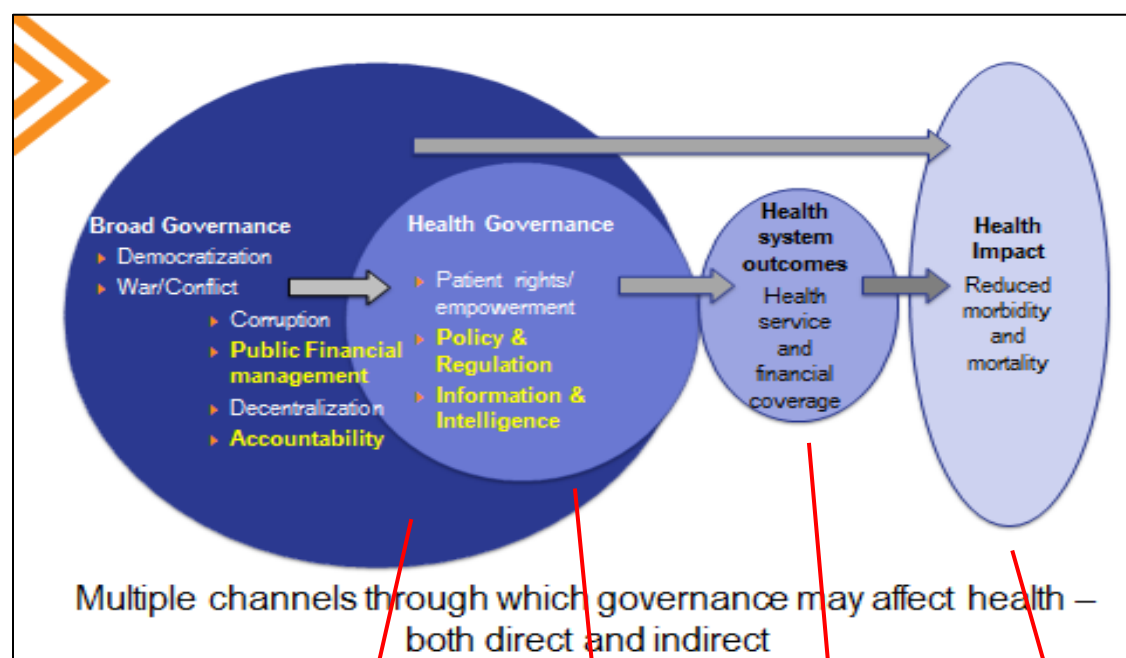


Table 1: Causal Pathway of Health Governance Activities

	Indicators likely to be unique to and need to be defined by each TWG		Indicators common to all TWGs	
Inputs/ Resources	Processes	Outputs: Health system performance	Outcomes: Service and financial coverage	Impacts: Improved health status
<ul style="list-style-type: none"> <li>• Donor or domestic funding</li> <li>• Technical assistance</li> <li>• Country stakeholder engagement</li> </ul>	Implementation of health governance strategies: <ul style="list-style-type: none"> <li>• policy, regulatory changes</li> <li>• accountability mechanisms</li> <li>• public financial management</li> <li>• health system intelligence</li> </ul>	<ul style="list-style-type: none"> <li>• Accountable, transparent policy processes</li> <li>• Evidence-based decision-making</li> <li>• Strengthened institutions</li> <li>• Adequate physical and financial resources allocated efficiently/effectively</li> <li>• Better operational processes across all HS functions</li> </ul>	<ul style="list-style-type: none"> <li>• Increased provision of high-quality services</li> <li>• Increased patient demand for, access to, and utilization of health services</li> <li>• Improved health behaviors adopted</li> <li>• Increased financial protection</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced morbidity and mortality</li> <li>• Improved nutritional status</li> <li>• Reduced disability-adjusted life year (DALY)</li> <li>• Reduced total fertility rate (TFR)</li> </ul>

Adapted from Laurel Hatt, Ben Johns, Catherine Connor, Megan Meline, Matt Kukla, and Kaelan Moat, June 2015. *Impact of Health Systems Strengthening on Health*. Bethesda, MD: Health Finance & Governance Project, Abt Associates



Table 2: PFM Conceptual Framework: Mapping PFM Interventions to Health System Performance

	PFM Areas	PFM Interventions	Immediate (desired) PFM effects	Governance Results	Health System Effects
1. Generating and Managing Revenue for Health	1.1 Resource Mobilization and Revenue Management	Government revenue (tax) policy	More adequate, predictable, sustainable government resource envelope	Effectiveness and efficiency (of institutions to make and implement health policy)	<p><b>Hypothesis:</b> PFM interventions have an effect on health service delivery and health outcomes measured through:</p> <p>a) Quality of health service</p> <p>b) Level of patient demand</p> <p>c) Access to health services</p> <p>d) Utilization of health services</p> <p>e) Adoption of health behaviors</p> <p>f) Financial protection</p> <p>g) Sustainable Financing</p> <p>Literature scoping will:  Identify currently available and ongoing research and field experience that evaluate the effect of</p>
		Tax Administration Modernization	More efficient, effective, and transparent revenue collection	Rule of law/anti-corruption, effectiveness and efficiency (of institutions to make and implement health policy)	
		Improved contributions and collection methods (i.e. retention of user fees at the facility/local level)*	Improving benefit adequacy, cost recovery and fiscal health of programs	Effectiveness and efficiency (of institutions to make and implement health policy)	
		Earmarking revenues for health*	Increasing revenue sources specifically for the health sector	Responsive Policies, effectiveness and efficiency (of institutions to make and implement health policy)	
2. Budgeting and Public Expenditure Management of Health Goods and Services	2.1 Budget Planning and Prioritization	Policy and strategic planning (medium-term expenditure framework(MTEFs)); fiscal responsibility and fiscal targets	Multi-year planning that reflects policy priorities in a more stable and predictable environment	Rule of law/anti-corruption, effectiveness and efficiency (of institutions to make and implement health policy)	
		Expenditure policy; prioritization; participatory budgeting	Resource Allocation: Better matching of health spending needs and priorities	Voice and empowerment, transparency, responsive policies	
	2.2 Budget Formulation	Budget classification and government accounting; adopting accrual accounting and International Public Sector Accounting Standards (IPSAS)	Consistent nomenclature and budget classification, captures implementing institutions (administrative), purpose of expenditure (functional) and use of expenditure (economic)	Rule of law/anti-corruption, effectiveness and efficiency (of institutions to make and implement health policy)	
		Program-based budgeting (PBB)(results-oriented budgeting (ROB)); Improvements to line-item and input-based budget formulation	Improved budget justifications and budget formulation based on objectives, activities and outputs.	Responsive policies, effectiveness and efficiency (of institutions to make and implement health policy)	
		Costing techniques, budget justifications	Improved budget submissions from Ministry of Health (MOH) to Ministry of Finance (MOF)	Responsive policies, effectiveness and efficiency (of institutions to make and implement health policy)	

## 6 Introduction

	PFM Areas	PFM Interventions	Immediate (desired) PFM effects	Governance Results	Health System Effects
		Gender responsive budgeting	Improved gender equity and gender prioritization	Equity and inclusiveness	<p>PFM interventions on health outcomes listed above, with the aim to identify areas where further evidence is needed.</p> <p>Capture findings of these effects (positive, negative, no effect, undetermined) to improve collective understanding of how PFM/governance contributes to health system outcomes.</p>
	<b>2.3 Budget Execution</b>	Cash management and treasury operations; treasury single account (TSA)	Consolidation of funds, planned and timely fund release, avoiding payment arrears	Rule of law/anti-corruption, effectiveness and efficiency (of institutions to make and implement health policy)	
		Integrated Financial Management Information System (IFMIS)	Real time financial information, automates, integrates PFM processes for effective, budget formulation, execution and reporting	Rule of law/anti-corruption, transparency, effectiveness and efficiency (of institutions to make and implement health policy), accountability	
		Improving public procurement systems including e-procurement	Sound, flexible procurement rules and purchasing arrangements	Rule of law/anti-corruption, transparency, effectiveness and efficiency (of institutions to make and implement health policy), accountability	
		Strategic purchasing of health goods and services (provider payment) methods such as capitation, case-based	Selective contracting and payment methods/rates that create incentives for providers to manage expenditure based on performance metrics. Linking incentives to results; targeting resources for specific outcomes, especially vulnerable populations.	Responsive policies	
		Results-based financing (RBF)*	Linking financial incentives to results; targeting resources for specific outcomes will increase the likelihood of achieving those results/outcomes.	Transparency, anticorruption	
		<b>2.4 Budget Monitoring and Reporting</b>	Internal controls and internal Audit	Ensuring public sector integrity by preventing, detecting irregular activities	
	Financial reporting; performance reporting; fiscal transparency; Open Government Initiatives		Actions properly documented and reported	Rule of law/anti-corruption, transparency, accountability	
	<b>2.5 External Audit and Parliamentary Oversight</b>	Strengthening Supreme Audit Institutions (performance audits)	Actions can be subject to independent, professional, and unbiased audit and review	Rule of law/anti-corruption, accountability	
		Parliamentary Oversight (budget analysis capacity; stronger finance committees)	Raising and explaining PFM issues, empowerment to oversee budget formulation, appropriation, implementation of policies and outcomes of budget allocations	Voice and empowerment, rule of law/anti-corruption, transparency, responsive policies, accountability	
		PFM oversight through media and civil society	Broader, more effective engagement and oversight on budget issues for improved transparency and accountability	Transparency, accountability	

	PFM Areas	PFM Interventions	Immediate (desired) PFM effects	Governance Results	Health System Effects
3. Localization of Health Services	3.1 Fiscal Decentralization and Local Governance	Revenue and expenditure management through local administration (Deconcentration)	Transfer of administrative responsibility for specified functions to lower levels within the central government bureaucracy	Voice and empowerment	
		Revenue and expenditure management through parastatals, non-governmental organizations (NGOs), faith-based organizations (FBOs) (Delegation)	Central authorities provide grants or subsidies to parastatal organizations, NGOs or FBOs to deliver health services on behalf of the central government	Voice and empowerment, equity and inclusiveness	
		Revenue and expenditure management through local governments (Devolution)	Transferring fiscal responsibilities to lower levels of government to empower communities through local governments	Voice and empowerment, equity and inclusiveness, accountability	
		Intergovernmental Transfers (General)	Provide predictable, adequate financing for local service provision	Effectiveness and efficiency (of institutions to make and implement health policy)	
		Health specific transfers*	Provide predictable, adequate financing for local health services based on spending needs	Effectiveness and efficiency (of institutions to make and implement health policy)	
		Budget autonomy for local governments (decentralized decision-making, full or within a framework)	Local governments decide, independently, or within a framework, the categories, quantity and quality of services that it intends to offer	Voice and empowerment, accountability	
		Strengthening subnational PFM systems	Strengthening local PFM systems such categories under budget formulation, execution and monitoring and reporting	Effectiveness and efficiency (of institutions to make and implement health policy)	
		Budget autonomy for health providers (i.e. hospital autonomy)*	Form of decentralization focusing on a specific institution rather than a political unit. Provides autonomy on governance, operations and management, and finances.	Effectiveness and efficiency (of institutions to make and implement health policy)	
Notes: /* Denotes health sector specific PFM interventions; others are broad categories of PFM interventions.					



