

Program Budget Structure in the Health Sector

A Review of Program-Based Budgeting Practices in Low- and Middle-Income Countries

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1. INTRODUCTION

This paper¹ addresses what may at first seem to be a very narrow (and rather dry) question, a speck on a blade of grass in the wider field of public financial management. We will argue, however, that appearances mislead and that the subject of this paper – program structure in program-based budgeting (PBB) – is central to some of the most fundamental questions in public finance reform. At the same time, the sectoral lens we use to examine it – a review of health budgets – allows readers to grasp why these questions are important in thinking more broadly about public administration and the achievement of important social welfare objectives.

Program budgeting is not new. The practice can trace its roots back decades to reforms in the United States and elsewhere (Diamond, 2003). Even in lower and middle-income countries, the focus of this paper, program budgeting and related budget reforms that try to orient budgets toward performance (results, outputs, outcomes and so on), can be traced back at least to Brazil's reforms in the 1960s, to Mexico's introduction of programs in the 1970s, and to Malaysia's reforms in the late 1980s (Shah and Shen, 2007; Secretaría de Hacienda and y Crédito Público (Mexico), 2015). These early reforms may not have been as ambitious or as results-oriented as current efforts, but both Mexico and Brazil began another round of related reforms in the 1990s, laying the basis for more fundamental reforms in the last two decades. In both Indonesia and the Philippines, the current reform processes are a continuation of what was begun at least a decade ago. In other cases, recent attempts at PBB are simply the latest efforts by countries that had initiated reforms in the past, but did not complete them. For example, some West African countries that are now slowly shifting to program-based budgeting (as a result of a 2009 West African Economic and Monetary Union directive) had launched program budgeting reforms previously in the 1990s (Roberts, 2003; UNION ECONOMIQUE ET MONETAIRE OUEST AFRICAINE, 2009).

While the approach is not new, currently there is considerable program budgeting reform underway around the world. One estimate puts the share of African countries planning to introduce or already transitioning to program budgeting at 80 percent (CABRI, 2018). Since 2010, countries as diverse as Burkina Faso, Brazil, Cambodia, Dominican Republic, Indonesia, Mexico, Niger, the Philippines, and Kenya have introduced or are in the middle of program budget-related reforms that have entered a new phase. Shifting government budgets toward performance may be the permanent "holy grail" of public finance reform, as Allan Schick has suggested, but the quest is very much on to judge by the current fervor around program budgeting reforms (Schick, 2013).

As countries introduce program budgeting or reform their existing systems, it is useful to examine global practice. While there is some literature that examines program budgeting specifically, much of it is more normative than

¹ This paper is based in part on additional case studies carried out by Paolo de Renzio (Brazil), Perkumpulan Inisiatif (Indonesia), and Jason Lakin (Mexico and Philippines). Available at: <https://www.internationalbudget.org/library/publications>.

empirical, more focused on performance than the mechanics of program structure, and more oriented toward rich than low- and middle-income countries. With some important exceptions, there is relatively little comparative empirical literature on program budgeting in low- and middle-income countries (Roberts, 2003; CABRI, 2013a). The existing literature also looks at program budgeting broadly, but without engaging in some of the difficult implementation issues that arise when governments actually try to apply it to operations in specific sectors, such as health.

This paper aims to contribute to the global knowledge of program budgeting in low- and middle-income countries, generally, and through the lens of program structure and its definition and evolution in the health sector, in particular. We define program structure as *the hierarchy of programs, sub-programs and other levels of organization of government activities that aim at a common objective, along with the indicators and targets that are designed to measure progress toward those objectives*. In order to narrow the scope, we primarily discuss program structure for ministries of health, even though we recognize that in many countries other agencies within the sector (such as public health insurance authorities) also have budgets, and sometimes program budgets.

Why focus on program structure? Ironically, while programs might appear to be at the heart of program budgeting, relatively little attention has been paid to how countries actually define their programs. Much of the literature that discusses program budgeting is, in fact, literature on performance budgeting and focuses on whether and how governments use performance data. This focus is unsurprising, as ultimately budget process and presentation reforms are not an end themselves, but, rather, are intended to lead to better fiscal outcomes and improved service delivery. Nonetheless, limiting the review to whether such reforms ultimately lead to improved performance misses important stages of the reform process and provides limited guidance to countries in the throes of undertaking these reforms on how to conceptualize or implement them.

Honing in on program structure in a particular sector, like health, allows us to deepen our understanding of design challenges through a consideration of concrete examples. These can illuminate broader themes and bring to life many of the real challenges that are sometimes obscured by theory. Moreover, the stakes are high in the health sector: if orienting government spending toward objectives and results matters anywhere, it especially matters when we are dealing with people's lives. To this end, this paper examines global practices related to program structure in the health sector in hopes of shedding light on how governments define program objectives as part of their broader quest to shift budgeting toward results that matter.

2. STRUCTURE OF THE PAPER & TERMINOLOGY

The next two sections of this paper (3 and 4) discuss program budgeting and the special significance of programs, respectively. The following three sections (5, 6 and 7) are organized around key themes: basic design issues when creating programs, common pitfalls in program design, and the role of different actors in the design process and subsequent oversight. Under each theme, we discuss relevant literature, provide additional insights from a review of budget documents from 30 low- and middle-income countries (see list in Annex A), and present a more in-depth investigation of Brazil, Indonesia, Mexico, and the Philippines, to complement, deepen or question the literature with illustrative examples. In the penultimate section (8), we consider the degree to which programs play the role they are meant to play, returning to their core functions as described in section 4. Finally, we try to draw some conclusions and point to areas for further work.

Before proceeding, it is worth offering a word about terminology. There is considerable confusion across countries (and analysts) about terminology in the area of program budgeting, and the word “program” can be used in many different ways. In this paper, we will use the word “program” exclusively to refer to budget programs, unless we are referring to the proper name of another type of program. In all other cases, we will refer to other types of non-budget programs as “initiatives” or “schemes.” While most countries implementing program budgeting have at least one level in their structure that they refer to as a “program,” there is more heterogeneity below this level. Some countries have sub-programs, while others use “actions” or other terms to refer to groups of activities below the program level. To the extent possible, we try to focus on the functions and purposes of different structures rather than the semantics. Finally, when we refer to specific ministries, we use their proper names, but otherwise we use the generic term “ministry” even when we are referring to countries that may formally have “departments,” “secretaries” and so on.

3. PROGRAM BUDGETING: BASIC CONCEPTS

There are numerous guides and primers on program budgeting, and we have no ambition to add to this inventory (Moindze, 2009; Robinson, 2013). But, as we will draw on them throughout the paper, this section provides a brief overview of the core concepts at the heart of program budgeting.

Program budgeting is rarely implemented on its own, which can make it difficult to disentangle from other reforms. For example, program budgeting is often a central part of more ambitious performance budgeting reforms, although programs can be formulated and funds allocated around objectives without adopting performance budgeting. Program budgeting is also frequently paired with the introduction of medium-term expenditure frameworks, because shifting the budget toward objectives and measuring achievement of those

objectives often entails multi-year planning and budgeting. Again, however, not all approaches to program budgeting emphasize planning to the same degree (Robinson, 2007, 2018).

At its most basic, program budgeting is a budget classification. The essential purpose of a budget classification is to frame the way we think about the intent of the budget. When a budget is organized around administrative units, it is framed in a way that encourages us to compare how much different agencies receive, rather than what they do with the money they receive. A program classification, on the other hand, is intended to frame our approach to the budget around the intended purposes of spending.

The foundation of the program classification is the set of objectives that governments pursue through the allocation of resources to different parts of the budget. These objectives are implemented through a set of activities, and measured through a set of indicators. The objectives define the “program” and, where these are broad, the “sub-programs” below them. In a program classification, budgets are allocated to the program and sub-program level, and may also be presented for activities.

We will use the term “program structure” in this paper to refer to the design of programs, including the following:

- program names
- program objectives
- indicators and targets used to measure progress toward those objectives
- sub-programs below the program level
- sub-program objectives
- any indicators or targets at sub-program level²

Not all countries undertaking program budgeting use the same terms to describe their program structure, but what matters is the structure and function of these items and not the terminology.

In determining program structure, countries must settle on their core objectives first. What are the main things that the health sector should achieve and toward which we should measure progress? Generally, by objectives we mean the intended outcomes of expenditure (Robinson and van Eden, 2007). A program may be oriented toward an outcome, but an outcome may be difficult to attribute to government action. There are always important external factors, over which government has limited control, that determine whether outcomes are ultimately achieved. As a result, we normally track progress toward outcomes by developing performance indicators and

² This is sometimes called a program classification, or a “programmatically budget classification,” but that term may refer only to the program names themselves, and not to the associated indicators. See for example Tandberg, et al 2009.

targets that may have an output character but that are believed to lead toward the outcomes we desire. These output measures ideally assess not only the quantity of outputs, but also their quality.

Beyond the major spending objectives, there are a large number of additional design choices that must be made as well. How many programs should there be? How large should they be? Should all of these programs reside in the Ministry of Health, or should other agencies or ministries be responsible for contributing to them as well? How should the administrative support needed to implement these programs be allocated? Section five of this paper investigates these design issues further.

In the next section, we focus on the special role that programs (and program structure) play within program budgeting and related reforms.

4. WHY PROGRAMS?

If the ultimate goal is performance, then are programs really necessary? A true believer in new public management might argue that we should simply put public managers on contracts, specifying the goals we want them to achieve and the targets by which they will be measured, and offer them sufficient funds to deliver these.³ Essentially, this perspective would imply that we need not worry about the intermediate steps. In practice, though, this extreme version of new public management exists in very few contexts. What has tended to evolve instead are attempts to shift public sector budgeting from a focus on inputs to something more balanced where the focus is on how managers convert inputs into outputs, with at least some concern for outcomes. Within this context, programs typically serve three functions.

PROGRAMS CAN IMPROVE TRANSPARENCY IN A RESULTS-ORIENTED BUDGET

One of the challenges with a performance orientation is conceptual: how do we get from the cash that the government collects to the outcomes we want to ultimately see? To answer this, governments have often resorted to logical models that link inputs and activities to outputs, intermediate goals, and final outcomes. The exact wording and the number of steps in this hierarchy will vary, but they are all related to some version of a “results chain” (Robinson, 2013). These kinds of models are designed to help foster a conversation among stakeholders about whether agencies are doing the right things with public money. In this context, programs serve as an intermediate conceptual step in the process of converting money into higher level outcomes by providing

³ Roughly, new public management refers to the idea of using private sector business management approaches in the public sector to encourage improved service delivery and efficiency.

mid-level objectives that guide stakeholders through the results chain. They make the results chain easier to follow and facilitate greater consensus about the process that government is following in its quest for results.