## Scoping Review Methodology

As part of the larger Marshalling the Evidence for Health Governance Initiative, it was agreed that all four TWGs would use the *scoping review* methodology for the literature review. Peer-reviewed journals have generally moved to have all review articles explicitly structured using established and validated methods. The scoping review methodology is good for looking at the breadth and depth of the literature for a pre-defined domain. These reviews are typically used to map the terrain of a given area of inquiry while identifying any gaps in the current pool of knowledge. The approach is flexible without narrow parameters such as causality, quality, or effect size which may, for example, feature in systematic reviews.

As explained in Section 2 Conceptual Framework, the broader initiative has an overall framework for health governance which guided the development of specific thematic conceptual frameworks by all four TWGs.

The PFM TWG was tasked with:

1. Identifying, compiling, and analyzing the evidence of the effects of PFM interventions on health systems and health outcomes within developing nations
2. Presenting the evidence of PFM effects including positive, negative, or inconclusive effects
3. Identifying areas where further evidence is needed.

To begin the review, the following research questions were considered:

1. How is PFM defined?
2. What are the PFM areas?
3. What are the PFM interventions?
4. What are the immediate (desired) PFM effects?
5. What are the health system effects?

Based on the overarching Health Governance framework, the PFM TWG formulated the following hypothesis: PFM interventions have an effect on health service delivery and health outputs measured through:

- a) Quality of health service
- b) Level of patient demand
- c) Access to health services
- d) Utilization of health services
- e) Adoption of health behaviors
- f) Financial protection.

To help guide and structure the literature search, the TWG created a PFM-specific framework to list and group PFM interventions and map how they affect health system performance, governance, and if possible, health outcomes. The PFM framework organized PFM interventions into three areas 1) Generating and Managing Revenue for Health, 2) Budgeting and Public Expenditure Management of Health, and 3) Localization of Health Services.

## *Literature Search*

Before we began the literature review we set some clear goals to help understand the process. These included:

1. Use a literature review to identify currently available research and field experience that evaluates the effect of PFM interventions on health system outcomes and population health, with the aim to identify areas where further evidence is needed.
2. Capture findings of PFM effects (positive, negative, inconclusive) to improve collective understanding of how PFM/governance contributes to health system outcomes.

Figure 2 displays a flow chart summarizing the literature review process. From October 2016 to July 2017, the TWG conducted a literature search with the following exclusion criteria:

- Language: English (Spanish, French, Portuguese optional)
- Time: after 1990
- Geography: at least one low- and middle-income country (LMIC)
- No duplicate references.

The following search terms were used based on the PFM conceptual framework (see Section 2):

- “PFM and health”
- “governance and health”
- “Decentralization and health”
- “Results based financing for health”
- “Gender responsive budgeting and health”
- “sector budget support and health”
- “budget and health”
- “financing health”
- “expenditure policy and health”
- “financing universal health coverage”
- “health sector priority setting”
- “deconcentration and health”
- “strategic purchasing of health services”
- “health resource tracking”
- “resource allocation for health”
- “audit and health outcomes”.

The following databases, websites, and organizations were accessed to search for articles/studies:

- Google Web Search
- Google Scholar
- The Lancet
- Overseas Development Institute (ODI)
- Health Policy and Planning
- International Monetary Fund (IMF)
- The World Bank
- ELSEVIER
- Organization for Economic Cooperation and Development (OECD)
- World Health Organization



- International Journal of Social Sciences and Information Technology
- Social Science and medicine
- International Journal of Health Policy and Management
- The Cochrane Collaboration
- European Journal of Social Sciences
- Policy and Practice.

There were 165 references identified from digital searches. The first step in the review process consisted of reading the title and abstract for meeting the inclusion criteria and relevancy. Of the 165 references, 110 were excluded because PFM and health were not referenced in the research (i.e. the article dealt with PFM interventions, but not their effect on the health sector), or the full article was not publicly available. In the second step, the 55 remaining articles were read in full. An additional 15 articles were excluded because the interventions either did not apply to developing countries (i.e. there is a large database of interventions in OECD countries), the interventions did not relate to our established framework, or the methodology of the study was found faulty or questionable.

For all 40 articles found relevant, the full article was read and data extracted and input into an Excel database. Each article is a row in the database with its data organized into the following columns:

1. PFM Focus Area based on TWG's PFM framework
2. PFM Interventions based on TWG's PFM framework
3. Measured effect of the study
4. Authors of the study
5. Year published
6. Journal name
7. Article title
8. Abstract
9. Countries included in study
10. Level where the research was conducted (national, district etc.)
11. Whether the study was urban or rural focused
12. Language of study (English for all)
13. Study Design
14. Grading of measured impact of intervention (positive, negative, inconclusive)
15. Type of publication/study (original research, working paper, etc.)
16. Overview of important findings
17. Links to MtE Framework—how it describes PFM interventions
18. Identifies studies description of governance issues, particularly health governance
19. Identifies studies description of health system outcomes
20. Identifies studies description of health impact
21. Identifies studies description of other outcomes or effects
22. Date the information was extracted
23. Name of extractor
24. Notes (i.e. link to the study)
25. Number of observations (this varied by study and could be left blank)
26. Study time period.

Based on the 40 articles in the database, preliminary findings were drafted and circulated to the PFM TWG for technical review. In parallel, the TWG conducted key informant interviews with World Bank, OECD, and CABRI experts. These efforts identified an additional 12 articles that were added to the database and the report.

Figure 2: Literature Flow Chart

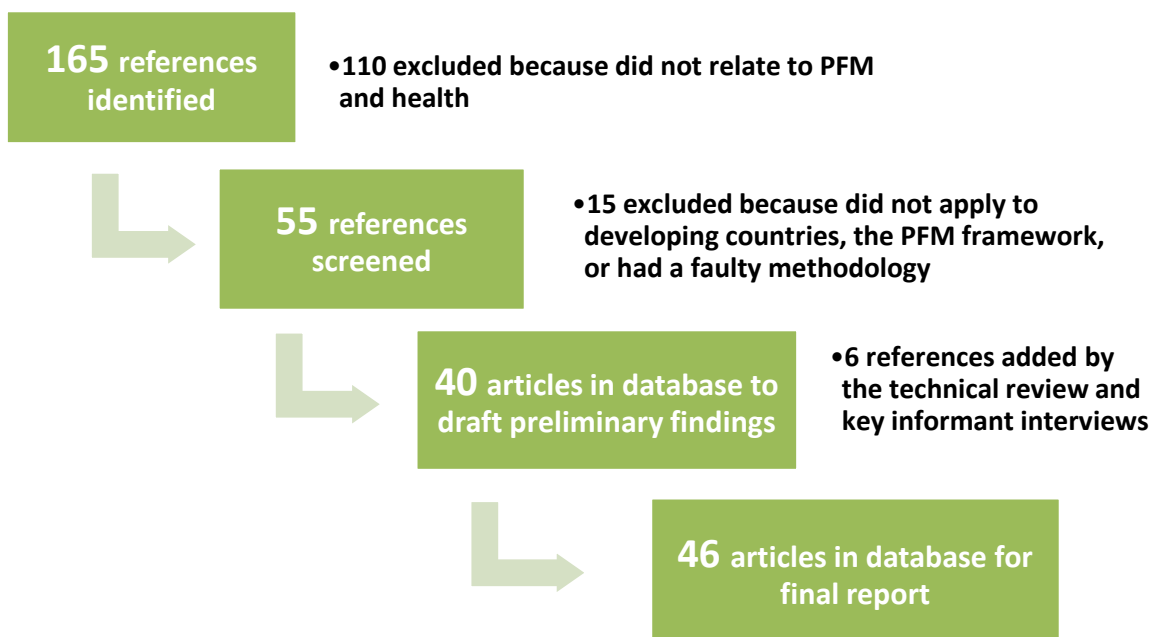


Table 3: Distribution of Articles by PFM Area

PFM Area per PFM Framework	Number of Articles
Resource mobilization and management	9
Budgeting and public expenditure management	20
Localization / Fiscal decentralization	19
Total	40

## SUMMARY OF KEY FINDINGS

### What is PFM?

Public financial management refers to the systems by which government revenue is collected, administrated, allocated, and utilized. PFM policy and legislation will typically cover tax law, budget management and expenditure policy, debt management, subsidies and state-owned enterprises (parastatals). The PFM cycle begins with revenue collection and management and then moves to budget planning expenditure management and oversight and monitoring. Each country is different, but the budget planning process (either program- or inputs-based) usually involves collecting ministry needs from all agencies and departments (MDAs) and then prioritizing those needs and cutting them to fit within the budget ceiling. PFM systems—when driven by effective policy, strong institutions, and good governance—set the stage for robust health service delivery by allowing for effective health spending. As PFM interventions improve, health officials and donors are emphasizing the importance of a good underlying PFM system in the enablement of efficient delivery of health services and improvement of quality of care.<sup>234</sup> Strong budget execution systems and controls also contribute to smooth flow of funds to the health sector, allowing for timely delivery of care, administration, and procurement. Furthermore, audit and oversight structures can contribute to lower levels of corruption and more transparency which, down the line, can drive effectiveness and efficiency within the health sector.

### Generating and Managing Revenue for Health

As availability of direct aid assistance decreases and need proportionately increases, the importance of domestic resource mobilization in developing countries becomes a focus for many international donors. The topic has gained attention in the Addis Ababa Action Agenda and has been touted as the key to sustainable development. Revenue mobilization is the processes involved in collecting and managing government revenue mainly through tax and customs and should have a direct tie to the provision of service, whereby citizens pay taxes and therefore expect services. Revenue mobilization is an important issue for donors to consider the sustainability of an investment, such as whether the country has the capacity to generate and manage revenue to support ongoing service delivery or reforms. This section examines the evidence of the effects of specific revenue mobilization interventions on overall governance, health systems, and health outcomes. The hypothesis is that higher levels of revenue mobilization at the country, state/province or local levels will improve health outcomes through increased funding for health. Our Framework organizes several interventions that are hypothesized to have some desired effect on health outputs. These categories include tax administration and modernization, improved collections and contributions methods, results-based financing, and earmarking revenue for health.

<sup>2</sup> WHO : Public financing for health in Africa : from Abuja to the SDGs, 2016

<sup>3</sup> Cashin C, Bloom D., Sparkes S., Barroy H., O'Dougherty S. : Aligning Public Financial Management and Health Financing, WHO, 2016

<sup>4</sup> Rajan D., Barroy H., Stenberg K.: Budgeting for health, Chapter 8 in Strategizing for national health in the XXIth century, WHO, 2016

## Tax Administration and Modernization

*Desired effects: More adequate, predictable, and sustainable government resources and more efficient, effective, and transparent revenue collection*

PFM interventions in revenue mobilization could have the capacity to affect health outputs by helping to increase funds that benefit the health sector and by enhancing conditions that facilitate greater allocations towards health spending. However, as Krishna D Rao shows in his 2014 study, overall economic growth and revenue mobilization on their own do not necessarily amount to more health spending or health outcomes. As a proportion of Gross Domestic Product (GDP), government tax revenue is significantly below its potential in low- and middle-income countries (Table 4). In addition, total government spending in Brazil, Russia, India, China and South Africa (BRICS) is still markedly less on health—8.1–12.7%—than many countries in the Organization for Economic Cooperation and Development which in 2016 spent upwards of 17.2% (United States) of its expenditure on health.<sup>5</sup> There remains considerable potential for expanding health's share of the governmental budgets in all five of the BRICS countries, especially as the countries grow economically and health becomes a greater priority.<sup>6</sup> There is an opportunity to increase the tax effort and focus and consequently increase tax revenues allocated to health.

**Table 4: Country Tax Capacity, Effort, and Corresponding Revenue Collected by Country Income Level**

Country groups*	Tax capacity (x)	Tax effort (y)	Total revenue <sup>D</sup> (x)*(y) = (z)
Low-income	26.0	0.65	17.0
Middle-income	37.2	0.64	24.1
High-income	45.1	0.76	34.2

\*Based on per capita GDP (PPP, 2005): Low = \$642-\$4,752; Middle = \$4,249-\$17,855; High = \$18,807-\$68,459

Note: Tax capacity and total revenue in percent of GDP terms

## Domestic Tax

One multi-country study showed increasing domestic tax revenues is integral to achieving universal health coverage, particularly in countries with low tax bases. The study shows pro-poor taxes (taxes which do not disproportionately burden the poor, usually indirect taxes such as taxes on corporate gains versus a direct tax, such as sales tax) on profits and capital gains seem to support expanding health coverage. Extra revenue from tax reform corresponded to a yearly increase in government health spending of \$9.86 for every \$100 additional revenue collected (95% CI 3.92–15.8), adjusted for GDP per capita. This association was strong for taxes on capital gains, profits, and income (\$16.7, 9.16 to 24.3), but not for consumption taxes on goods and services (-\$4.37, -12.9 to 4.11).

## Consumption Tax

Consumption taxes—taxes on goods and services such as a sales tax or value add tax (VAT)—form of taxation that might reduce the ability of the poor to afford essential goods, were associated with increased rates of post-neonatal mortality, infant mortality and under-5 mortality rates. These adverse

<sup>5</sup>OECD. Stat. Health Expenditure and Financing. (2017) <[http://stats.oecd.org/index.aspx?DataSetCode=HEALTH\\_STAT](http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT)> August 10, 2017.

<sup>6</sup> Rao, Krishna et al. "Progress towards Universal Health Coverage in BRICS: Translating Economic Growth into Better Health." *WHO* (2014).

associations were not found with taxes on capital gains, profits, and income.<sup>7</sup> This evidence suggests pro-poor taxes might accelerate progress toward achieving major international health goals.

Another study highlights the importance of government health spending on health outcomes. The study found low domestic spending on health and high dependence on out-of-pocket payments contributes to poor health outcomes.<sup>8</sup> Supporting this conclusion, the study also reiterated an often cited finding that limited financial protection may lead to poor health outcomes.

## *Improved Contributions and Collection of User Fees*

### *Desired effect: Improving Cost Recovery*

The method used to collect payment from users is an integral part of many public health systems which ties directly to the budgeting and policy systems. Various methods of collections and contributions have been shown to have positive and negative effects on health outcomes. In this section, we examine the effect of user fees, whereby patients pay a fee for the use of public health facilities and services, a potential revenue generation method.

Removal of user fees is sometimes promoted as a method to improve access and equity in a health system,<sup>9</sup> although it cuts off a revenue stream for the health sector. Further, once removed, the user fee often isn't replaced with another funding mechanism. The removal of user fees theoretically would increase access and allow for the poorest populations to use free healthcare. However, Meessen et al. found the removal of user fees does not adequately address supply and demand side of health financing issues and therefore does not have the desired impact on health outcomes that recommend the practice. The study looked across several countries in sub-Saharan Africa and found, in most countries, that there was no comprehensive approach in addressing all the barriers (financial and non-financial) that households encounter in their utilization of health services. For example, user fee removal could lead to lower quality of care and limit the increase in utilization if needed revenue previously provided by user fees is not replaced. This study did not however take into account how the user fee revenue was used, for example if the retained revenue was effectively reinvested into improving health services. The study also noted that demand-side barriers such as physical distance and transport challenges to access care are not sufficiently addressed by the removal of user fees. Those living close to health facilities become the main beneficiaries of the free healthcare.<sup>10</sup> A summary of Meessen's findings show removal of user fees, though a common intervention to improve equity, does not alone achieve this goal because of other barriers that inhibit access.

Another approach to improve the collection of user fees is the formalization of user fees with the aim of reducing unauthorized payments. Often officials or health workers collect unauthorized fees from patients and their families. Formalization of fees—for example publishing a fee schedule and introducing systems for reinvesting fee revenue into the facility to benefit patients—would theoretically improve service quality and governance and therefore health outcomes. To mitigate the rising cost of healthcare, particularly amongst the poor, the Cambodian government with support and advice from international agencies introduced a series of financing mechanisms including formalizing

<sup>7</sup> Reeves, Aaron et al. "Financing Universal Health Coverage—effects of Alternative Tax Structures on Public Health Systems: Cross-National Modelling in 89 Low-Income and Middle-Income Countries." *The Lancet* 386.9990 (2015): 274–280

<sup>8</sup> Elovainio, Riku et al. "Raising and Spending Domestic Money for Health" *Chatham House* (2013); Web. 13 Aug. 2017.

<sup>9</sup> <https://blogs.oxfam.org/en/blogs/17-05-18-will-new-who-director-general-commit-end-crushing-healthcare-user-fees>

<sup>10</sup> Meessen, Bruno et al. "Removing User Fees in the Health Sector: A Review of Policy Processes in Six Sub-Saharan African Countries." *Health Policy and Planning* (2011): 16-29

user fees. Ensor et al. found the user fee policy in Cambodia had no significant detectable impact on the utilization of public (or private) facilities. A summary of these findings are inconclusive on whether formalizing user fees improve utilization and therefore overall health outcomes. Meessen’s study neither supports nor refutes the potential positive effect of formalization. Rather, his study identifies that the formalization (much like removal) of user fees alone do not have the desired positive effect on health outcomes because of other powerful external factors—informal payments or geographical barriers to care—that confound the positive effect of removing user fees.<sup>11</sup>

### *Earmarking for Health*

*Desired effect: Increasing revenue sources specifically for the health sector*

Earmarking revenues for health has been a controversial topic with many economists and health officials. Some economists argue it decreases efficiency and introduces unnecessary rigidity into the revenue system.<sup>12</sup> The other side of the argument is that earmarking revenue for health (such as sin taxes on cigarettes and alcohol, value added taxes (VATs), payroll taxes or other specific levies) creates a consistent reliable source of financing for a vital public service and potentially improves health outcomes. For example, Ghana’s national health insurance program is funded primarily on earmarks.<sup>13</sup> Ghana allocated 2.5% of the national VAT to its health insurance program and the VAT contribution has grown from 62% to 72% of total funding. Despite the benefits seen in some countries’ health sectors (as demonstrated in the Ghana example above), earmarking can interfere with resource allocation and negatively impact social welfare by eroding the equity of general taxation and disproportionately taxing consumers. In another study in Gabon, Karima Saleh et al. found that increases in earmarked revenues through mobile phone and monetary transfers taxes were offset by reductions in general budget revenues in the following years.<sup>14</sup> Earmarking has been more effective when practices come closer to standard budget processes, that is, softer earmarks with broader expenditure purposes and more flexible revenue.

## Budgeting and Public Expenditure Management (PEM) in Health

Public expenditure management encompasses budget planning, preparation, and execution. The three PFM outcomes expected of PEM systems are fiscal discipline (spend what you can afford), allocative efficiency (spend on the ‘right’ things), and operational efficiency (provision of public services at a reasonable quality and cost). From a sector standpoint, a country’s PEM system also affects its ability to produce health system outputs (health service and financial coverage) as depicted in the overall Health Governance Framework adopted by the Marshalling the Evidence Initiative. Although sector-specific PFM literature is limited, there is empirical evidence (e.g. PFM case studies, Public Expenditure Tracking Surveys (PETS), public expenditure reviews (PERs), etc.) that weaknesses in PEM systems affect health sector results.

---

<sup>11</sup> Ensor, Tim et al. “Impact of Health Financing Policies in Cambodia: A 20 Year Experience” *Social Science and Medicine* (2017).

<sup>12</sup> Wilkinson, Margaret. “Paying for Public Spending: Is There a Role for Earmarked Taxes?” *Fiscal Studies* 15.4 (1994): 119–135

<sup>13</sup> Soe-Lin, Shan et al. “Tax Reform and Resource Mobilization for Health” *Health Finance and Governance Project* (2015).

<sup>14</sup> Cashin, Cheryl et al. “Aligning Public Financial Management and Health Financing: Sustaining Progress Toward Universal Health Coverage” *WHO* (2017). Web. 13 Aug. 2017.

Similarly, in Ghana, a survey concluded that only 20% of non-wage public health expenditure reached the frontline facilities. In Senegal in 2004, Health Decentralization Funds took on average 10 months to be at the disposal of the providers, leaving only two months for the facility to absorb those resources.<sup>15</sup> There is often a communication break down between health and finance professionals. The lack of measurable, immediate results from public spending on health can reinforce perceptions that the sector is ineffective and inefficient.

## *Budget Structure*

*Desired effect: improve alignment between sector priorities and budgetary allocations and allow more flexibility and accountability in public spending*

Budget planning and prioritization are essential parts of the PFM process and dictate where and how much money the health sector will be allocated. There is a shift away from input-based budgeting—a process of budgeting which assigns a number to each of the major inputs, for example, 9 million dollars for salaries and 2 million for vehicles, \$200,000 for office equipment etc. Instead, the trend is to plan budgets according to overall strategic goals—organizing the budget by PBB. This along with other methods in budget planning could improve health service delivery by focusing on health goals rather than yearly inputs. The effects of such a transition are unclear from a health system perspective.

PBB as a PFM intervention is intended to improve good governance by making the MOH accountable for an achievement of objectives (did you achieve the expected goals effectively?) rather than simply budget execution (did you spend the money we gave you for stationery?).<sup>16</sup>

Adopting PBB is difficult, and evidence is mixed. In Lesotho for example, a study of PBB found that policy makers and advisors did not fully appreciate the complexity and labor intensity of PBB, or the human resource realities of many developing countries like Lesotho. The Lesotho study concluded that less complex designs for budget reform, better adapted to the context and realities of health sectors in developing countries, may be needed to improve overall governance.<sup>17</sup>

## *Multi-Year Budgeting (MTEF)*

*Desired effect: multi-year planning that reflects policy priorities in a more stable and predictable environment*

The introduction of MTEF and health specific-MTEF in some contexts was aimed at improving predictability in funding with the idea that MTEFs would ultimately affect the health sector's ability to spend and achieve results in a more predictable manner. A review of case studies that documented the status of MTEF in a sample of nine LMICs found that the introduction of MTEF—in close relation with poverty-reduction strategies—encouraged higher prioritization and enhanced country ownership and customization. The introduction of MTEF also more fully encapsulated poor and vulnerable groups by linking them to domestic decision-making processes, particularly in health.<sup>18</sup> However, contrary

<sup>15</sup> Leruth, Luc et al. "A Principal-Agent Theory Approach to Public Expenditure Management Systems in Developing Countries" *IMF* (2006). Web. 13 Aug. 2017.

<sup>16</sup> Lakin, Jason et al. "Understanding Program-Based Budgeting: Toward Improved Budget Transparency in Kenya" *International Budget Partnership* (2014).