PROGRAMS ARE A TOOL FOR PRIORITIZING EXPENDITURE

Effective programs are not just conceptual, of course. If a program structure really does present a meaningful picture of the objectives of government spending, then it can serve its second function, which is as a tool of resource allocation. When policymakers look at the limited resources available to them, they need to make choices about where to direct those resources, based on the results they expect to achieve from spending more in one area than another. This prioritization exercise can only happen among a reasonable number of intermediate objectives. It is not possible to make such trade-offs among hundreds or thousands of activities, because doing so is simply too complex. Nor is it feasible to make them only among the highest outcomes of spending, because such outcomes are too far removed from the daily activities of government, depend on too many assumptions about how government action leads to results, and are ultimately determined at least in part by factors beyond government control. A reduced set of intermediate goals is manageable for making trade-offs, and provides sufficiently concrete information about government plans and their connection to desired outputs and outcomes.

PROGRAMS ARE A MECHANISM OF CONTROL AND ACCOUNTABILITY

It is theoretically possible to hold a minister to account for a slew of performance targets in her ministry, but practically a minister is far removed from the day-to-day management of each of these performance areas. A program is an intermediate level of accountability, where government officers have resources to use and concrete targets to meet. Within a program, it should be possible for managers to change their activities, as long as they continue to pursue agreed intermediate objectives. It should also be possible to interrogate their performance each year as resource allocations are considered for future years. This does not need to translate into a simple-minded reward and punishment system where programs that perform well are able to hoard funds while laggards are starved for resources. (A proper review of performance should not inevitably lead to such a result anyway: a program may perform poorly because it lacked sufficient funding, so cutting it further is unlikely to help.) Performance is always (at best) only one aspect of a budget decision. But most people would agree that program performance should enter into the conversation about future resources. Programs are used as a mechanism of control and accountability when governments allocate funds at program level, ensure that funds remain broadly within programs (with flexibility within them) and report back on financial and nonfinancial performance at program level.

In sum, if programs are designed to enhance transparency, facilitate expenditure prioritization and contribute to the accountability structure, then they deserve some consideration. Scrutinizing how programs are designed and

how they function is an important area of inquiry, and can ideally contribute lessons for countries undertaking program budgeting reforms.

In the next three sections of the paper, we review existing literature and pull in empirical evidence at the country level related to a number of themes that emerge when countries decide to set up a program structure. These themes overlap to some extent, but we believe disaggregating them into separate areas makes the discussion easier to follow. Under each theme, after we discuss relevant literature, we consider evidence from 30 countries whose documents we have reviewed, and from the smaller set of countries where we have also conducted interviews (Brazil, Indonesia, Mexico and the Philippines). Each theme ends with a short summary discussion of relevant points.

5. BASIC ISSUES IN THE DESIGN OF PROGRAM STRUCTURE

In this section, we consider basic design issues, such as the number and size of programs, their type and structure, and the formulation of performance indicators and targets.

NUMBER, SIZE AND LEVELS OF PROGRAMS

There is limited empirical work on the number and size of the budget programs that governments typically create. And from a normative perspective, few experts take a strict position on the “right” number or size of programs or sub-programs, deferring to local context and priorities. Analysts do nevertheless suggest there should neither be too few nor too many programs, and that these should be neither too big nor too small (Robinson, 2013). Other guidance suggests that the number of programs should generally range from five to 15, or three to eight per ministry, without offering these as rigid prescriptions (Robinson and van Eden, 2007; Moindze, 2009). In practice, the number of programs that analysts argue for may be larger, where the goal is simply to begin a process of consolidation from a starting point of a very large number of activities or programs (Dong Yeon Kim *et al.*, 2006).

Some guidance focuses on the share of the budget that activities or objectives consume, such as the advice that where an objective consumes at least ten percent of an agency’s budget, a separate program should be considered (Asian Development Bank, 2017). In practice, the number of programs may also be fixed by the finance ministry and imposed centrally (e.g., Ghana limited the number of programs to five for the Ministry of Health) or there may be criteria based on the resource requirements for different activities (e.g., Australia’s finance agency encouraged ministries not to create programs with budgets below a certain threshold)(Dong Yeon Kim *et al.*, 2006).

What factors might influence our thinking about the number of programs a ministry of health should aim for? One is the number of politically and socially salient objectives that a ministry undertakes to achieve (Asian Development Bank, 2017). Ultimately, the choice of priority objectives is a political and social matter, and political visibility is a driver of program structure. Programs are not just designed to fulfill budget-related objectives but to signal the political importance of certain government activities, and to provide additional transparency about government action in areas of particular importance to the public and to legislators.

Beyond this important political function of programs, we should also consider their three main purposes described above, and the degree to which the number and size of programs facilitates or inhibits expenditure prioritization and managerial flexibility. For example, many small programs may create an impossibly large number of allocative trade-offs for policymakers to review each year. If programs are the unit of appropriation and control, having many small programs also reduces spending flexibility during budget implementation, particularly if a country's budget laws restrict the shifting of funds between programs. On the other hand, too few programs are likely to mix disparate types of activity and objective together and make it difficult to use programs for expenditure prioritization purposes (Robinson and van Eden, 2007). This undermines the central purposes of a program, reducing transparency and complicating the process of prioritization of expenditure below the ministry level.

A basic tension inherent in the setting of programs is how to control tendencies toward overly fragmented or overly consolidated program structures. Political incentives often point toward fragmentation of the budget, both to give political "profile" to particular spending initiatives, and to create new fiefdoms for managers who can control some aspect of public funding. On the other hand, managers may also try to centralize spending in a single program to maximize their flexibility if there is little scrutiny of what happens below the program level.

Another important consideration is the relationship between programs and sub-programs. It is of course true that if a country opts for few large programs, they can compensate for this by introducing sub-programs or even sub-sub-programs. And if a country opts for many smaller programs, they can choose not to use sub-programs to avoid further fragmentation. However, note that as the size of programs increases, this can force sub-programs to either become larger (thus reducing the scope for prioritization) or to increase in number to cover the many sub-objectives within each program (thus making prioritization more complicated). In the extreme a country could have one program per ministry and then a set of sub-programs below, but obviously this raises the question of what the purpose of the program is. Such a structure simply converts sub-programs into what would be programs in another context. On the other hand, a ministry with 100 programs would not need sub-programs, but fragmenting activity to this degree makes decision-making more onerous, which again obviates the role of programs in the first place.

EMPIRICAL EVIDENCE FROM LOW- AND MIDDLE-INCOME COUNTRIES

Based on our assessment of 30 program budgets from lower and middle-income countries around the world (Annex A), the average number of programs under the ministry of health is eight (median=6); the minimum is three and the maximum is 31 programs. This is not radically different from the situation in the OECD where one estimate, from about a decade ago, suggested that they had on average 5 to 20 programs per ministry (Kraan, 2008).

Sub-programs are not as widespread as one might expect; while a majority of our sample has them, many countries do not. Assessing whether countries have sub-programs turns out to be more complex than assessing programs. Some countries have sub-programs clearly marked as such, including South Africa and the Philippines. In other countries, there are further breakdowns below the program level that seem to function like sub-programs, such as “actions” grouping together “activities” in some Francophone African countries. In Latin America, many countries use an approach to program budgeting that emphasizes products; there are no sub-programs in many cases, and there are large numbers of products that are more like outputs than sub-programs. Our assessment is that approximately 18 of the 30 countries in our sample have sub-programs.

Among our focus countries, Mexico clearly stands out for its large number of health budget programs. This has a long history, as Mexico began designing programs decades ago and then began revising its program structure in the last decade. There were over 1500 programs in 2008 across all of government; only a concerted effort to consolidate these programs in 2015 brought the number under 1000. At this time, the Secretary of Health also reduced its programs, but the total number remains over 30 (*Secretaría de Hacienda and y Crédito Público* (Mexico), 2015). Some of these programs, such as the *Programa de Vacunación* (Vaccination Program), long predate the shift to a results-oriented program budget and were not initially designed as budget programs.

Mexico’s health program structure is dominated by a small number of very well-financed programs, while a much larger number of small programs have more limited budgets. For example, in 2017, one program alone (*Seguro Popular*) accounted for more than half the budget and the top four programs together for roughly three quarters of the total health budget, leaving the remainder for 26 programs to share (less than 1 percent of available budget, per program, on average). Mexico lacks sub-programs, so it is not possible to disaggregate the budget for the largest programs further. Mexico’s program budget also shows signs of continuing fragmentation over time, with two new programs for cancer and transplants proposed for 2018.

This bulky program structure with extreme variation in program sizes and no sub-programs may complicate efforts to prioritize expenditure. It tends to make it appear that prioritization should focus on the few large programs, with less attention paid to smaller programs. In fact, this is misleading, as we will see further below when we

discuss the types of programs in Mexico's budget. On the other hand, this structure does not appear to undermine managerial flexibility, as Mexico's budget law does allow ministries to shift money between programs during the year, as long as certain restrictions on subsidy programs and economic classes are observed.

Brazil's program structure also has extreme concentration, to an even higher degree than Mexico. While the total number of programs is far lower than in Mexico, virtually the entire health system (the *Sistema Único de Saúde*, or SUS) falls under a single program: Strengthening the Unified Health System. This program takes over 80 percent of the health budget (not including salaries, which are allocated to a separate program). Clearly the large size of the Unified Health Service program, and the fact that staff expenses are located in a separate program, makes it virtually impossible to use the program level of the program structure for expenditure prioritization purposes.

However, Brazil does have a structure below the program level that consists of actions tied to objectives and that play a role similar to sub-programs. In fact, some of these "budgetary actions" were formerly programs before the merging and reduction of programs in 2012 (e.g., primary health care). This sub-structure could facilitate resource allocation, but suffers from the opposite syndrome observed at program level: there are roughly 1000 "budgetary actions" below the program level, complicating any effort to use them for expenditure prioritization purposes (although many of these actions are simply transfers to states and municipalities).

In the Philippines the health budget is composed of a much more restricted set of programs and sub-programs, more in line with global guidance. There are two administrative programs and eight operational programs with the latter further divided into 16 sub-programs. This is a large but manageable structure for facilitating trade-offs within the health budget. Initially, the health department had considered having just five programs, but these were eventually expanded to eight as a result of the decision to split up one larger program. This larger program, originally called "Support to Service Delivery" was split into four: the Health Systems Strengthening Program, the Public Health Program, the Epidemiology and Surveillance Program, and the Health Emergency Management Program. The decision to break this program up was made in order to make the budget structure more transparent, to provide more public visibility for public health and epidemiology activities (which were initially subsumed within it), and to facilitate alignment with the department's organizational structure and ensure greater accountability (we discuss the relationship between program and organization structure in more detail below).

Even after making this shift, 84 percent of the budget goes to just three programs, and one, Health Systems Strengthening (HSS), takes nearly 40 percent of the total budget of the Department of Health. While it remains concentrated, the decision to split public health from health system support did contribute to diffusion of the health budget. Had this not been done, more than two thirds of the total budget would have gone to the Support to Service Delivery program, further reducing the value of the program level for expenditure prioritization. The Philippines does have a sub-program structure which would still support expenditure prioritization, but the current

set of programs would have become sub-programs under this arrangement, reducing the visibility of government activity and the scope for making expenditure trade-offs.