<sup>17</sup> Vian, Taryn and William J. Bicknell. "Good Governance and Budget Reform in Lesotho Public Hospitals: Performance, Root Causes and Reality." *Health Policy and Planning* 29.6 (2014): 673–684

<sup>18</sup> Wilhelm, Vera et al. "Minding the gaps: integrating poverty reduction strategies and budgets for domestic accountability." *The World Bank* (2008).

evidence suggests that MTEF is ineffective unless implementation is supported by other governance measures. For example, Bevan and Palomba (2000) observed that the introduction of an MTEF reform in Uganda did not prevent a decline in the proportion of budgets being allocated to healthcare; this may, however, been due to the fact that the Ugandan government considered it acceptable to leave the health sector more reliant on donor financing than on governmental spending.<sup>19</sup>

### *Costing Techniques, Budget Justifications*

*Desired effect: Improved budget submissions from MOH to MOF*

In countries around the world, Ministries of Health and Ministries of Finance play essential roles in how health systems function and when and to whom health services are delivered. While MOHs are responsible for defining the overall direction of national health policy and the day-to-day delivery of public health services, they are dependent upon MOFs that establish overall annual funding levels and release funds necessary to finance MOH operations. In order to justify health budget requests, MOHs employ costing techniques to improve the accuracy and justify budget figures. Examples were found of MOHs using cost and benefit data to justify budget requests for disease-specific interventions (HIV/AIDS<sup>20,21</sup> and family planning<sup>22</sup>). However disease-specific budget justifications sometimes are not well understood by the MOF because the disease programs often do not align to budget categories or divide cleanly into geographic regions. No studies which reviewed the effectiveness of costing techniques to increase general health budgets and consequently increase access and improve health outcomes were identified.

### *Gender Responsive Budgeting (GRB)*

*Desired effect: Improved gender equity and gender prioritization*

Gender budgeting involves analyzing a budget's impacts on men and women and allocating money accordingly, as well as setting targets—such as equal school enrollment for girls—and directing funds to meet them.<sup>23</sup> The World Bank (2011), Duflo (2012), and Elborgh-Woytek et al. (2013) present evidence on the many ways in which the reduction of gender inequality leads to more rapid economic growth, improved labor productivity, healthier children, and more responsive government.<sup>24</sup> A study of GRB in Africa notes that investments in girls and women (including reproductive health investments) offer a “double dividend” because they have pay-offs in terms of women's reproductive roles, as well as their (economic) productive roles. As a tool for intervention, GRB involves a comprehensive process which includes inputs, activities, outputs, assessment of government interventions, and monitoring of the effectiveness and efficiency of public expenditure. This in turn leads to the optimal utilization of

---

<sup>19</sup> Foster, Mick et al. “How, When and Why Does Poverty Get Budget Priority?: Poverty Reduction Strategy and Public Expenditure in Uganda” Overseas Development Institute (2002).

<sup>20</sup> HIV and AIDS Data Hub. *Investment Cases*. (2013). 13 August 2017 <http://www.aidsdatahub.org/Thematic-areas/Investment-cases> . Web. 14 Aug. 2017.

<sup>21</sup> UNAIDS. *Smart Investments*. (2013). 13 August 2017 [http://www.unaids.org/en/resources/documents/2013/20131130\\_smart-investments](http://www.unaids.org/en/resources/documents/2013/20131130_smart-investments)

<sup>22</sup> Family Planning 2020. *Costed Implementation Plans: Strengthening Investments in Family Planning*. (2017). 13 August 2017 <http://www.familyplanning2020.org/microsite/cip>

<sup>23</sup> The Economist. *What is Gender Budgeting?* (2017). 13 August 2017 <https://www.economist.com/blogs/economist-explains/2017/03/economist-explains-2>

<sup>24</sup> Stotsky, Janet “Gender Budgeting: Fiscal Context and Current Outcomes” *IMF* (2016). 13 August 2017 <https://www.imf.org/external/pubs/ft/wp/2016/wp16149.pdf>



limited resources and good budget performance.<sup>25</sup> An IMF survey<sup>26</sup> of gender budgeting efforts throughout the world found that:

- A wide variety of institutional arrangements exist. In most countries, the MOF leads the gender budgeting initiative and establishes requirements for other ministries and agencies within the government to follow. When the MOF leads these efforts, gender budgeting has tended to have more influence on budget policies.
- Countries should prioritize gender-oriented health goals such as reducing maternal mortality and sexually transmitted diseases and providing contraception services to guide budgeting.
- Program budgeting tends to lend itself better than traditional input-based budgeting towards the incorporation of gender-oriented objectives into the budget process. **Ukraine and Rwanda** provide good examples, where governments are integrating gender budgeting into a PBB approach.

Overall, GRB is seen as a positive intervention when done correctly and complemented by gender-specific key performance indicators and a monitoring and evaluation (M&E) framework for results-oriented budgeting.

## Budget Execution

Budget Execution is the process by which revenue collected is allocated and disbursed to the relevant MDAs. The execution process begins with a disbursement from the MOF or central bank down to the line ministries with the direction to spend money on services. There are many processes and controls needed to track and safeguard money through this process to ensure adequate service delivery. Available data from sub-Saharan African countries indicate that between 10% and 30% of allocated health budgets go unspent.<sup>27</sup>

## Cash Management and Treasury Operations

*Desired effect: Consolidation of funds, planned and timely fund release, avoiding payment errors*

Cash management and treasury are areas of PFM that include cash planning, cash forecasting, Treasury Single accounts, bank account management, controls for per diems and other non-salary payments, and arrears management. Harmonizing treasury operations and cash processes can improve the budgeting and planning processes of health. If treasury operations are inefficient and reliant upon old outdated processes, then the system can become entrenched. Inefficient treasury operations are also subject to a lack of transparency, enforcement and are often unreliable to the communities it needs to service. It is therefore important for the MOH to work closely with the MOF to develop a detailed forecast of MOH cash flow (spending) to allow for timely releases of funds for services and procurements, and manage expenditures within budget.<sup>28</sup> For example, in Mozambique the district-level government funding the immunization supply chain is often managed through a single person,

<sup>25</sup> Durojaye, Ebenezer et al. "Gender Budgeting As a Tool for Advancing Women's Health Needs in Africa." *European Journal of Social Sciences* 17,1 (2010): 18-27

<sup>26</sup> Stotsky, Janet "Gender Budgeting: Fiscal Context and Current Outcomes" *IMF* (2016). 13 August 2017  
<https://www.imf.org/external/pubs/ft/wp/2016/wp16149.pdf>

<sup>27</sup> WHO: Public financing for health: from Abuja to the SDGs, Geneva, 2016

<sup>28</sup> Mu, Yibin "Government Cash Management: Good Practice & Capacity-Building Framework" *World Bank* (2006).

the district secretary, who may quickly become a bottleneck if many departments are submitting requests simultaneously resulting in cash flow problems.<sup>29</sup> Thus, [vaccine] program managers must anticipate funding needs days or weeks in advance, potentially even for small funding requests like fuel or maintenance. When an unexpected need arises, they may be unable to mobilize the cash in a timely manner. Funding delays and cash flow problems such as these are some of the most widely-reported challenges among on-the-ground practitioners across LMICs, in countries like Nigeria, Sri Lanka, and likely many others. The results are delays of the implementation of health activities which can negatively affect the quality of care and performance.

### *Integrated Financial Management Information Systems*

*Desired effect: Real time financial information, automates and integrates PFM processes for effective budget formulation, execution and reporting*

Integrated financial management information systems computerize and automate key aspects of budget execution and accounting operations across line ministries such as the MOH. International best practice calls for increased reliance on electronic transactions.<sup>30</sup> IFMIS can enable prompt and efficient access to reliable financial data and help strengthen government financial controls, improving the provision of government services, raising the budget process to higher levels of transparency and accountability, and expediting government operations. IFMIS is an accounting system configured to operate according to the needs and specifications of the environment in which it is installed. The system uses information and communications technology to support management and budget decisions, fiduciary responsibilities, and the preparation of financial reports and statements. An analysis of IFMIS in five developing countries found that the extensive requirements for successful implementation were particularly demanding on these countries' administrations.<sup>31</sup> Unfortunately, no research has been conducted regarding IFMIS' effect on the health sector, but it is routinely used as an overall PFM solution especially for conflict countries with an obsolete or destroyed administrative and economic infrastructure.

### *Improving Public Procurement Systems*

*Desired effect: Sound, flexible procurement rules and purchasing arrangements*

As public procurement accounts for a substantial portion of the taxpayers' money, governments are expected to ensure that it is undertaken with sufficient oversight in order to ensure that it safeguards the public interest and delivers high quality goods and services. Improved public procurement systems can benefit the health sector by preventing waste (e.g. high prices for drugs), preventing fraud (e.g. vendors paying bribes to win contracts<sup>32</sup>), and reducing transaction time. For example, needed medical equipment is available more quickly.

A study of e-procurement used by a joint purchasing system for a network of seven university hospitals in Brazil found e-procurement was successful in achieving real savings. A decrease in price > 10% was

---

<sup>29</sup> Village Reach. "Delivering The Money: The Importance of Efficient Financial Flows for Vaccine Distribution." (2016).

<sup>30</sup> Mu, Yibin "Government Cash Management: Good Practice & Capacity-Building Framework" *World Bank* (2006).

<sup>31</sup> Diamond, Jack and Pokar Khemani "Introducing Financial Management Information Systems in Developing Countries" *IMF* (2005).

<sup>32</sup> <http://www.americasquarterly.org/content/corruption-network-guatemalan-health-system-exposed>

observed in 47% of the medications analyzed. A decrease > 20% was recorded in 32% of the 37 items. Overall, the unit price for 26 items (70%) had an average reduction of 23%<sup>33</sup>.

Kenya implemented an automated public procurement process known as procure-to-pay (P2P)<sup>34</sup>. The procure-to-pay system is an electronic procurement tool that implements streamlined process from requisition, tendering, contract award to payment. A review of adoption of P2P by Kenyan parastatals (16% of which are in the health sector) observed reduced lead times, minimal paperwork, low tender costs, reduced redundancy, and reduced bureaucracy<sup>35</sup>. The government of Kenya intended to fully implement the procure-to-pay systems by mid-2017 with the goal of enhancing accountability and transparency in the procurement of goods, works, and services in the public sector.

## *Strategic Purchasing of Health Services*

*Desired effect: Selective provider contracting and payment methods that create incentives for efficiency, quality, and equity.*

Strategic purchasing is the process by which funds are allocated to healthcare providers to obtain services on behalf of identified groups (e.g. insurance scheme members) or the entire population (Kutzin 2001). It is usually broken into identification of goods and services to be purchased, selection of service providers, service quality, efficiency and equity, and determining the contractual and financial elements of the purchase. Strategic purchasing in this context refers to a country's provider payment system, defined as the payment method combined with all supporting systems, such as contracting, accountability mechanisms, and management information systems.<sup>36</sup> Purchasing strategies that can help improve efficiency typically require flexibility to contract and pay healthcare providers for outputs, as well as up-front investments in capacity.<sup>37</sup>

In Mongolia for example, the MOH identified strategic purchasing—in particular, provider payment—as an important way to direct limited funds to priority services. Yet strategic purchasing has been limited by the continued flow of all public funds through facility-based line-item budgets that are tightly managed by the national treasury. Some new output-oriented payment systems have been used in the social health insurance system, but it remains difficult to create incentives for providers because all funds are planned, disbursed, and accounted for using input-based line-item budgets.