Indonesia has nine budget programs in the health sector. The largest program is the National Health Insurance Support Program, which takes around 40 percent of the total budget in 2018. The second largest program is the Health Service Development Program and these two programs together absorb two thirds of the health budget. The National Health Insurance Support Program consists of a transfer to the national health insurance agency (*Badan Penyelenggara Jaminan Sosial*, the Social Insurance Administration Organization) to subsidize health insurance for the poor. The Health Service Development Program is also a transfer program, channeling resources both to national and subnational facilities.

Ironically, perhaps, one reason that the program structures are so concentrated in these countries is because of the fragmented and decentralized nature of the health system. Mexico's largest program is really a transfer/subsidy program supporting decentralized health services; this is also true for a significant share of the sub-programs under Brazil's largest program. A high degree of decentralization in the sector in these countries means that a large share of the health budget passes through these programs. In Indonesia, the disproportionate size of the health insurance program is due to the fact that it is a transfer program to a separate insurance agency. Indonesia's second largest program partly funds local health facilities, supporting the decentralized health system.

Most of the Philippines' budget also consists of transfers to subnational units. However, the causes of concentration in the Philippines' program budget are somewhat different: the Health Systems Strengthening (HSS) program is itself dominated by a massive infrastructure investment program targeting local health facilities, but controlled centrally. Essentially, the Health Facilities Enhancement Program, which is an activity (not a budget program) within the Service Delivery sub-program of the HSS program, controls virtually the entire capital budget for the Department of Health. While there is a human resource component to the HSS program, it seems to operate as a separate initiative from this capital investment scheme. Whereas the concentration of the Mexico and Brazil health budgets in a few programs is related to large resource flows to subnational units, in the Philippines it is partly caused by the existence of large centrally controlled schemes.

SUMMARY DISCUSSION

There are no hard rules governing the number of budget programs or sub-programs that countries should have in the health sector (or any sector). However, when thinking about the number of programs, it is important to keep in mind their principal roles, and particularly the degree to which they facilitate resource prioritization and expenditure management. The existence of many small programs can make it difficult to make trade-offs or to manage expenditure flexibly; having only a few large programs can increase flexibility but also inhibit prioritization,

especially when these programs bring together very different activities or product lines and when there is not an effective and manageable sub-program structure.

Most countries have at least partially decentralized health services, and this means that an important part of the health budget will consist of transfers to subnational units. Creating budget programs for such transfers can lead to resources being concentrated in few programs that do not facilitate expenditure prioritization. These transfers are often fixed by law and cannot be altered during the annual budget process. As we will discuss below, it may also be challenging to devise useful performance indicators for such programs. Finally, it appears that, at least in the health sector, a program structure that does not have at least two levels is likely to either result in too little transparency of government activities, or too many programs for expenditure prioritization.

TYPES OF PROGRAM

Programs in a program budgeting structure should be organized around objectives, but otherwise there is a lot of scope for fashioning programs in different ways. We refer to the various options for organizing programs and defining their objectives as “types.” A commonly found program type is one that aligns with the health ministry’s organizational structure, an issue which we will discuss further in the next section of this paper. Another type of health program is a “level of service” program, such as primary, secondary and specialized care. Programs may also follow functional or economic categories. And these types may also overlap. For example, if a ministry has programs that follow a level of service logic, but also has organized itself internally in that way, then its programs will be both organizational programs and level of service programs.

The literature provides almost no guidance on the question of how to define program objectives for health (or any specific sector). Whatever objectives are chosen, the program structure should pool together the different activities and approaches that help to achieve these objectives; activities that complement one another, or substitute for one another in achieving an objective should be linked (Dong Yeon; Kim *et al.*, 2006). This suggests, of course, that there should be a clear line between activities and objectives, and that programs should not be defined as activities (Robinson and van Eden, 2007). But this kind of advice is at best general: the provision of primary education or primary health care might be seen as activities, but defined in a certain way and with the right indicators attached, they can become “results-based programs” (Robinson, 2013). Whether the provision of primary health care or specialized hospital services is the right kind of way to define a program objective is not entirely clear, but it may be that this matters less than the way such programs are conceived (e.g., to what extent they focus on services and outcomes rather than activities).

An important question in thinking about program type is the relationship between functional classifications and program classifications. To some extent, there is an overlap between the notion of a function and of a program. A

function is meant to describe the purpose of expenditure, while programs are meant to describe the objectives of expenditure. At a broad level, making health services accessible to all (for example) might be seen as both a purpose and an objective of spending. Countries with well-structured functional classifications can and do try to align programs with their functions and sub-functions (Allen and Tommasi, 2001). A review of health functions in the United Nations Classification of Functions of Government (COFOG) suggests some overlap between functions and the types of programs countries employ:

FIGURE 1. U.N. CLASSIFICATION OF FUNCTIONS OF GOVERNMENT (COFOG): HEALTH

07.	<i>HEALTH</i>
07.1	Medical products, appliances and equipment
07.2	Out-patient services
07.3	Hospital services
07.4	Public health services
07.5	R&D health
07.6	Other

However, functional classification is intended to show how money is spent to achieve purposes regardless of the government’s organizational structure, and is usually offered as an alternative display of expenditure rather than used to appropriate or control spending. It is also commonly based on an international hierarchy (COFOG) and may not be consistent with country policy objectives. Considering the functional classes in Figure 1, while a distinction between public health and facility-based services may make sense for a program division, it is less clear that a distinction between hospital services and outpatient services captures meaningful differences at the level of objectives. Finally, program classification is intended to organize annual government spending around objectives and serve as a basis for appropriation. As we discuss below, it must have a relationship of some kind with the government’s organizational structure. This means that alignment between functional and program structures will at best be partial.

EMPIRICAL EVIDENCE FROM LOW- AND MIDDLE-INCOME COUNTRIES

In practice, countries have chosen very different types of programs, rooted in their history and organizational structures, as well as their aspirations. At least some of these programs are not new budget programs, but repurposed programs inherited from previous approaches to planning and budgeting. Table 1 compares our four focus countries against a number of program “types.” Clearly there is a lot of diversity. Interestingly, none of the four countries we focused on follow a “level of care” logic. Besides support programs, only the last category, which includes programs focused on health insurance or social protection schemes, could be found in all four countries. Even the apparent similarity of the programs in this last category is misleading, since in the Brazilian case this is a single large program for its entire health service, in both Mexico and Indonesia these programs are their principal insurance schemes, and in the Philippines, this refers to a special scheme rather than the main insurance scheme.

TABLE 1. TYPES OF BUDGET PROGRAMS IN FOUR COUNTRIES

	Brazil	Indonesia	Mexico	Philippines
Number of Programs:*	12	9	31	10
Administration and Support	7	2	2	2
HIV			1	
Infrastructure			3	
Training		1	1	
Level of care (Primary/ Etc.)				
Regulation of sector and/or policy			1	2
Immunization			1	
Health Research		1	1	
Health Service/ Insurance/ Social Protection	1	1	3	1

*The number of programs is the total number of funded programs visible in the 2018 budget and includes all administrative and support programs for comparability.

Most of the countries we reviewed – 26 out of the 30 – have at least one administrative or support program. Interestingly, and somewhat surprisingly, quite a number of countries have more than one such program in the health sector. All four of our focus countries have more than one such program. One reason for having support programs (discussed below) is to avoid allocating costs across programs when these are difficult to calculate, but the presence of multiple support programs suggests that some level of cost allocation is happening within support services. In some cases, this may simply reflect legal requirements or accounting systems that separate pension, salaries or other specific payments from other support costs. For example, in Brazil, such programs are related to contingency reserves, pensions, contributions to international organizations and other specific lines.

Very few countries have disease-specific programs. From our larger sample of 30 countries, only seven have disease-specific programs. However, this does not mean that diseases are ignored. Most countries that do not have a disease-specific program have either disease-specific sub-programs, or disease-specific indicators and targets. In our sample, 25 of 30 countries have disease-specific indicators. Mexico is the only one among our focus countries with a disease-specific program (HIV), but the other three countries all have indicators and targets that are related to specific diseases (e.g., malaria in the Philippines, cancer in Brazil, leprosy in Indonesia). This confirms the need for a holistic approach to program structure, one that looks not just at programs, but also to sub-programs and indicators, for an overall understanding of what the government is trying to achieve. Disease-specific programs can highlight particularly important challenges in a country, such as HIV, but in general, a single disease is somewhat narrow to function as an objective for the health sector. However, it is clearly important to retain the ability to track activity around major diseases, and the use of sub-programs and indicators can help countries to do so.

A similar point might be made about immunization, which features as an independent program in Mexico, for example, but not in the other countries we looked at closely, such as the Philippines, where it is captured as a sub-program (under the Public Health program). In theory, these types of decisions could have an impact on decision-making. Making immunization a program means that its budget may be determined in a contest with other programs, while designating it a sub-program would set it up to compete with other sub-programs. Taking the case of the Philippines, if immunization was a separate program as in Mexico, it would compete with the Public Health budget as a whole (as well as other programs), but since it is a sub-program, it currently competes with other priorities within Public Health, such as family health, environmental health and so on. In Mexico, there are no sub-programs, so immunization is theoretically competing with the other 30 programs in the health budget, including obesity, addictions, and the *Seguro Popular* insurance program.

In practice, the impact of choosing to make immunization a program or a sub-program may be minimal. In many countries, the budget for immunization is determined through separate processes due to the fact that vaccines are legally mandated by separate legislation (as they are in both the Philippines and Mexico), and/or partly funded by donors (Congress of the Philippines, 2011; Cámara de Diputados del H. Congreso de la Unión, 2018). Given that most vaccination programs aim for universal coverage of the population, they are often seen as special programs that are not in direct competition with other health priorities.

Mexico's vaccination program also brings to light another challenge around program design. The vaccination program in Mexico's health budget only covers a part of the funding for vaccines in the country. This is not surprising: after all, part of the overall vaccine initiative in Mexico is run by the social security institutes, which are autonomous and have their own budgets. However, even under the umbrella of the Secretary of Health alone, the vaccination program (E036) does not cover the full vaccine budget. The reason for this is that vaccines are partly

funded by *Seguro Popular*. Indeed, *Seguro Popular* funds various parts of the overall Secretary of Health budget, including specialized services provided under *Atención a la Salud*, discussed earlier. This points to a highly significant fact: the full cost of providing services is not recognized under each budget program in Mexico. In fact, the actual cost of delivering the Secretary of Health vaccination program is roughly twice as much as the budget for the *Programa de Vacunación* in the program budget.

When certain types of programs are funding streams for services provided by other programs, this points to a problem in program design. While this phenomenon may reflect organizational or political realities, it undermines both the transparency of the program budget and the ability of policymakers to use programs as a tool to prioritize expenditure across objectives. Mixing programs that carry out service delivery with programs that provide transfers or subsidies to other agencies that provide programs also renders the indicator structure less useful. After all, the performance targets associated with the *Programa de Vacunación* in Mexico are the responsibility of the *Centro Nacional para la Salud de la Infancia y la Adolescencia, CENSIA* (National Center for Infant and Child Health), but in fact they are not responsible for the entire program or its budget (contrary to appearances in the program budget).

Most countries have a mix of different program types. That is, they tend not to organize their programs exclusively around levels of care, or around organizational units, or around priority diseases. Instead, they tend to mix these approaches. It is not always easy to tell what the logic of programs is: their names may not match their activities, and may slightly differ from the names of organizational units or levels of care. In only 10 of the 30 countries in our sample were we certain that programs at least partly overlapped with the internal structure of health ministries. In only 10 cases did they seem to partly overlap with levels of care. This is consistent with the heterogeneity of program types seen in our four focus countries and in a separate but related WHO assessment. (Barroy, Dale, Sparkes, & Kutzin, 2018).

A second notable feature of program selection is that a number of countries have created separate programs for human resources, supplies or infrastructure, rather than integrating these input items into the programs to which they correspond (the objectives to which they contribute). For example, Brazil has allocated all of its staff costs to a single program in the health sector, while Mexico has separate programs for capital projects. Indonesia has a separate program for pharmaceuticals and medical devices. This suggests that many countries find it difficult to account for resources in an integrated fashion, as discussed further below in the section on cost allocation.

SUMMARY DISCUSSION

Program types vary considerably both across countries and within countries. These variations reflect a mix of varying legacies, different organizational structures, and different priorities. In general, it is difficult to say that a

particular type of program is better than another without looking holistically at the way that program, sub-program and indicators come together to organize what governments say they are trying to achieve. Whether specific priority diseases should be recognized as programs or sub-programs, or simply tracked through performance indicators, may ultimately be a matter of preference. Logically, the control and treatment of a single disease does not seem broad enough to represent an objective for the ministry of health, but in some contexts, the importance of a particular disease may warrant such treatment. The main question is whether the core objectives in which the sector should be investing are captured within the structure.

Perhaps a more important concern is the impact of including different types of programs in the program structure, when some are mainly sources of financing for others, or entitlement programs whose budgets are set outside of the budget process by other legislation. Mixing these different types of programs together can create confusion about which trade-offs are really available within the budget process and can be misleading with respect to the actual amounts that are being allocated to different priorities. This also occurs when separate programs are created for medical supplies, for health personnel or for capital investment in facilities, all of which make it difficult to understand the true costs for other programs that in fact draw on the resources in those programs. Ideally, programs should be structured similarly to the extent that they represent a good estimate of what it costs to deliver on particular objectives, and can thus be prioritized against one another.

DESIGN AND USE OF PERFORMANCE INDICATORS AND TARGETS

Program structure is not just about the objectives that define programs, but the measures used to assess progress toward these objectives. These normally take the form of indicators and targets that can be tracked over time. While these indicators and targets should have some bearing on discussions about resource allocation, “a one-to-one direct link between performance and budget allocation is neither desirable nor possible” (Shah and Shen, 2007).

Performance information is just one type of information that should be used to structure conversations with line ministries about their budgets and performance. There is evidence that performance information can help shift the culture of public organizations toward performance, but this is not always best achieved by creating tight links between performance data and budgets. Cultural change may be more sustainable when performance information is used to create spaces of dialogue around innovation and improvement (Moynihan and Beazley, 2016a). One should also have limited expectations of the potential impact of performance information relative to the impact of professional norms and capabilities of civil servants; performance information may actually be used most where it is needed least (i.e., where a culture of performance already exists) (Schick, 2014).

Within the OECD, there has been a shift in thinking about the value of reviewing performance indicators during the annual budget-making process. The budget process follows tight timelines that do not permit sufficient space for review, nor is it possible in many cases to assess the impact of policy change within a single year. As a result, some governments have introduced multi-year spending and performance reviews. These reviews are also designed to create more collaborative dialogue about how to improve performance, rather than viewing assessment mainly in punitive terms (Mackay, 2011; Moynihan and Beazley, 2016b).

A common problem in many countries is that enthusiasm for performance measures initially leads to the provision of too much performance information, which cannot be absorbed by oversight actors and in some cases cannot be regularly produced (CABRI, 2013a). The Netherlands started with an ambitious set of indicators and targets but eventually scaled back the performance information it included in the budget to focus on the most relevant indicators (de Jong, 2016). In fact, many, if not most, OECD countries have reduced the performance-related information they provide to try to make it more useful and easier to digest, often under pressure from legislators. This has not been easy to do, and countries that have reduced their indicators often still have an unwieldy set remaining (Moynihan and Beazley, 2016b).

Beyond information overload, the low quality of indicator information may be another reason why it is not used. Even in countries with advanced public finance systems, such as Australia, selecting realistic and meaningful performance indicators has often proven challenging (Mackay, 2011). Meaningful indicators may still be ignored due to the way that information is presented, when for example, financial and nonfinancial information is published separately (Shah, 2003). Also, program budgeting may introduce new information but remove old information that users find essential, such as that related to particular input or activity areas. Indicators and targets may be presented without proper baselines, may fail to align with what is in other planning documents, and may change too frequently to be useful. Budget narratives also frequently lack the explanations needed to make sense of expenditure priorities or its relationship to performance information (Lakin and Magero, 2015).

Agencies in many countries struggle to design an indicator hierarchy with clear distinctions between output and outcome measures, as the difference between the two is often not clear to policymakers (Asian Development Bank, 2017). Many of the indicators in program budgets are process indicators that ultimately measure inputs and activities rather than outputs, reducing the value of program budgeting (Tandberg *et al.*, 2009). In other cases, outcome measures have been selected that are too far removed from the daily activities of ministries to be a useful measure of performance.

A thorny issue in the literature on performance indicators is the relationship between external-facing and internal-facing indicators. In many countries, a set of performance indicators are used as part of the program budget and a different set are used for internal management and monitoring. External-facing indicators may be seen largely as a

matter of compliance with external requirements (Hawke, 2016). Ideally, external-facing indicators in the program budget are a subset of the most important indicators used internally, giving policymakers a sense of the big picture without burying them in details. But the exact relationship between internal and external indicators is not always clear in practice.

A final observation is that performance information may also not be used because politicians lack incentives to use it. The salience of performance information to the constituencies to which politicians respond matters, as well as the degree to which particular politicians are seen as responsible for those indicators. Politicians may wish to take credit for good performance, but they may primarily be concerned with deflecting blame for poor performance (Hood, 2011).

EMPIRICAL EVIDENCE FROM LOW- AND MIDDLE-INCOME COUNTRIES

Looking at our data, three of every four countries in our sample have program-level indicators. One way to create a multi-layered indicator framework is to have indicators at both program and sub-program level. This is not as common as one might expect: only six countries in our sample have both program and sub-program indicators (and targets). However, this is not the only way to create an indicator hierarchy, and as we saw above, many countries do not have sub-programs at all. A majority of the countries in our sample have output and outcome indicators, or another multi-level indicator scheme (of at least two levels).

Another indicator of the level of sophistication of a country's indicator framework is whether the indicators presented have baseline information. After all, there is no way to assess performance without knowing where we began. In our data, only about half of the countries with program indicators presented consistent baselines in the main budget documentation.

Brazil's product targets in the budget law lack baselines (although given how these indicators are designed, it is not always clear what the baseline would be). Indonesia is similar to Brazil, with indicators at the output level that lack baselines; they also use program-level indicators, but these lack both targets and baselines (although a limited selection of these do have targets—without baselines—in the budget notes).⁴ In Mexico, the annual indicator matrix published with the health budget also lacks baselines. The Philippines health budget has baseline information, but it is missing for a large number of indicators, evidence of an incomplete transition to the new system of program budgeting as of 2018.

⁴ See Indonesia's budget notes here: <http://www.anggaran.depkeu.go.id/content/Publikasi/NK%20APBN/Nota%20Keuangan%20Dan%20RAPBN%20T.%20A.%202018.pdf>

Among our focus countries, the approach to indicators varies widely. The Philippines is transitioning to a new indicator framework under the current Program Expenditure Classification (PREXC) reform (Department of Budget and Management (Philippines), 2016). This approach has outcome and output indicators for each program. Most programs have no more than a few indicators of each type, though the Public Health Program has nine outcome indicators, mainly related to specific diseases. We discuss the quality of these indicators further in the section on transparency, but some of the indicators seem unrelated to major activities of the program. For example, as we saw above, the Health Systems Strengthening program has virtually the entire capital budget of the DOH for investment in facilities but none of the indicators for this program relate to capital investment.

Brazil has indicators in the budget at the product level and does not have an indicator hierarchy. Many of these indicators are process or activity indicators, and they are often vague, consisting of just a pair of words such as “material produced” or “persons benefited.” For example, budgetary action 20YD on professional training (*Educação e Formação em Saúde*) lists a total number of beneficiaries as its output indicator (see Figure 2), but it is unclear whether this refers to the number of staff trained, nor is there any indication of the type of training or how the training is to be provided. On the other hand, because Brazil presents a budget for every budgetary action, and therefore every product, it would be theoretically possible to follow up on the allocation to each of these indicators and to learn whether results were achieved. In Indonesia, output level targets are also vague and difficult to understand. Most of them consist simply of units, such as a number of kilograms, without specifying what is being measured (or why).

As a general matter, while Brazil, Indonesia, Mexico and the Philippines all have a notional connection between the indicators and targets in their planning documents and their budget documents, in all four countries these links are tenuous. In Brazil, it is difficult to draw a clear line between indicators in the budget and those in the multi-year plan. As an example, consider Figure 2 below, which exhibits indicators and targets related to training in the health sector. It can be seen that there is some relationship between the plan and the budget, but the link is unclear. This is easiest to see by comparing the targets in the plan (PPA) and the output indicators (under the budgetary actions) in the budget (LOA Volume IV). While the budget targets might be a subset of the plan targets, it is not obvious that this is the case. This reflects a generally weak link between multi-year planning and annual budgeting in Brazil, in spite of the fact that these two functions are part of the same ministry.