Payment systems should help achieve health policy objectives by encouraging access to necessary health services for patients, high quality of care, and improved equity. Payment systems should also promote the effective and efficient use of resources and, where appropriate, cost containment. Payment systems function better when they are transparent, allow for participation, and assure accountability. Yet public purchasers, such as the MOH and insurance agencies, continue to rely solely on conventional payment methods such as line-item budgets and fee-for-service.

In fee-for-service methods, the provider is reimbursed for each individual service provided. When there is no fixed-fee schedule and services are not bundled (that is, where healthcare services are not

<sup>33</sup> Sigulem F, Zucchi P. E-procurement in the Brazilian healthcare system: the impact of joint drug purchases by a hospital network. *Rev Panam Salud Publica*. 2009;26(5):429–34.

<sup>34</sup> <http://supplier.treasury.go.ke/site/tenders.go/index.php/pages/about>

<sup>35</sup> Kalau, Mwenga Esther 2016. E-Procurement Strategies and the Performance of Kenya Owned Parastatals. MBA Research Project. School of Business, University of Nairobi.

<sup>36</sup> Langenbrunner, John et al. "Designing and Implementing Health Care Provider Payment Systems: How-to Manual. *World Bank* (2009).

<sup>37</sup> Cashin, Cheryl et al. "Aligning Public Financial Management and Health Financing: Sustaining Progress Toward Universal Health Coverage" WHO (2017). Web. 13 Aug. 2017.

grouped into a higher aggregated unit), providers bill purchasers for all costs incurred. While fee-for-service has advantages (easy to implement, thought to improve access and utilization for underserved populations), the incentives to provide more services (and drive up costs) and use more expensive inputs makes this type of payment method unsustainable in most health systems.

To help establish strategic payment methods that incentivize the better management of expenditures, purchasers need to link payment to outputs. Evidence was found for two strategic purchasing methods that are more output driven: diagnosis-related group (DRG) and results-based financing.

**Diagnosis-Related Groups (DRGs):** Several low- and middle-income countries (particularly in the Asia Pacific region) are introducing or considering the implementation of DRGs to contain inpatient costs. DRG is a system of classifying patients (usually hospital patients) into groups based on their diagnosis for the purposes of payment. The system also acts as a method for managing hospital funding arrangements by using a broader category of case-based or activity-based funding (ABF) arrangements to increase the efficiency of hospital services. In practice, DRG-based hospital payment systems are supposed to adopt a standard pricing framework that provides equality in payments across healthcare providers for services of the same type. DRGs can also be linked with social health insurance and government funding mechanisms to help set reasonable and equitable payment amounts. DRGs, in theory, are supposed to provide a means for the management and financing of public and/or private hospital services. Yet, evidence regarding the impact of DRG-based payment systems on efficiency and quality, however, is limited and mixed.

When assessing studies that looked at the impact of DRG-based hospital payment systems, a few common themes emerged. Length of hospital stays tended to decrease and volume of hospitalizations tended to increase in countries that use DRGs to set hospital budgets, while volume tended to decrease in countries that shifted from a cost-based reimbursement system to a DRG-based payment. Annear et.al found DRGs tended to affect the non-hospital sector by shifting costs from inpatient to outpatient.<sup>38</sup> Despite these inconclusive results, the introduction of DRGs must be seen in the context of a country's wider health system. A study looking at DRGs in LMICs noted that DRG systems have to be understood as evolving. The introduction of a DRG system may just be part of the long path of continuous provider payment development and adjustment, and direct results may not be able to be measured. If DRGs are seen as an intervention in line with larger system wide changes then it is understandable that as a provider payment mechanism it should be implemented in line with larger contextual changes of professional ethics and increased focus on quality of care.<sup>39</sup>

### *Results-Based Financing*

*Desired effect: Linking financial incentives to results and targeting resources for specific outcomes will increase the likelihood of achieving those results/outcomes.*

Results-based financing is an intervention which links payments to results. RBF is also known as performance-based financing (PBF) or pay-for-performance (P4P). A portion of the funding for health facilities becomes dependent on results, as opposed to just standard budget allocations. While not a PFM intervention itself, RBF requires changes in public financial management to operationalize in

---

<sup>38</sup> Annear, Peter Leslie and Dale Huntington "Case-base Payment Systems For Hospital Funding in Asia: An Investigation of Current Status and Future Directions." *Comparative Country Studies* (2015).

<sup>39</sup> Mathauer, Inke and Friedrich Wittenbecher "DRG-based Payment Systems in Low and Middle Income Countries: Implementation Experiences and Challenges." *World Health Organization* (2012).

public health facilities. The idea of linking performance to financing is to reward providers that achieve results, such as compliance with clinical protocols or increased immunization.

Many studies have found RBF results to be uncertain. In Lesotho, one study found that RBF did not have the desired effect at the hospital level because staff lacked the capacity to implement the reform. The authors of the study noted that the policy goals in Lesotho were also not adequately translated from the national to facility level, which contributed to the lack of adoption.<sup>40</sup>

Another study conducted in Cameroon found concerns that RBF may inadequately address inequalities in access to care. After testing the PBF intervention targeting the poorest in Cameroon communities, the study concluded that a system of targeting the poorest of society in PBF programs may help reduce inequalities in healthcare use, but only when design and implementation problems leading to substantial under-coverage are addressed.<sup>41</sup> It therefore remains inconclusive if RBF interventions can address inequities in access to care.

There are concerns regarding the validity of the indicators, privacy and administrative burden, when implementing RBF, making it a controversial intervention. One study examined the effect of P4P in Tanzania on internal and external accountability mechanisms. P4P had some positive effects on Tanzanian hospitals' internal accountability, with increased timeliness of supervision and the provision of feedback during supervision, but a lack of effect on supervision intensity. P4P also reduced the interruption of service delivery due to broken equipment, as well as drug stock-outs due to increased financial autonomy and responsiveness from managers. Furthermore, P4P affected management practices in Tanzania by making them less hierarchical and with less emphasis on bureaucratic procedures. However, effects on external accountability were mixed. Health workers treated pregnant women more kindly, but outreach activities did not increase. Facilities were more likely to have committees, but their role was largely limited. P4P did, however, improve internal accountability measures through improved relations and communication between stakeholders that were incentivized at different levels of the system and also enhanced provider autonomy over funds.<sup>42</sup>

Additionally, Petrosyan and Melkopian found that Armenia's RBF program contributed to a substantial increase in the utilization of PHC services and improved provider performance. This intervention was coordinated with well sequenced reforms and supported by nationwide training and bonus payments to keep participants motivated. Researchers hypothesized these factors may have significantly contributed to the success of the program. They also cited domestic finance as a major source of success because it encouraged country buy-in and ownership.<sup>43</sup>

## *Budget Monitoring and Reporting*

Throughout the budget planning and execution processes, it is vital to have sound monitoring and reporting systems in place. The efficacy of these systems can be a big determinant of how efficiently and effectively funds are used. Budget monitoring and reporting can also contribute to anticorruption

<sup>40</sup> Vian, Taryn and William J. Bicknell. "Good Governance and Budget Reform in Lesotho Public Hospitals: Performance, Root Causes and Reality." *Health Policy and Planning* 29.6 (2014): 673-684.

<sup>41</sup> Ilse JE Flink et al. "Targeting the Poorest in a Performance-Based Financing Programme in Northern Cameroon" *Health Policy and Planning* 31,6 (2016): 767-776

<sup>42</sup> Mayumana, Iddy et al. "Effects of Payment For Performance on Accountability Mechanisms: Evidence From Pwani, Tanzania." *Social Science and Medicine* 179 (2017): 61-73

<sup>43</sup> Petrosyan, Varduhi et al. "National Scale-Up of Results-Based Financing in Primary Health Care: The Case of Armenia" *Health System & Reform* 3,2 (2017): 117-128

efforts, as well as potentially increase level of service through safeguarding funds against fraud waste and abuse.

### *Internal Controls and Internal Audit*

*Desired effect: Ensuring public sector integrity by preventing and detecting irregular activities*

The necessity for ensuring safe, quality, and cost effective services is more often done through an audit process. The audit process certifies that all financial practices comply with PFM procedures and informs providers about any issues or irregularities, promoting transparency and health sector integrity. A study examining East and Southern Africa found that a lack of regulation combined with no formal auditing process and mixed messages from the MOF created an uncertain and fragmented policy environment across the region. Countries which had formal regulating policies on the private sector and an auditing process, such as Botswana, Kenya and Uganda, however, did not encounter these issues. The study pointed out that the lack of control may be due to the fact that most regulatory authorities do not have the capacity—finances, human resources, and logistics—to carry out all their responsibilities, especially when faced with an expanding private sector. Professional councils in Africa face enormous responsibilities as they are often charged with registering, licensing, inspecting, and re-licensing health professionals as well as facilities across both the public and private sectors.

### *Financial Reporting; Performance Reporting; Fiscal Transparency Open Government Initiatives*

*Desired effect: Expenditure properly documented and reported; better accountability*

Financial reporting should address possible misalignment that may emerge between budget structure (how allocations are made) and expenditure management and reporting systems (how expenditures are reported). Weak financial reporting creates distortions and missed opportunities for monitoring performance in a consistent manner.

Timely, reliable, and complete financial reporting in the health sector is critical for sound policy making and planning, particularly in developing countries where a history of corruption and scarce resources makes transparency even more necessary. Historically, developing countries have attempted to accurately record spending on health services via health resource tracking. More recently, they have shown renewed interest in health resource tracking as pressure has mounted to improve accountability for the attainment of the sustainable development goals (SDGs). Health resource tracking in developing countries has advanced substantially over the years in the standardization of methods and provision of more reliable information to influence decision-makers in the improvement of health system performance. The System of Health Accounts introduced by the OECD in 2011 (SHA 11) tracks financial health data provided by countries and has seen important advances in countries' health accounts:

- Disaggregation of funding sources for public expenditure on health (external versus domestic)
- Delineation of all sources of revenues, as well as expenditure of schemes/agents (e.g. insurance schemes)
- Disaggregation of capital versus current expenditure.

A study which reviewed National Health Accounts (NHA) noted that NHAs are at most a framework and therefore can do little to address the underlying problem of weak government public expenditure management and information systems that provide much of the raw data. The emergence of budget support aid modalities poses a methodological challenge to health resource tracking; such support is difficult to attribute to any particular sector or health program.<sup>44</sup>

## External Audit and Parliamentary Oversight

In addition to internal controls, it is important to have external monitoring bodies that act as a second check on the established internal controls. Effective external monitoring and oversight can add up to increased transparency and less fraud and corruption which could theoretically lead to more effective use of funds and better service delivery. These external monitoring bodies, however, must be independently financed and should ideally adhere to global best practice to ensure adequate oversight is achieved. Civil society and elected officials can also play an important part in monitoring PFM systems and budgets.