FIGURE 2. BUDGETING FOR HEALTH TRAINING IN BRAZIL: COMPARING TARGETS ACROSS PLAN AND BUDGET DOCUMENTS

PLAN	BUDGET	
PPA 2016-2019	LOA 2018 – Volume II	LOA 2018 – Volume IV
Program 2015: <i>Strengthening of the SUS</i>	Program 2015: <i>Strengthening of the SUS</i>	Program 2015: <i>Strengthening of the SUS</i>
Objective 0721: <i>Promote training and permanent education, etc.</i>	Objective 0721: <i>Promote training and permanent education, etc.</i>	
Target 029N – <i>Achieve 38,500 scholarships for residency programs</i> Target 04HF – <i>Qualify 380,000 health professionals</i>	Budgetary Action 20YD – <i>Education and training in health</i>	Budgetary Action 20YD – <i>Education and training in health</i> No. of beneficiaries: 6,440 (<i>Fundação Oswaldo Cruz</i>) No. of beneficiaries: 58,910 (<i>Fundo Nacional de Saúde</i>)
Initiative 05TO – <i>Broaden access to permanent education for health professionals</i> Initiative 05UH – <i>Strengthen communities of practice and collaborative networks</i> [...]		

Source: de Renzio, P. (2018). *Defining and Managing Budget Programs in the Health Sector: The Brazilian Experience*. Available at: <https://www.internationalbudget.org/publications/program-budgeting-health-sector-brazil/>

In the Philippines, ministries have been encouraged to follow the Philippines Development Plan (PDP) and to tie their indicators to the Sustainable Development Goals, but the links between the plan and budget are again weak. For example, the plan (PDP) has an indicator for “malaria prevalence decrease,” but the Public Health program budget has an indicator for “number of malaria-free provinces”. While these are related, achieving each could entail somewhat different strategies (e.g., reducing malaria in low prevalence provinces may be a faster way to achieve the latter target but not the former). Similarly, for HIV, the plan (PDP) is focused on a decline in the number of new cases, while the budget is targeting an increase in the share of people already infected receiving treatment (National Economic and Development Authority, 2017).

In Indonesia, there are output targets below programs and activities, as we have seen, but the planning documents contain strategies and performance indicators at ministry level. Although many of the strategies do sound similar to the names of programs (and directorates) in the health budget, there is no direct link between the output targets in the budget and the ministry-level performance indicators in the planning documents. As mentioned

above, there are also program-level performance indicators in the budget, but these generally do not have targets and can only partly be linked to the strategy-level indicators. In cases where there is a link, the targets provided do not align. For example, the budget notes (Buku II of 2018 budget) do contain a target for the provision of food supplements to pregnant women with chronic energy deficiency of 517,000 pregnant women. In the planning documents, a similar indicator is mentioned, but the target is noted as 21.2 percent. The latter may refer to the share of women with chronic energy deficiency after the intervention, but this is not made explicit; there is no explanation of the link between the two different types of target in the two documents.

Mexico has the most complex indicator structure of our focus countries. Each program has four levels of indicator and target. A few years ago, the Secretary of Finance insisted that top-level indicators for each program should be derived from the multi-year national health plan (PROSESA). This has introduced at least two challenges. First, the sector plan is intended for the entire health sector, but the program budget under the health ministry does not include social security institutions that provide health services to millions of Mexicans. Thus, because sector-wide indicators require other actors that are not part of the ministry budget to contribute, these indicators are not necessarily appropriate for the health ministry to tackle alone through the budget.

Second, the indicators in the health plan are not necessarily top-level indicators. For example, the vaccination program (E36) has taken as its final goal the share of newborns receiving vaccines during their first year, which is from the national health plan. But the intermediate (purpose-level) indicators developed by the agency measure the degree to which children suffer from specific diseases that access to these vaccines should prevent. Clearly, the logical sequence is wrong here: the delivery of vaccines is the specific activity that the program undertakes and that should lead to the reduction in disease (*Gobierno de la República Mexicana, 2013*).

Even though Mexico's indicator framework is already quite elaborate, it is worth noting that the external-facing indicators in the indicator matrix that are published with the budget are not adequate for internal management. To that end, many agencies have established additional internal indicator frameworks for management purposes. For example, in 2016, the *Comisión Coordinadora de Institutos Nacionales de Salud y Hospitales de Alta Especialidad* (Coordinating Commission of National Institutes of Health and Highly Specialized Hospitals, CCINSHAE) developed an extensive indicator framework to guide its own management that connects to the program budget indicator matrix, and has been used to push for some changes in that matrix, such as the inclusion of a new indicator emphasizing the degree to which the referral system is functioning (*Comisión Coordinadora de Institutos Nacionales de Salud y Hospitales de Alta Especialidad, 2016*). This is a small example of how internal and external-facing performance indicators can work together.

Program performance information is not used to determine budget allocations in any of our focus countries. The Philippines is still in the early stages of implementing their programs, so it is too early to expect this information to

be used for budgeting. There is no evidence that performance information is used in formulation or review of the budget in either Brazil or Indonesia. In Mexico, there has been an attempt to synthesize performance information to make it more useful for policymakers. Since 2013, performance on various metrics is combined into a single score of 0 to 5 which can be used to assess programs and theoretically influence their budgets. But there is also limited evidence that this information is used during the budget process.

One final aspect of Mexico's approach to indicators speaks to the political incentives around using performance information. In Mexico, there is an independent agency that is responsible for the evaluation of budget programs in the social sector, and the measurement and provision of specific performance information more broadly. Known as CONEVAL, the *Consejo Nacional de Evaluación de la Política de Desarrollo Social* (National Commission for Evaluation of Social Development Policy) publishes the official measurement of poverty in Mexico, which it measures using a multi-dimensional approach that includes access to health services. Over time, CONEVAL has been successful at publicizing the performance of this indicator, which gets attention from the media and civil society. In part due to its salience with the public, both national policymakers and state governors do pay attention to it and seek to identify and fund budget programs that reduce poverty. Every year, CONEVAL submits to the Secretary of Finance an assessment of the budget programs that it considers to be highest priority for funding based on their contributions to reducing poverty, and this does receive some attention from the executive during the budget process (CONEVAL, 2017). This is a small example of how the use of performance information can align with political incentives in a way that can lead to greater use of this information, as well as greater equity in budgeting.

SUMMARY DISCUSSION

The opportunity to develop meaningful performance indicators that track the progress of government spending toward objectives is a major attraction of program budgeting. There are limits to the degree to which performance indicators measured annually can be used to effectively track performance or alter budget allocations. But indicators remain important both to help seed a culture of performance and to further clarify the results chain that sits behind the program structure.

Effective indicator frameworks have a hierarchy of indicators that range from more basic activity or process indicators to more advanced output and even outcome indicators. Most governments continue to face challenges in defining indicators of different types that measure outputs rather than activities. In addition, there is often inconsistency between internal and external-facing indicators, and between indicators in planning and budgeting documents. These inconsistencies reflect broader public finance management deficiencies, such as a lack of integration between planning and budgeting. Program budgeting is in part meant to resolve such defects, but there are obviously many organizational and political barriers to narrowing this gap.

Exploring whether and why indicators may not actually be used reveals design and political challenges. It is difficult to talk about the use of indicators when there are a confusing morass of indicators across documents rather than a unified structure. Aside from the poor design of indicators, however, the lack of political salience of many performance measures also renders them inert. Governments that want to see indicators used should consider how to raise their profile for citizens and media in ways that make failure to achieve performance targets something that politicians are actually concerned about.

6. COMMON PITFALLS

This section looks at the kinds of challenges that tend to arise in the design of programs, with a focus on two areas in particular: allocation of costs across programs, and the relationship between program structure and the organizational structure of government.

ALLOCATING COSTS ACROSS PROGRAMS

One of the biggest challenges in the creation of a program structure is how to allocate costs across programs. This matters because without proper allocation of costs among programs, it is difficult for programs to serve their expenditure prioritization function. Programs must entail the full costs of achieving different objectives, including both direct and indirect costs (overheads), or it is difficult to trade them off against one another (Diamond, 2003). For example, if staff costs are not properly allocated between two objectives, how can we decide how to share a fixed budget between them?

Arguably, resource allocation decisions require information not just about overall costs, but about marginal costs. In most systems, the budget is not zero-based: we start with a large number of commitments and ask how we will allocate small increments in revenue derived from enhanced collection or the termination of other funding commitments. The goal of expenditure prioritization is to choose these allocations based on the kinds of changes in program deliverables that can be expected based on small changes in budgets. However, this requires detailed information about marginal costs and specialized accounting skills that many governments lack (Diamond, 2003; Schick, 2008).

But the issue of cost allocation entails additional considerations. For example, it is often challenging to determine how to allocate human resource costs across programs, particularly where public servants serve more than one program. This can theoretically be done through time-recording systems, where staff record hours spent on different activities as in the private sector, but this may be beyond the capacity of most governments to manage or enforce, and it can undermine staff morale (Dong Yeon; Kim *et al.*, 2006; Robinson, 2013). Avoiding such

complexity makes sense, but it does put limits on the usefulness of programs as tools for prioritizing spending (Diamond, 2003).

Another challenge in cost allocation is how to relate current and capital costs. In general, current and capital costs together contribute to the achievement of program objectives. It is therefore inappropriate to design programs that are exclusively current or capital in nature and that fail to acknowledge these interplays (Diamond, 2003; Robinson and van Eden, 2007). However, the same problems that affect allocation of wages may also affect allocation of capital: if a single building is used to deliver different types of services, how should its costs be distributed? It may nevertheless be somewhat easier to manage capital than staff costs in some cases. For example, specialized hospital care programs use specialized infrastructure, and the costs of that infrastructure should be attributed to that program. Allocation of capital costs also raises the additional question of whether governments that are serious about cost allocation should shift to accrual accounting, which would allow more accurate estimation of the true costs of programs, particularly the costs of capital. For many governments, however, shifting to accrual accounting remains impractical (Diamond, 2003).

One approach to addressing the challenge of cost allocation for services that cut across a ministry or multiple programs is to create an administrative program that brings together these support services, or “corporate services” that provide internal support to ministry functions (Robinson, 2013). Many analysts accept this as a temporary solution, but argue that what is covered by such a program should be minimized and should be reduced over time, as more costs are allocated properly to specific programs and activities (Robinson and van Eden, 2007). Nonetheless, whether such approaches will eventually be reduced is not known, and will depend on the value that governments obtain from more precise cost information relative to the cost of generating that information. There is little empirical evidence that cost allocation for support services improves over time in countries implementing program budgeting.

Assignment of costs to administrative programs often will not resolve issues of allocation or classification. Administrative programs can become a catchall category for spending that is not administrative in nature but is simply difficult to allocate, making its content highly inconsistent across ministries, as happened initially in Mauritius (CABRI, 2010). In many countries, this can lead to various additional problems, such as the creation of programs with no allocated staff costs at all, because these have all been treated as “administrative” due to inability to allocate them properly. While understandable, such solutions ultimately undermine the core purpose of programs.

EMPIRICAL EVIDENCE FROM LOW- AND MIDDLE-INCOME COUNTRIES

As we saw above, most countries use at least one administrative program to handle costs that support other programs within ministries. In addition, some have programs that cater for human resources or for infrastructure (e.g., Uganda, Guatemala) that are separated out from the objectives to which these human resources or infrastructure contribute. Human resource programs related to training (e.g., Ghana) are not necessarily an example of the problem of cost allocation. The problem arises when staff salaries as a whole are not allocated to programs. For example, in Mozambique's program budget in 2014, no staff costs at all were allocated to six of the eight programs in the health sector, including the administration program and the program for decentralization of human resources.⁵

Among our four focus countries, all have at least one administrative program providing services to other programs within the health ministry. Both Brazil and Mexico have tried to implement more sophisticated cost allocation with overheads assigned to specific program budgets. Brazil eventually abandoned this approach as too complex by 2012, removing staff costs from operational programs. Interestingly, however, Brazil maintains separate programs within support services, isolating wages from pensions, contingency reserves and other types of payment.

In Mexico, staff costs are allocated across different programs, but national infrastructure spending is largely dominated by separate infrastructure (class K) programs, which are not clearly linked to the programs that they serve. Even if these infrastructure projects are headquarters projects, they should be tied to the administrative program for health. This complicates the program structure and artificially separates recurrent and capital spending. As we saw above, the fact that *Seguro Popular* is both a program and a funding source for other programs also limits the extent of Mexico's allocation of costs to programs.

In Indonesia, there are two internal facing programs that could be seen as administrative in nature. One is run by the General Secretariat, and the other by the General Inspectorate. It would seem that it is this organizational distinction that is behind the need for two different support programs, rather than one. Indonesia also has a program for Pharmaceuticals and Medical Devices. Presumably, medical supplies and drugs serve the provision of health care at different levels through other programs. The decision to keep these separate from other programs is an indication of challenges in the allocation of costs. Because Indonesia's program structure is entirely organized around the directorates within the health ministry, costs are allocated based on that internal structure.

⁵ See this supporting document from the 2014 budget with a program classification:
http://www.dno.gov.mz/docs/OE2014/OE2014_APROVADO_II/Mapas%20Integrantes%20da%20Lei%20AR%20-%20CPO%20-%20Finalissimo/Integrantes%20da%20Lei/MapaE.zip

The Philippines has two administrative programs (General Administration and Support, and Support to Operations). Some of the remaining operational programs do not appear to have any personnel costs, even though they likely do require staff to implement; none of the sub-programs under the Public Health program have personnel costs. In some cases, this could be because the national government is making transfers of commodities to regional units and those units are contributing staff time. However, under the Public Health program, most of these sub-programs involve only a single budget line for the central office in Manila. This suggests that proper cost allocation has not been fully achieved.

SUMMARY DISCUSSION

Shifting to program budgeting is primarily about the reallocation of costs to a logic that aggregates the spending around government objectives. This core agenda for program budgeting is also one of the most difficult to achieve, as it requires the assignment of costs to objectives, rather than to institutions, schemes, broad functions, or economic classes. While these other forms of classification face their own challenges, they tend to be more concrete and guided by international standards (such as the IMF's Government Finance Statistics). This is not the case for programs, which are more idiosyncratic. Determining the right share of wage or capital costs that supports different objectives may have no clear answer, yet failing to answer it undermines the rationale for program budgeting. While cost allocation does not have a perfect solution, governments should make an effort to estimate the degree to which wages, capital and other inputs contribute to specific objectives and assign these costs to those objectives. Doing so may involve investing in systems that take time to implement and will not immediately ensure proper cost allocation. It may also be the case that some costs should initially remain outside of the program budgeting framework, but should be accurately recorded rather than assigned to "administration." It is better to provide a realistic picture of government spending by, say, describing and isolating the health workforce than to create bloated administrative programs by assigning health workers to "administration" when they cannot be allocated properly across other existing programs.

RELATIONSHIP BETWEEN PROGRAM STRUCTURE AND ORGANIZATIONAL STRUCTURE

This is one of the most challenging topics in program design. Allen Schick famously claimed in 2007 that program budgeting often failed because "it cannot dislodge organizations as the basic decision units in budgeting" and that "organizations and programmes are fundamentally antagonistic" (Schick, 2007). Marc Robinson has argued forcefully against the necessity of alignment (Robinson, 2013). However, Robinson's position is not anti-alignment. His argument is that there may be good reasons not to organize programs to align with existing organizational structure, and that in some cases, it is the organizational structure that should change to suit the program needs.

Both authors recognize that there is a fundamental tension between program and organization. Robinson is arguably more sanguine about resolving that tension.

The broader question is one of accountability: who is going to take charge of the program objectives, control the necessary resources, and ensure that they are accounted for (Diamond, 2003; Kim, 2006)? It is theoretically possible to appoint a separate program manager to do this (Jacobs, Héris and Bouley, 2009; Moindze, 2009). But this just raises the question of how this additional manager relates to existing managers at organizational level. The question of how to assign responsibilities between organizational and program structures does not disappear, as Mauritius learned in the early stages of its program budgeting reform. In assigning responsibilities, a director and deputy director were sometimes assigned to different programs in Mauritius, which created confusion about reporting lines rather than enhanced accountability (CABRI, 2010). Schick argues that as a practical matter, most governments do choose to create programs that align with organizational structure, though he provides no evidence (Schick, 2007). Robinson suggests that in a “simplified” program structure, it is possible to resolve tensions by ensuring that multiple organizational units aggregate to a program, while avoiding splitting organizational units between multiple programs.

Of course, the introduction of programs could also drive organizational change, as Robinson suggests, leading to a new structure that resolves conflict by aligning organizations to programs. This is difficult to achieve, but not impossible; in the Australian state of Victoria, program budget-related reforms led to a reorganization and reduction in the number of departments from 25 to 12 (The World Bank, 2010). It also appears that Burkina Faso has recently reorganized the directorates within its health ministry to align with its new program structure (Barroy, André, & Nitiema, Forthcoming).

EMPIRICAL EVIDENCE FROM LOW- AND MIDDLE-INCOME COUNTRIES

At the level of the ministry, department or agency (MDA), our review of 30 countries found that only a handful (about 10 percent) have programs that cut across ministries or include multiple independent agencies within a single program structure. The norm is to create program structures within ministerial structures. Brazil is an exception. The bulk of the funding for the ministry of health goes to one program, but this program does involve multiple autonomous agencies within the sector. In Mexico, the program structure is confined to the Ministry of Health, but does include some autonomous commissions and agencies. In both the Philippines and Mexico, however, large autonomous health insurance agencies (such as IMSS in Mexico, or PhilHealth in the Philippines) have their own program budgets and are not part of the health ministry structure. This partly reflects differences in the health system, as Brazil’s system is not insurance-based. Many countries with public insurance schemes have created such insurance agencies as autonomous state corporations.

While maintaining programs within ministries may seem to simplify the accountability structure, the fragmentation of the health system and budget among multiple agencies challenges the notion of unified accountability for program results. As an example, consider Ghana's program budget for health. The Ministry of Health has five programs, and the second program focuses on health service delivery. Ghana Health Services, which is an agency within the Ministry of Health, has responsibility for this program, including delivering on its performance indicators. However, a very substantial share of funding for this program is derived from internally generated funds via the independent National Health Insurance Authority (NHIA), which reimburses facilities for services rendered. The NHIA is an autonomous state corporation and is not even mentioned in the program budget under the health service delivery program, yet there is no question that NHIA performance (such as timely reimbursement) is critical to the performance of this budget program. The fact that this is not explicitly discussed in the budget means that the program structure is simplified, but that simplicity does not reflect the real structure of the health system. It should be noted that Ghana has begun the process of bringing NHIA into the program structure in 2019, though it will remain a separate entity with its own program budget.

As alluded to above, the Philippines and Mexico face similar challenges to Ghana. In the Philippines' budget, the main insurer, PhilHealth, is not discussed at all in the Department of Health budget. In Mexico, programs are required to link their indicators to the sector-wide six-year health plan (PROSESA), but this plan was developed to embrace all agencies in the sector, including social security institutes that insure formal sector workers, yet the budget programs are specific to the Secretary of Health only.

This problem goes beyond insurance agencies: most health systems are fragmented and at least partly decentralized, creating a set of actors that have to contribute to the achievement of program objectives but whom are not explicitly recognized in the program design. However, some degree of decentralization is compatible with program budgeting where subnational units are recognized within the program documents, along with specific allocations and responsibilities. Some countries, such as Peru, publish health budget program allocations including disaggregated information on specific transfers to each subnational unit, but this does not include specific contributions to program targets.

Turning to the link between program structure and internal ministry structure, it is not always easy to tell when program structure aligns directly with ministry organizational structure due to slight differences in nomenclature. South Africa is a case where the link between organizational structure and programs is very clear: each program (except administration) corresponds to a single directorate within the national health department.⁶ In some other

⁶ Compare the budget programs with <http://www.health.gov.za/index.php/shortcodes/organisational-structure>

countries, the program structure partially mirrors the organizational structure, but at least some programs seem to cross internal organizational lines.

In Indonesia, the relationship between programs and internal structure is virtually complete. Programs appear to be a manifestation of internal ministry structure. There are nine programs and eight directorates within the health ministry. Only the General Secretariat, which runs an administrative program, has two programs within it, and the second program covers the health insurance subsidy transfer. All other programs are assigned individually to directorates with similar names. It is of course possible that the directorates are a reflection of the programs rather than the reverse. However, recent changes suggest otherwise. In 2016, the Nutrient Development and Maternal and Child Health program, which was implemented by the Directorate of Nutrient Development and Maternal and Child Health, disappeared and was replaced by another program with the same code but a new name: the Community Health Development program. This new program remains the only program implemented by this same directorate, suggesting that it is the departmental structure that determines the programs, and not the programs driving the directorates.

In Mexico, the relationship is partial. For example, the vaccination program is run by a single entity, *CENSIA* (National Center for Infant and Child Health). While *Atención a la Salud* (the health services program) involves more than twenty different institutions under the ministry, virtually all of these institutions are already organized into a central coordinating body which predates the program structure (the *Comisión Coordinadora de Institutos Nacionales de Salud y Hospitales de Alta Especialidad, CCINSHAE*). In other cases, such as the maternal, sexual and reproductive health program, it is less clear how the “responsible unit,” the *Centro Nacional de Equidad de Género y Salud Reproductiva* (National Center for Gender Equity and Reproductive Health), coordinates the other seven institutions that are responsible for the realization of this program’s targets, when it does not control their budgets. Each of the institutions involved in these multi-entity programs has a budget that is associated to the program, but there are no sub-programs or indicators for which an entity is specifically responsible within the program.⁷ The coordination among institutions appears to be more informal in nature.

In the Philippines, programs were created very recently in part to address the accountability challenges of the previous performance system, in which there were output measures but no programs (Department of Budget and Management (Philippines), 2016). There appears to be some partial overlap between the health department’s structure and its programs, and as mentioned above, facilitating this link is one of the reasons why an initial proposal to have five programs under the health department was expanded to eight. For example, the Epidemiology and Surveillance program was separated from a larger program, in part to accommodate the

⁷ The connections between the different classifications of the budget are complex. Taking the example of the Centro Nacional de Equidad de Género, it had a total proposed budget in 2017 of 2.091 million pesos. This comprises four functions under two programs.