### *Strengthening Supreme Audit Institutions*

*Desired effect: Actions can be subject to independent, professional and unbiased audit and review*

Supreme Audit Institutions (SAIs) are governmental entities that are established by law to act as an external auditor, traditionally known for their oversight of public expenditure and operations. Unfortunately, no literature regarding the role of SAIs in the health sector was found. Researchers conducted a systematic review assessing the effects of audit and oversight (general SAI practices) on healthcare professionals and patient outcomes and examining the factors that explain the varied effectiveness of audit and feedback. However, the review focused on healthcare professional practices and not budgetary concerns; thus the review could not be compared with the intervention of SAIs.<sup>45</sup>

### *PFM Oversight through Media and Civil Society*

*Desired effect: Broader, more effective engagement and oversight on budget issues for improved transparency and accountability*

It is important to involve Parliament and the media and civil society. A study, which analyzed setting healthcare priorities in Kenya, noted that there is no systematic and effective mechanism to elicit and incorporate community values in the budgeting and planning processes. The study observed that if hospitals (and the health sector) are perceived to be a social institution, then the lack of a mechanism to incorporate community values limits the legitimacy and responsiveness of the hospital budgeting and planning processes. The study concluded that to help overcome this issue, county hospitals in Kenya must incorporate participatory community engagement mechanisms such as the incorporation of community members in hospital planning committees and the use of citizen juries or planning cells. The selection of community representatives in these mechanisms must, however, be seen to be

<sup>44</sup> Powell-Jackson, Timothy and Anne Mills "A Review of Health Resource Tracking in Developing Countries." *Health Policy and Planning* 22,6 (2007): 353-362

<sup>45</sup> Ivers, Noah et al. "Audit and Feedback: Effects On Professional Practice and Healthcare Outcomes." *The Cochrane Collaboration* (2012).

transparent and fair.<sup>46</sup> This study highlights that the involvement of non-governmental players can enhance the transparency, accountability, and even the legitimacy of the health sector. Similarly, using municipal-level data from Brazil spanning the period 1990–2004, Gonçalves (2014) found that municipalities which implemented participatory budgeting reforms were more likely to allocate increased funding to health and sanitation services. This finding was confirmed even after controlling for a range of other variables.<sup>47</sup>

## Fiscal Decentralization and Local Governance

The “localization” of health services is the process of redistributing or dispersing finances, functions, powers, people or things away from a central location or authority to the local level, known as decentralization. It is both a political and administrative intervention as it moves power and decision making from central authorities to localities and local authorities. Fiscal decentralization, as a PFM intervention, shifts revenue raising and/or expenditure of monies to a lower level of government who will maintain financial responsibility. In health, fiscal decentralization is a mechanism by which the control of the financing of health procurement, services, and funding is given to local authorities.

Specific PFM interventions include deconcentration, delegation, devolution, intergovernmental transfers, health-specific transfers, budget autonomy for local governments or health providers, strengthening subnational public financial management systems, and budget autonomy for health providers. Only the subsections where evidence was found are included in this report. The section below reviews the overarching assumption of decentralization within the specific interventions mentioned above and examines the positive or negative effects of decentralization on overall governance, health systems and health outcomes. Of the articles reviewed, most or all cases did not isolate the seven interventions mentioned on our framework, but rather the studies examined decentralization as a broad concept with an implication for overall governance frameworks.

The implications of decentralization are varied and often depend on pre-existing socio-economic and organizational context, financial barriers to access, the form of decentralization implemented, and the complementary mechanisms executed alongside decentralization.<sup>48</sup>

### *Revenue and expenditure management through local administration (Deconcentration)*

*Desired effect: the transfer of administrative and fiscal responsibilities to lower levels of government resulting in the empowerment of communities and local authorities.*

Deconcentration’s aim is to localize decision making in hopes of achieving greater efficiency and effectiveness. A major concern is that deconcentration may lead to the capture of decision-making processes by local elites rather than by the communities they represent, thereby promoting rather

---

<sup>46</sup> Barasa, Edwine et al. “Setting Healthcare Priorities: A Description and Evaluation of the Budgeting and Planning Process in County Hospitals in Kenya.” *Health Policy and Planning* 32,3 (2016): 329-337

<sup>47</sup> Goryakin, Yevgeny et al. “Public Financial Management and Health Service Delivery: A Literature Review” *Overseas Development Institute* (2017).

<sup>48</sup> Sumaha, Anthony Mwinkaara et al. “The Impacts of Decentralisation on Health-Related Equity: A Systematic Review of the Evidence.” *Health Policy* 120,10 (2016): 1183-1192



than preventing corruption.<sup>49</sup> Another concern is that poorer regions may suffer if the redistributive powers of central government are reduced.<sup>50</sup>

The rhetoric of deconcentration does not always mirror actual implementation, nor does it always result in empowered local actors.<sup>51</sup> For example, in Ghana the lack of coherence in district financing, mandated managerial responsibilities, and strong vertical accountabilities has negatively influenced the authority of district health managers, thereby deterring deconcentration. After an initial process of administrative decentralization was completed in Ghana, followed by a century of administrative decentralization reforms, the result was only a limited shift of power from national to sub-national levels. While the origins of district health system development were in fact bottom-up, the broader governance tendencies towards centralization destabilized the implementation of decentralization, resulting in an intervention which failed to empower local actors. The subsequent limited shift of power from national to sub-national actors seen in Ghana is not an isolated example of decentralization not reaching its full potential of empowering local authorities.

Decentralization is also sometimes theorized to encourage yardstick competition among local governments and to potentially lead to better quality public services (Adam et al., 2008). However, a cross-country analysis concluded that if central governments retain some authority to influence local policy and implementation without compromising the autonomy of local decision making, it is more likely that the benefits of a devolved system will be realized.<sup>52</sup> Many of the studies reviewed in the cross-country analysis seemed to reiterate this theme that decentralization without some central direction appears to undermine health system effectiveness—which demonstrates that pure deconcentration may not be attainable. The cross-country analysis also concluded that countries which achieve a more fiscally decentralized system are associated with lower mortality rates and improving health outcomes in environments with high levels of corruption. All the studies concluded that the implementation of decentralization policies has varied effects and is governed by context.

In Fiji, decentralization efforts in health have resulted in a shift of patients visiting tertiary hospitals to more visiting peripheral health centers. This has been accompanied by a limited transfer of administrative authority, suggesting that Fiji's deconcentration interventions reflect the transfer of workload (and patients) only, while decision-making has remained mostly centralized. A study which analyzed decision space in Fiji in five functional areas (finance, service organization, human resources, access, and governance rules) identified that the Fijian health systems remain largely centralized with limited decision space at subnational levels. According to one study of deconcentration efforts in Fiji, decentralization has had an inconclusive effect on empowering local actors (with most of the power and authority staying centrally located) and on health systems and outcomes. The results remain vague due to a 300% increase in the utilization of health services at the health center level since the introduction of decentralization, but a decline in funding for ambulatory care. This decline in funding, despite an increase of utilization, could suggest a decline in quality, thereby affecting outcomes. However, more research is needed in this area to confirm.<sup>53</sup>

<sup>49</sup> Vian and Collins, 2006. "Using financial performance indicators to promote transparency and accountability in health systems. U4Brief No. 1. U4 Anti-Corruption Resource Centre. CHR Michelsen Institute. October 2006

<sup>50</sup> Goryakin, Yevgeny et al. "Public Financial Management and Health Service Delivery: A Literature Review" Overseas Development Institute (2017).

<sup>51</sup> Kwamie, Akuet et al. "The Path Dependence of District Manager Decision-Space in Ghana." *Health Policy and Planning* 31,3 (2016): 356-366

<sup>52</sup> Robalino, David "Does Fiscal Decentralization Improve Health Outcomes? Evidence from a Cross-Country Analysis." *The World Bank* (2001).

<sup>53</sup> Mohammed, Jalal et al. "Decentralisation of Health Services in Fiji: A Decision Space Analysis." *International Journal of Health Policy and Management* 5,3 (2016): 173-181

## *Revenue and Expenditure Management through Local Governments (Devolution)*

*Desired effect: Transferring fiscal responsibilities to lower levels of government to empower communities through local governments*

Evidence from a study in Zambia demonstrated that in a poor country with declining health budgets, allowing district health officials a moderate degree of choice for many key functions did not worsen inequalities among districts, nor had it reduced the utilization of health services.<sup>54</sup> On the positive side, deconcentration efforts in Zambia have allowed the districts to make decisions on the internal allocation of resources and on user fee levels and expenditures. However, districts' choices were quite limited over salaries and allowances, and they did not have control over additional major sources of revenue, like local taxes. Bossert et al. concludes that the Zambian health sector differs from other cases of 'devolution' in that its capacity to generate significant additional revenue sources, such as local taxes, is quite narrow. The Zambian case therefore demonstrates that decentralization can have a positive impact on overall governance in terms of empowering local decision making, but can remain inconclusive about the impact on the health system and health outcomes. In contrast, in Tajikistan, post-soviet rapid devolution of both revenue and expenditure authority to local governments led to poor risk pooling and a high degree of inequity.<sup>55</sup>

## *Budget Autonomy for Local Governments or Providers*

*Desired effect: Local governments decide, independently or within a framework, the categories, quantity and quality of services that it intends to offer.*

Budget autonomy frees local governments from waiting for central-level approvals and gives them discretionary decision making over health budgets to manage the quality, quantity, and delivery of health services under their jurisdiction.

Examples of successful budget autonomy can be seen in Colombia and Chile, where equitable levels of per capita financial allocations at the municipal level were achieved through different forms of intergovernmental transfer of public funds (i.e. allocation formula, local funding choices, and horizontal equity funds).<sup>56</sup> Evidence from these countries suggests that decentralization can contribute to, or at least maintain, equitable allocation of health resources among municipalities of different incomes. There were also positive effects seen in Colombia and Chile on health systems. The study describes how poorer communities being given new responsibilities for health via decentralization encouraged local communities to put sufficient resources into their health systems to provide an adequate basic minimum. No evidence of health outcomes was reviewed, but data from Colombia shows that a population-based formula for national allocations is an effective mechanism for achieving equity of expenditures. When the Philippines decentralized in the early 1990s, the share of total tax revenue allocated to local governments doubled from 20% to 40% and was distributed based on a formula of 25% equal share, 50% population, and 25% land area. This was followed by an increase in

---

<sup>54</sup> Bossert, Thomas et al. "Decentralization in Zambia: Resource Allocation and District Performance." *Health Policy and Planning* 18,4 (2003): 357-369

<sup>55</sup> Cashin, Cheryl et al. "Aligning Public Financial Management and Health Financing: Sustaining Progress Toward Universal Health Coverage" *WHO* (2017). Web. 13 Aug. 2017.

<sup>56</sup> Bossert, Thomas et al. "Decentralization and Equity of Resource Allocation: Evidence From Colombia and Chile." *Bulletin of the World Health Organization* 81 (2003): 95-100

local health spending. Local government expenditures increased 11% in 1992 and 52% in 1993, with health services accounting for 66% of the total cost of devolved national functions.<sup>57</sup>

Decentralization can also adversely affect risk pooling, a health finance mechanism frequently implemented as national health insurance. A study in Peru found fiscal decentralization at odds with efforts to increase pooled health funds. Efforts to improve risk pooling by channeling a larger share of health budgets through the national health insurance fund have been thwarted because officials were concerned it would conflict with the decentralization policy.<sup>58</sup> In countries with a high degree of fiscal decentralization for collecting revenues and setting priorities for expenditures, pooling is more fragmented if there is not a strong equity-based mechanism for redistribution. This lessens equity and financial protection in the health sector.<sup>59</sup>

---

<sup>57</sup> Bossert, Thomas et al. "Decentralization and Equity of Resource Allocation: Evidence From Colombia and Chile." *Bulletin of the World Health Organization* 81 (2003): 95-100

<sup>58</sup> Francke, Pedro "Peru's Comprehensive Health Insurance and New Challenges For Universal Coverage." World Bank (2013).

<sup>59</sup> Cashin, Cheryl et al. "Aligning Public Financial Management and Health Financing: Sustaining Progress Toward Universal Health Coverage" *WHO* (2017). Web. 13 Aug. 2017.



## IMPLICATIONS FOR POLICYMAKERS

This section highlights selected PFM interventions that were found to have the strongest evidence of impact on health system performance and health outcomes for policymakers. The discussion is organized from the perspective of relevancy to policymakers rather than PFM area or intervention. Some interventions were shown to be more effective than others in increasing health outputs with certain caveats and considerations for policymakers to be aware of when seeking the desired end.

### How to increase funding for health

Policymakers can increase funding for health through PFM by increasing tax revenue, prioritizing health financing, and increasing efficiency in health spending.

Improving tax policy and collection has **increased government tax revenue** overall. Pro-poor taxes, such as taxes on corporate gains, tailored personal and corporate income levels paired with and avoiding taxes on consumption can contribute to health results. However, even if taxes are increased or introduced, expected revenue can fall short due to inadequate administration, antiquated collection methods, and weak enforcement mechanisms. Policymakers should adopt PFM interventions that increase the efficiency and effectiveness of tax administration by reducing cost of compliance, increasing ease of compliance, and reducing corruption with system automation and adoption of a-risk based approach to enforcement.

Policymakers need to **make health a priority** for public financing. In many cases, increased general government revenue does not guarantee a proportionate increase in health funding. There are several ways policymakers can prioritize health spending:

- Policy advocacy which includes making the economic case for health in terms of impact on educational attainment, employment, and economic growth (advocacy complements the options below).
- Budget planning and budget justifications to make health financing a priority.
- Creation of a tax fund specifically for health such as dedicating a portion of tax revenues to health services.
- Introduction of taxes or fees earmarked for health, such as taxes on mobile phone calls, financial transactions, alcoholic beverages, and tobacco, although there is debate among experts as to the efficacy of earmarks.
- Decentralization of spending to the subnational level to increase local pressure and accountability to fund health, albeit the evidence is mixed.

Thirdly, policymakers can support efforts to **increase the efficiency of health spending**. Even if there is increased allocation of public funding to health, those funds may not be spent efficiently. The elements of effective expenditure include effective planning, controlled expenditure, and effective oversight. There were PFM-related areas to increase the efficiency of health spending:

- Policymakers may consider several interventions to improve planning such as introducing a Medium-Term Expenditure Framework (MTEF) or multi-year sector budgeting plan to improve predictability in health funding and consequently the health sector's ability to spend and achieve results in a more predictable manner. They may also consider better yearly planning—

looking at gaps in the needs collation, prioritization, and allocations processes.

- Automation of systems has shown effective to improve control of spending. The introduction of two interventions—IFMIS and e-procurement—have potential to reduce waste and fraud by increasing transparency and accountability. Procurement is often a source of corruption and ineffective political spending. E-procurement can reduce fraud and waste and reduce transaction costs as well as the cost of drugs, medical supplies, and other commodities. Integrated financial management information systems often are used to introduce greater control, transparency, and accountability into the expenditure process, reducing human error and corruption through a series of automated checks and controls enforced for all transactions. Although no research has been conducted on IFMIS' effect on the health sector, it is a proven PFM intervention that raises the budget process to higher levels of transparency and accountability and expedites government operations.

## How to make government health spending more accountable and responsive

As stewards of the health system and representatives of civil society, policymakers should take steps to improve oversight and increase accountability of health spending. Policymakers may consider several PFM interventions:

- Improving the analysis, visualization, and communication of health financing data to enhance understanding and use.
- Automation of some reports to increase transparency and accountability.
- Increased oversight via audit and reporting for better accountability within health systems and more transparency.
- Fiscal decentralization, the act of decentralizing control of health procurement, services and funding to local authorities to increase accountability and responsiveness and to create a tighter feedback loop for oversight.

## GAPS

More research is needed on the role of parliamentary oversight and policy environment. Our research did not unearth any results in these areas. Parliamentary oversight is a hallmark of democracy. It is able to hold the executive branch accountable for its actions and ensure that it implements policies in accordance with the laws and budget passed by the parliament. This is predominantly true in health. Executive action in health, particularly in developing countries, remains a top priority for government. However the research shows that despite the planning and even execution of health budgets, many priority measures are never fully implemented. It is, therefore, parliament's responsibility to oversee budget formulation and the implementation of policies to ensure that health priorities are fully funded and addressed.

More research is also needed on the role and effects of a Supreme Audit Institution on the health system. No research on the topic was found.

Improvements in budget classification—removing duplicates, miscoding, reducing the number of lines, or reducing the number of off-budget transactions—are seen to be key PFM interventions in many settings. While acknowledged as critical interventions for broader PFM outputs (budget transparency and clarity), no research regarding budget classification and its direct contribution to health was found. This could be a potential area for more research.

More research is also needed on e-procurement such as the procure-to-pay tool used in Kenya. As seen in one study, this is a good option for health system managers and procurement agencies to improve PFM and health outcomes simultaneously by reducing corruption time lag and increasing transparency.





## ANNEX A: REFERENCES IN ALPHABETICAL ORDER

- Akhtar, S., Reinikka, R. S., Heidenhof, G., Beschel, R.P., & Ahern, M. E. (2010). *Public Financial Management Reform in the Middle East and North Africa: An Overview of Regional Experience*. Washington, DC; World Bank.
- Alfonso, N.Y., Bishai, D., Bua, J., Mutebi, A., Mayora, C., & Ekirapa-Kiracho, E. (2013). Cost-effectiveness analysis of a voucher scheme combined with obstetrical quality improvements: quasi experimental results from Uganda. *Health Policy and Planning* 30(1): 88-99.  
<https://doi.org/10.1093/heapol/czt100>
- Andrews, M. (2010). *How Far Have Public Financial Management Reforms Come in Africa?* Working Paper. Cambridge, MA: Harvard Kennedy School of Government, Harvard University.  
<https://dx.doi.org/10.2139/ssrn.1724741>
- Annear, P. L. & Huntington, D. (2015). Case-base Payment Systems For Hospital Funding in Asia: An Investigation of Current Status and Future Directions. *Comparative Country Studies* 1(2): 1-138.
- Barasa, E., Cleary, S., Molyneux, S., & English, M. (2016). Setting Healthcare Priorities: A Description and Evaluation of the Budgeting and Planning Process in County Hospitals in Kenya. *Health Policy and Planning* 32(3): 329-337.
- Bossert, T., Chitah, M.B., & Bowser, D. (2003). Decentralization in Zambia: Resource Allocation and District Performance. *Health Policy and Planning* 18(4): 357-369.
- Bossert, T., Larrañaga, O., Giedion, U., Arbelaez, J.J., & Bowser, D.M. (2003). Decentralization and Equity of Resource Allocation: Evidence From Colombia and Chile. *Bulletin of the World Health Organization*, 81(2): 95-100.
- Brinkerhoff, D. W., & Bossert, T.J. (2014). Health governance: principal-agent linkages and health system strengthening. *Health Policy and Planning* 29(6), 685-693.  
<https://doi.org/10.1093/heapol/czs132>
- Cashin, C., Bloom, D., Sparkes, S., Barroy, H., & O'Dougherty, S. (2016). *Aligning Public Financial Management and Health Financing*. Geneva, Switzerland; World Health Organization.
- Cashin, Cheryl et al. (2017). *Aligning Public Financial Management and Health Financing: Sustaining Progress Toward Universal Health Coverage*. Geneva, Switzerland; World Health Organization.
- Couttolenc, B.F. (2012). *Decentralization and Governance in the Ghana Health Sector*. Washington, DC; The World Bank.
- Diamond, J. & Khemani, P. (2005). *Introducing Financial Management Information Systems in Developing Countries*. Washington, DC; International Monetary Fund.  
<https://www.imf.org/external/pubs/ft/wp/2005/wp05196.pdf>
- Doherty, J.E. (2015). Regulating the for-profit private health sector: lessons from East and Southern Africa. *Health Policy and Planning* 30(1): i93-i102.
- Durojaye, E., Keevy, L., & Oluduro, O. (2010). Gender Budgeting As a Tool for Advancing Women's Health Needs in Africa. *European Journal of Social Sciences* 17(1): 18-27.
- Elovainio, R. & Evans, D. (2013). *Raising and Spending Domestic Money for Health*. London, England; Chatham House.

- Family Planning 2020. (2017). *Costed Implementation Plans: Strengthening Investments in Family Planning*. <http://www.familyplanning2020.org/microsite/cip>
- Flink, I. J.E., Ziebe, R., Vagai, D., Van de Looij, F., Van 'T Riet, H., & Houweling, T. A.J. (2016). Targeting the Poorest in a Performance-Based Financing Programme in Northern Cameroon. *Health Policy and Planning* 31(6): 767-776. <https://doi.org/10.1093/heapol/czv130>
- Foster, M., Fozzard, A., Naschold, F., & Conway, T. (2002). *How, When and Why Does Poverty Get Budget Priority?: Poverty Reduction Strategy and Public Expenditure in Uganda*. London, England; Overseas Development Institute. <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/2051.pdf>
- Francke, P. (2013). Peru's Comprehensive Health Insurance and New Challenges For Universal Coverage. Washington, DC; The World Bank.
- Gani, A. (2009). Health care financing and health outcomes in Pacific Island countries. *Health Policy and Planning* 24(1): 72-81. <https://doi.org/10.1093/heapol/czn044>
- Garcia, J., & Parker, R. (2011). Resource mobilization for health advocacy: Afro-Brazilian religious organizations and HIV prevention and control. *Social Science and Medicine* 72(12): 1930-1938.
- Goryakin, Y., Revill, P., Mirelman, A., Sweeney, R., Ochalek, J., & Suhrcke, M. (2017). *Public Financial Management and Health Service Delivery*. London, England; Overseas Development Institute. <http://eprints.whiterose.ac.uk/116571/1/11463.pdf>
- Green, A., Ali, B., Naeem, A., & Ross, D. (2000). Resource allocation and budgetary mechanisms for decentralized health systems: experiences from Balochistan, Pakistan. *Bulletin of the World Health Organization* 78(8), 1024-1035.
- Health Finance and Governance Project. (2015). Bethesda, MD: Abt Associates Inc., Health Finance and Governance Project. <https://www.hfgproject.org/marshalling-evidence-health-governance/>
- Hipgrave, D.B., Alderman, K.B., & Anderson, I. (2014). Health sector priority setting at meso-level in lower and middle income countries: Lessons learned, available options and suggested steps. *Social Science and Medicine*, Vol. 102, 190-200. <https://doi.org/10.1016/j.socscimed.2013.11.056>
- Ivers, Noah et al. (2012). Audit and Feedback: Effects On Professional Practice and Healthcare Outcomes. *Cochrane Database of Systematic Reviews* 6. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000259.pub3/pdf/abstract>
- Jacobs, B., Thomé, M. J., Overtoom, R., Sam Oeun, S., Indermühle, L., & Price, N. (2010). From public to private and back again: sustaining a high service-delivery level during transition of management authority: a Cambodia case study. *Health Policy and Planning* 25(3): 197-208. <https://doi.org/10.1093/heapol/czp049>
- Kalau, M. E. (2016). E-Procurement Strategies and the Performance of Kenya Owned Parastatals. MBA Research Project. School of Business, University of Nairobi.
- Kiplangat, V., & Iravo, M. (2016). Factors Influencing Implementation of the Procure to Pay Systems within the Central Government Ministries in Kenya: A Case of Ministry of Health. *International Journal of Social Sciences and Information Technology* 2(9): 1067-1080.
- Kwamie, A., van Dijk, H., Ansah, E. K., Agyepong, I.A. (2016). The Path Dependence of District Manager Decision-Space in Ghana. *Health Policy and Planning* 31(3): 356-366. <https://doi.org/10.1093/heapol/czv069>