Epidemiology Bureau within the Department of Health (DOH). The same overlap is evident in the case of health emergency and planning, where in spite of minor semantic differences, the programs and the directorates within the DOH appear to align. Nevertheless, there are twenty departments in the DOH and only ten programs (including the two administrative support programs), so these departments are nevertheless combined in various ways to link to the program structure. This may be achieved partly through sub-programs, but it is not obvious from the names of the sub-programs, and the Philippines budget provides very little information about what sub-programs are meant to do.

In Brazil, the vast scale of the main health program, *Fortalecimento do Sistema Único de Saúde* (Strengthening of the Universal Health System), obviously means that the program structure is not a simple reflection of the internal structure of the health ministry. As mentioned above, and uniquely among the cases we are considering, the program brings together all the major actors in the health sector: two foundations, two agencies, a hospital and the *Fundo Nacional da Saúde* (National Health Fund). Accountability is created at the “budgetary action” level (analogous to a sub-program), where each institution is responsible for a set of actions. These actions in turn have budgets associated with them as well as “products,” which are indicator/target pairs. However, the level of accountability is limited because the institutions in question are very broad and the directorates responsible for specific products are not provided. We can contrast this with a case like Argentina, where every program (and every activity as well) is assigned to a specific directorate within the health ministry.⁸

SUMMARY DISCUSSION

All countries undertaking program budgeting must create a structure that allows programs and government agencies to co-exist in a way that ensures that someone is responsible for delivering on program objectives. One approach to doing so is to give budgets to departments and put them in charge of programs, as in South Africa or Indonesia. Another approach is to specify in advance how agencies will contribute to program objectives and to budget for those activities with disaggregated budget lines attached to specific agencies. Brazil comes closer to this latter approach, though it does not assign specific responsibilities to directorates within larger institutions; by contrast, in Argentina, internal directorates within the ministry are assigned responsibility for specific programs and activities along with their budgets, creating clearer accountability lines. Looser structures that depend more on coordination and negotiation among various actors within the sector are also possible, as in Mexico, but they are less transparent and rely more heavily on informal coordination. This may be effective in some contexts, but it may weaken transparency and accountability in others. Assigning organizational responsibility need not happen at

⁸ See Argentina’s health budget here:
<https://www.minhacienda.gob.ar/onp/documentos/presutexto/proy2018/jurent/pdf/P18J80.pdf>

the program level, if it happens at the sub-program or indicator level. But, in most cases, clear accountability mechanisms of some kind are needed when multiple entities are involved in implementing a common objective.

7. PROCESS AND ACTORS

This final theme looks at the way that various actors interact to develop and refine the program structure. We start with the original process of design, which is typically dominated by line ministries and ministries of planning or finance (and sometimes other central agencies). We then look at the role of other actors, which we refer to as oversight actors for shorthand. These include legislators, auditors and the broader public.

THE PROCESS OF DESIGNING PROGRAM STRUCTURE

Designing program structure inevitably involves at least the planning/finance and health ministries. Theoretically, it could involve legislators or members of the public as well, since one of the goals of program structure is greater budget transparency. However, the literature suggests that there are few cases where legislators or members of the public are involved directly in program design.

The literature also suggests that line ministries need considerable hand-holding from a dedicated and centralized team that can ensure quality control across government (Tandberg *et al.*, 2009; The World Bank, 2010). Often finance ministries fail to provide sufficient guidance to line ministries, or to “challenge” their proposed program structures (Asian Development Bank, 2017). An equally important concern is the degree of ministerial ownership of programs, especially when line ministries are resistant to the overall reform. This necessitates a delicate balance between finance ministry guidance and allowing ministries a level of autonomy to define their own objectives (Robinson and van Eden, 2007). The quest for a balance between central control and guidance versus ministerial ownership and autonomy is of course not unique to the design of programs, but is embedded in other aspects of the planning and budgeting process as well (CABRI, 2013b).

EMPIRICAL EVIDENCE FROM LOW- AND MIDDLE-INCOME COUNTRIES

Finance ministries have been more involved in designing program structure in some of the countries we have reviewed than in others. In the Philippines, the Department of Budget and Management (DBM) focused on the broader reform and selection of indicators, but allowed ministries to design their own programs and sub-programs. This decision was taken to give ministries more ownership of program budgeting and reflected a desire to reduce tensions that had emerged during previous rounds of reform. While the DBM did not take control of the program process, it did organize workshops and make proposals for program structure. These meetings did not resolve all of the disagreements between DBM and the line ministries, but they may have helped achieve greater

coherence within ministries. Some of these meetings were apparently the first time that the planning and budgeting teams within some ministries had actually met one another.

In other countries, finance ministries and other central agencies have been more actively involved in shaping programs. In Mexico, the design of a new health program must be approved not only by the Secretary of Finance, but also by CONEVAL (*Consejo Nacional de Evaluación de la Política de Desarrollo Social*, no date). However, as noted above, the existing program structure is also a legacy of previous program structures that were designed for other purposes and over which the Secretary of Finance had less control. While Mexico's finance ministry has attempted, particularly in 2015, to reorganize the program structure and consolidate programs, this has only partially affected the final program structure. Where the finance ministry has had more impact is on the performance indicators, discussed earlier.

In Brazil, the program structure also represents the results of a negotiation between planning and line ministries, but the planning ministry has tended to dominate this process at program level, while ministries are given more freedom at the "budgetary action" level. The planning ministry pushed for and successfully achieved a radical reduction in the number of programs in the health ministry during the preparation of the 2012-15 multi-year planning process. The health ministry was apparently comfortable with the shift to a single large program that encompasses nearly the entire sector, in part because it believed that this would maximize its flexibility during budget implementation. The health ministry has more control over the determination of the budgetary actions within the program, although shifts during the year between such actions (equivalent to sub-programs) require approval from the planning ministry.

In Indonesia, programs have been fairly stable, due in part to the tight link with organizational structure. The exception proves the rule: the decision to create a separate program for the national health insurance support transfer in recent years has simply elevated an existing activity within the ministry to program level, thereby increasing its visibility. The creation of this new program did not involve new budgets or new activities. In general, a proposal to modify a program must first be approved internally by the General Inspectorate for the ministry, and then be reviewed by both the Ministry of Finance and the National Development Planning Agency.

None of the cases we examined provide examples of engagement with legislatures or the public on the original formation of programs. We return to the role of the legislature and the public in the section on oversight actors below, where we will see that they are sometimes able to give feedback at later stages in the development of the program structure.

SUMMARY DISCUSSION

Finance ministries usually provide guidance to line ministries when program structures are initially developed, but leave them substantial freedom to define their objectives, and thus their programs and sub-programs. While finance ministries must always strike a balance between guiding line ministries and allowing them to take ownership of their program structures, the evidence suggests that ministries of health usually receive insufficient guidance on how to develop their program structure, leading to some inconsistencies among programs. While there may be limits to what finance ministries can do at the outset of the design of programs, they can and do introduce more stringent standards for revisions to the program structure, or to the introduction of new programs. It is also possible that opening up the program design process to other actors in civil society or legislatures could help create more coherent structures, though this is largely an unexplored area.

THE ROLE OF OVERSIGHT ACTORS

Program budgeting systems generate additional information about government activities and performance, but this information has to be used by other actors in order for it to have an impact. This is a challenging area in many countries, as we discussed in the section on indicators and targets. To a certain extent, the literature can be read as suggesting that shifting toward program and performance budgeting mainly creates new opportunities for horizontal accountability by other government institutions checking the executive, rather than vertical accountability of government to citizens.

Supreme audit institutions (SAIs) have played an important role in providing a horizontal check on program structure, and some analysts have argued that their role in monitoring performance budgeting will continue to increase and become routine (Schick, 2008). Recent evidence from OECD countries suggests that auditors are indeed playing a significant role in monitoring not only whether performance indicators are met, but whether they are appropriate measures of performance (OECD, 2016). In Australia, this evaluative role was enshrined in law in the 2011 reform of the Auditor-General Act (Hawke, 2016).

Legislatures have also played a role in program budgeting. Often this has been to push back against it, or to insist on simplification of the information presented. Legislators have often preferred line-item input control to the murkier world of programs (Diamond, 2003; Moynihan, 2016). When the Kenyan government presented its first program budget to parliament in 2013, legislators refused to accept it and demanded the return of the traditional budget. Legislatures rarely take a lead on program budgeting, but there are exceptions, such as the U.S. state of Hawaii in the 1970s, where the legislature forced the executive to introduce a form of program budgeting (Dong Yeon; Kim *et al.*, 2006). Legislatures in some countries, such as Australia, have also been proactive in pushing for the inclusion of performance information, as well as its redesign (Hawke, 2016).

EMPIRICAL EVIDENCE FROM LOW- AND MIDDLE-INCOME COUNTRIES

Among the countries we looked at, there are several examples of auditors engaging in this kind of horizontal oversight. In Mauritius, the National Audit Office prepared a published report on the program budget system in 2009, and gave subsequent comments on it in 2011, in both cases reflecting on challenges with the program structure (National Audit Office Mauritius, 2009). In Mexico, the ASF has been very active at a high level of detail in reviewing budget programs and indicators and targets. In 2016 alone, fourteen program-level performance audits were carried out for programs under the health ministry.⁹ Mexico's CONEVAL has also carried out and published multiple evaluations of budget programs in health. In the Philippines, the auditor carries out performance evaluations that draw on the indicator framework in the budget and raise queries where the evidence to support improvements is weak. The countries with the weakest evidence of audit oversight in our closer review are Brazil and Indonesia, where there is more focus on the auditing of compliance and less focus on the auditing of results.

Among the countries we reviewed, there are few examples of significant legislative or public engagement with program structure. At least some legislative involvement occurs in the Philippines. Legislators in the Philippines do review budget program structure and performance to some extent, and discuss it during budget hearings, though as in other countries, they are often less interested in programs than in more detailed allocations at the project or activity level. The Philippines Legislative Budget Research and Monitoring Office in the Senate has lauded the indicators in the Public Health program as the only indicators specific enough for legislative oversight. This program's outcome indicators are disease specific and are defined in terms of regional coverage, both of which presumably allow legislators to more directly connect program performance to the concerns of their constituents.

Mexico's legislators have amended the program budget to increase the budget for the specific programs that they wish to profile, but there is little evidence of their engagement with program structure or performance information in the budget (Instituto Belisario Dominguez, 2018). In Brazil, legislators tend to focus on specific lines that they can introduce into the budget, *emendas parlamentares individuais* (individual parliamentary amendments) to benefit constituents. In Indonesia, oversight is reactive, limited to addressing specific claims raised by constituents rather than broad oversight of program performance.