- Lakin, J., & Magero, V. (2014). Understanding Program-Based Budgeting: Toward Improved Budget Transparency in Kenya. Washington, DC; International Budget Partnership. <https://www.internationalbudget.org/wp-content/uploads/Program-Based-Budgeting-in-Kenya.pdf>
- Langenbrunner, J., Cashin, C., & O'Dougherty, S. (2009). *Designing and Implementing Health Care Provider Payment Systems: How-to Manual*. Washington, DC; World Bank. <https://openknowledge.worldbank.org/bitstream/handle/10986/13806/48599.pdf>
- Leruth, L., & Paul, E. (2006). *A Principal-Agent Theory Approach to Public Expenditure Management Systems in Developing Countries*. Washington, DC; International Monetary Fund. <https://www.imf.org/external/pubs/ft/wp/2006/wp06204.pdf>
- Lewis-Faupel, S., Negggers, Y., Olken, B., & Pande, R. (2014). *Can Electronic Procurement Improve Infrastructure Provision? Evidence from Public Works in India and Indonesia*. Cambridge, MA; National Bureau of Economic Research. <http://www.nber.org/papers/w20344.pdf>
- Mathauer, I., & Wittenbecher, F. (2012). *DRG-based Payment Systems in Low and Middle Income Countries: Implementation Experiences and Challenges*. Geneva, Switzerland; World Health Organization.
- Mayumana, I., Borghi, J., Anselmi, L., Mamdani, M. & Lange, S. (2017). Effects of Payment For Performance on Accountability Mechanisms: Evidence From Pwani, Tanzania. *Social Science and Medicine*, Vol. 179, 61-73.
- Meessen, B., Hercot, D., Noirhomme, M., Ridde, V., Tibouti, A., Tashobya, C.K., & Gilson, L. (2011). Removing User Fees in the Health Sector: A Review of Policy Processes in Six Sub-Saharan African Countries. *Health Policy and Planning* 26(2): 16-29. <https://doi.org/10.1093/heapol/czr062>
- Mohammed, J., North, N., & Ashton, T. (2015). Decentralisation of Health Services in Fiji: A Decision Space Analysis. *International Journal of Health Policy and Management* 5(3), 173-181. <https://dx.doi.org/10.15171%2Fijhpm.2015.199>
- Mu, Y. (2006). *Government Cash Management: Good Practice & Capacity-Building Framework*. Washington, DC; World Bank. <http://documents.worldbank.org/curated/en/918791468179361162/pdf/443440REPLACEM00ManagementOid918008.pdf>
- Munge, K., & Briggs, A.H. (2014) The progressivity of health-care financing in Kenya. *Health Policy and Planning* 29(7): 912-920.
- Okorafor, O. A., Thomas, S. (2007). Protecting resources for primary health care under fiscal federalism: options for resource allocation. *Health Policy and Planning* 22(6): 415-426. <https://doi.org/10.1093/heapol/czm032>
- Organisation for Economic Co-Operation and Development. (2017). [Table data of the Health Expenditure and Financing]. *Organisation for Economic Co-Operation and Development: Health Expenditure and Financing*. Retrieved from: [http://stats.oecd.org/index.aspx?DataSetCode=HEALTH\\_STAT](http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT)
- Oxman, A., & Fretheim, A. (2009). Can paying for results help to achieve the Millennium Development Goals?: Overview of the effectiveness of results-based financing. *Evidence Based Medicine* 2(2): 70-83. <https://www.ncbi.nlm.nih.gov/pubmed/21348993>

- Petrosyan, V., Melkomian, D.M., Zoidze, A., Shroff, Z.C. (2017). National Scale-Up of Results-Based Financing in Primary Health Care: The Case of Armenia. *Health System & Reform* 3(2): 117-128. <http://www.tandfonline.com/doi/pdf/10.1080/23288604.2017.1291394?needAccess=true>
- Powell-Jackson, T., & Mills, A. (2007). A Review of Health Resource Tracking in Developing Countries. *Health Policy and Planning* 22(6): 353-362.
- Prakash, T., & Cabezon, E. (2008). *Public Financial Management and Fiscal Outcomes in Sub-Saharan African Heavily-Indebted Poor Countries*. Washington, DC; International Monetary Fund..
- Rajan D., Barroy H., Stenberg K. (2016). *Budgeting for health, Chapter 8 in Strategizing for national health in the XXlth century*. Geneva, Switzerland; World Health Organization.
- Rajkumar, A.S., & Swaroop, V. (2007). Public spending and outcomes? Does governance matter? *Journal of Development Economics* 86 (2008): 96-111. [https://www.unicef.org/socialpolicy/files/Public\\_spending\\_and\\_outcomes\\_governance.pdf](https://www.unicef.org/socialpolicy/files/Public_spending_and_outcomes_governance.pdf)
- Rao, K., Petrosyan, V., Araujo, E.C., & McIntyre, D. (2014). "Progress towards Universal Health Coverage in BRICS: Translating Economic Growth into Better Health." *Bulletin of the World Health Organization* 92: 429-435. <http://dx.doi.org/10.2471/BLT.13.127951>
- Reeves, A., Gourtsoyannis, Y., Basu, S., McCoy, D., McKee, M., & Stuckler, D. (2015). "Financing Universal Health Coverage—effects of Alternative Tax Structures on Public Health Systems: Cross-National Modelling in 89 Low-Income and Middle-Income Countries." *The Lancet* 386(9990): 274-280. [http://dx.doi.org/10.1016/S0140-6736\(15\)60574-8](http://dx.doi.org/10.1016/S0140-6736(15)60574-8)
- Robalino, D., Picazo, O. F. & Voetberg, A. (2001). *Does Fiscal Decentralization Improve Health Outcomes? Evidence from a Cross-Country Analysis*. Washington, DC; World Bank.
- Sekabaraga, C., Diop, F., & Soucat, A. (2011). Can innovative health financing policies increase access to MDG-related services? Evidence from Rwanda. *Health Policy and Planning*, 26(2): ii52-ii62. <https://doi.org/10.1093/heapol/czr070>
- Shroff, Z.C., Bigdeli, M., & Meessen, B. (2017). From Scheme to System (Part 2): Findings from Ten Countries on the Policy Evolution of Results-Based Financing in Health Systems. *Health Systems & Reform* 3(2): 137-147. <http://www.tandfonline.com/doi/full/10.1080/23288604.2017.1304190?scroll=top&needAccess=true>
- Siddiq, A. (2017, May 18). Will the new WHO Director-General commit to end crushing healthcare user fees? [Blog post]. Retrieved from: <https://blogs.oxfam.org/en/blogs/17-05-18-will-new-who-director-general-commit-end-crushing-healthcare-user-fees>
- Sigulem, F., & Zucchi, P. (2009). E-procurement in the Brazilian healthcare system: the impact of joint drug purchases by a hospital network. *Public Health* 26(5): 429–434.
- Soe-Lin, S., Frankel, S., Heredia-Ortiz, E., & Makinen, M. (2015). *Tax Reform and Resource Mobilization for Health*. Bethesda, MD: Abt Associates Inc., Health Finance and Governance Project, December.
- Stotsky, J. (2016). *Gender Budgeting: Fiscal Context and Current Outcomes*. Washington, DC; International Monetary Fund. <https://www.imf.org/external/pubs/ft/wp/2016/wp16149.pdf>
- Sumaha, A. M., Baatiema, L., & Abimbola, S. (2016). The Impacts of Decentralisation on Health-Related Equity: A Systematic Review of the Evidence. *Health Policy* 120(10): 1183-1192. <http://dx.doi.org/10.1016/j.healthpol.2016.09.003>

- The Economist. (2017, May 3). What is Gender Budgeting? *The Economist*. Retrieved from: <https://www.economist.com/blogs/economist-explains/2017/03/economist-explains-2>
- United Nations Programme on HIV/AIDS. (2013). *Smart Investments*. Geneva, Switzerland; United Nations Programme on HIV/AIDS. [http://www.unaids.org/en/resources/documents/2013/20131130\\_smart-investments](http://www.unaids.org/en/resources/documents/2013/20131130_smart-investments)
- Vian and Collins, 2006. "Using financial performance indicators to promote transparency and accountability in health systems." U4Brief No. 1. U4 Anti-Corruption Resource Centre. CHR Michelsen Institute. October 2006
- Vian, T., & Bicknell, W.J. (2014). Good Governance and Budget Reform in Lesotho Public Hospitals: Performance, Root Causes and Reality. *Health Policy and Planning* 29(6): 673–684.
- Village Reach. (2016). *Delivering The Money: The Importance of Efficient Financial Flows for Vaccine Distribution*. Seattle, Washington; Village Reach. <https://www.villagereach.org/wp-content/uploads/2016/06/Final-20-Policy-Paper-Delivering-the-Money.pdf>
- Visser-Valfrey, M., & Umarji, M. B. (2010). *Sector Budget Support in Practice Case Study Health Sector in Mozambique*. London, England; The Overseas Development Institute.
- Waweru, E., Goodman, C., Kedenge, S., Tsofa, B., & Molyneux, S. (2016). Tracking implementation and (un)intended consequences: a process evaluation of an innovative peripheral health facility financing mechanism in Kenya. *Health Policy and Planning* 31(2): 137-147. <https://doi.org/10.1093/heapol/czv030>
- Wilhelm, V.A. & Krause, P. (2008). *Minding the gaps: integrating poverty reduction strategies and budgets for domestic accountability*. Washington, DC; World Bank.
- Wilkinson, Margaret. (1994). Paying for Public Spending: Is There a Role for Earmarked Taxes? *Fiscal Studies* 15(4): 119–135.
- Wirtz, N. (2015, May 22). Corruption Network in Guatemalan Health System Exposed. *Americas Quarterly*. Retrieved from: <http://www.americasquarterly.org/content/corruption-network-guatemalan-health-system-exposed>
- World Health Organization. (2016). *Public financing for health in Africa: from Abuja to the SDGs*. Geneva, Switzerland; World Health Organization. <http://apps.who.int/iris/bitstream/10665/249527/1/WHO-HIS-HGF-Tech.Report-16.2-eng.pdf?ua=1>



## ANNEX B: KEY INFORMANTS

Name	Affiliation
Ivor Beazley	OECD Health Team
Nana Boateng	Collaborative Africa Budget Reform Initiative CABRI
João Delgado	World Bank Mozambique
Sr. Furqan	World Bank Mozambique
Tom Hart	Overseas Development Institute
Jason Lakin	International Budget Partnership
Paolo de Renzio	International Budget Partnership