Members of the public and civil society are not using the information produced by the program budget in any systematic way in most countries. One interesting effort to bring citizens into the program budget was attempted in Mexico in 2016. In that year, the finance ministry opened up the process of reviewing program indicators to the

⁹ Audit findings from performance audits can be viewed at <http://www.asfdatos.gob.mx/>. To cite one relevant example, in 2016, the ASF raised a query about why the denominator for an indicator related to the accreditation of medical facilities had been reduced from 1178 medical establishments to 700 (which obviously would raise the rate of accreditation for the same number of facilities accredited).

public. Citizens (especially civil society organizations and educational institutions) were encouraged to download the existing indicator/target matrix and give comments on it (*Secretaría de Hacienda y Crédito Público (Mexico)*, 2016). The government received over 200 submissions and used this input in subsequent discussions with agencies about revising their indicators. CONEVAL also tracks the use of its evaluations by media and civil society actors, and points to a number of cases where civil society organizations have used its findings in its advocacy work.¹⁰

SUMMARY DISCUSSION

Program budget systems are increasingly generating data related to government's objectives and performance, but few actors are regularly using this information. The main exception to this rule seems to be supreme audit institutions and other evaluation bodies, which are increasingly reviewing program data as part of their performance audit agendas. There is considerable scope for legislators and citizens to make more use of such data, and to become more active in determining what goals government should focus on and how to measure it. Mexico's small experiment with public consultation on program indicators in 2016 is a promising start.

8. DO PROGRAMS WORK? TRANSPARENCY, EXPENDITURE PRIORITIZATION AND ACCOUNTABILITY

This section returns to the three functions of programs laid out in section four: enhancing budget transparency, helping policymakers to prioritize spending, and ensuring control and accountability for the use of funds. Drawing on some of the previous sections and adding additional details, we briefly assess how well programs play each of these roles.

ENHANCING TRANSPARENCY

One reason for shifting to program-based budgeting is to enhance transparency (Kim, 2006). The shift toward programs is intended to deemphasize inputs and hone in on the outputs and outcomes of spending. But, in most cases, oversight actors and citizens still want to partially monitor inputs. This is an important tension embedded in program budgeting: how to design the program structure to achieve the shift toward outputs without losing all of the important information on inputs which would, in the eyes of its users, make the budget less transparent.

Many countries initially struggle to design a program classification that actually enhances rather than reduces transparency. This may be reflected in vaguely named programs or in the way that spending within programs is

¹⁰ See CONEVAL tracking tool here: <https://coneval.org.mx/quienessomos/ComoNosMedimos/Paginas/Uso-de-la-informacion-del-CONEVAL.aspx>

classified. For example, when a majority of spending is classified as “other,” there is likely a problem with the classification system in use, since it is not promoting allocation of costs to the main classes of expenditure. In Kenya, 45 percent of the Ministry of Health’s 2016/17 capital budget was for “other development” expenditure. In the case of the Health Promotion sub-program, 92 percent of the budget was for “other development,” undermining transparency and presenting clear evidence of an ineffective classification and cost allocation system (Republic of Kenya, 2017).

At a minimum, program budgets should provide a useful narrative discussion of the budget that is rooted in a logical connection between choices on what to fund and what that money produces, ideally at the output and outcome level and not just at the input level. This means that governments need to include explanations of program objectives and performance measures, and ideally should base these in either a formal logical framework or an alternative but comparable approach that connects government activities to ultimate goals.

In the Philippines, agencies have produced more detailed narratives related to their program which are submitted to the Department of Budget and Management. These documents are not part of the budget submission, however, and thus do not inform legislative or public discussion. While these “Form A” submissions are not comprehensive (they do not, for example, describe sub-programs), they do explain the program’s objectives and strategies, and provide some indication of how regional performance will be monitored.

Indicator frameworks can be more or less explicit about the approach that they follow. Mexico explicitly uses a four-level logical framework approach. The Philippines is in transition toward a two-level output-outcome approach. A number of countries in Latin America, including Brazil, provide indicators at the “product” level, without a clear hierarchy. Indonesia has indicators at the output and the ministry level, as well as program indicators without clear targets, but the budget lacks a clear indicator hierarchy. In Armenia, there are numerous activity indicators, but no program indicators that synthesize these into a smaller set of performance measures (Dale, Kyurumyan, & Kharazyan, Forthcoming) .

The lack of a clear indicator hierarchy can make it harder for legislators and citizens to understand the results chain. The solution lies in better budget documents, but also in better supporting documentation behind each program. In Peru, each health program has a background document (*Anexo 2*) with an elaborate specification of the logical model by which the government intends to address a policy problem. In this document, there is an indicator framework that starts at the product level and specifies product-level indicators, specific results

indicators and final results indicators. Moreover, this presentation is particularly transparent because details are provided about the data source for performance indicators and the method of calculation.¹¹

One of the biggest challenges most countries face is that the number and sophistication of their indicator frameworks often exceeds the narrative in the budget that explains these frameworks. Mexico relies heavily on its indicator matrix, but it is not self-evident in many cases how the four levels of indicators relate to one another. As we have seen, the hierarchy does not always follow the logical model, in part because the sector plan is superimposed on top of the program indicators. While proposals for new or revised programs require ministries to revisit the logical framework behind each program, existing programs may not have an accessible document laying out the assumptions in their indicator matrix. There are such documents for some strategies within the health sector, but these are often for broader health sector initiatives, or specific organizational units, rather than budgetary programs.¹²

In addition, indicators may themselves serve multiple purposes. In Mexico, as we saw earlier, the CCINSHAE lobbied successfully to include an ultimate goal indicator in 2016 that measures the extent to which patients accepted at specialty hospitals were referred by other levels of care within the health system (as opposed to avoiding the referral system and going straight to a specialty hospital). This is not really a final outcome for a budget program, but it was inserted into the framework to raise the profile of a systemic problem in the health system, and so it deliberately eschews the logical model.

PROGRAMS AS A TOOL OF EXPENDITURE PRIORITIZATION

As we described above, one of the three main purposes of a program structure is to facilitate the prioritization of some expenditures over others (Kraan, 2008; Robinson, 2013). Governments pursue multiple objectives within each sector of operation, and have to prioritize among these. In a typical budget process, a sector or ministry is given an expenditure ceiling and must then choose an allocation of resources among a number of competing priorities. Programs should facilitate this process by allowing policymakers to connect resource allocations to the desired outputs and outcomes that this spending contributes to.

¹¹A summary of the annexes for each program is found here:

ftp://ftp2.minsa.gob.pe/descargas/Transparencia/07Presupuesto/presxres/2016/Informacion_PpR_Fto_Definicion.pdf

¹²There are Programa de Acción Específico (PAE) documents for various health initiatives. However, to take one example, the PAE for vaccination is for the “universal vaccination” program, which is slightly different from the budget program (simply called vaccination program), as the PAE also includes the social security institutes. Other PAEs are for specific agencies (e.g., the quality and education directorate) or for cross-cutting initiatives that do not fall under a single budget program (e.g., infant and adolescent health).

In actual fact, program structures are often not used effectively in this way (Hawke, 2016). This may be due to the fact that programs are simply a paper fiction, prepared and pasted on top of a budget that is actually organized and allocated in other ways. Of course, governments sometimes pilot program budgeting in exactly this way: as an alternative (“indicative”) display of expenditure that is only designed to gradually replace traditional budgeting as a basis for allocation and appropriation (CABRI, 2010). In Estonia, the budget law allows but does not require ministries to appropriate by program, presumably with the intention of encouraging more of them to do so over time (Raudla, 2016). Sometimes countries that take this gradual approach make a full shift to program-based budgeting, as happened in Kenya after an initial trial period with a parallel, “indicative” program budget. In other cases, progress stalls, as happened in Namibia when it tried to shift from a presentational display to putting programs at the core of budgeting in 2009. This was due at least in part to lack of capacity within government to shift to a program basis for budgeting (CABRI, 2013b).

Of the countries we assessed, programs are, at best, only partially used to prioritize expenditure. This reflects several factors. First, there are important rigidities built into the health budget in each of the focus countries. As we have seen, some of this can be attributed to decentralization. Significant parts of the budget are allocated for decentralized services, and the rules governing these transfers are restrictive and are often decided outside of the budget process. For example, in Mexico, *Seguro Popular* is funded based on beneficiary levels as mandated by the health law, not the budget law.

Another weakness in program design is poor cost allocation. If the true cost of implementing a program is not known because part of its budget is under a different program, this makes it hard to use the program structure to allocate resources effectively. In Brazil, the fact that staff costs associated with the main budget program for health do not fall within that program is an example where the design of programs renders expenditure prioritization problematic. The same is true, as we saw, for Mexico’s vaccination program.

In Indonesia, it appears that the organizational structure remains the primary basis of expenditure allocation. Other than the national health insurance program, it is difficult to differentiate directorates from programs. Finally, in the Philippines, programs are new with the 2018 budget, and it will take some time to shift the approach to expenditure prioritization.

ACCOUNTABILITY AND CONTROL

Whether a program structure is used as an “alternative display” of spending, or is actually used as the structure for appropriating funds and controlling them during budget implementation, has a significant impact on how programs are understood and whether they are genuinely used for expenditure prioritization. The degree to which the program budget is employed in the oversight process is also related to the degree to which it is used as a tool

of control and of reporting. Thus, whether governments report back on their expenditure and their performance against targets at program level is an important question. For example, Kenya transitioned to program budgeting in 2013, but five years later, budget implementation reports from the National Treasury still do not report back on budget implementation at the program level.¹³ It is hard to think of programs as a unit of accountability under such circumstances.

In our assessment of 30 country budgets, we found that only about half do report back in a publicly available Year-End Report on expenditure at the program level. In some of the cases that do not report in this way, this data may be available in a fragmented or partial way across many reports, but is not consolidated to facilitate program review. We found that even fewer (less than a third) report back consistently on program non-financial indicators.

Among our focus countries, Mexico reports back at program level on both financial and nonfinancial indicators. The Philippines has just introduced its program budget in 2018, so it is not yet clear how it will be reporting back, but available in-year reports on the DBM website do not report on financial or nonfinancial execution at program level (they contain financial data at department and agency level only).¹⁴ In past years, prior to the introduction of programs, the Philippines Year-End Report did include information on non-financial performance against output targets, but only limited discussion of expenditure against budget below the aggregate totals for the Department of Health.

In Brazil, the health ministry does release an annual management report on budget implementation, but it is not sufficiently disaggregated to provide spending at the budgetary action level. Individual directorates within the ministry submit their own annual management reports (*Relatórios de Gestão*) to the supreme audit institution (*Tribunal de Contas da União*, or TCU). These reports contain detailed information for each budgetary action (sub-program level), covering both financial and non-financial performance for all indicators and a short explanatory narrative. However, as the reports submitted to the TCU are fragmented by directorate and can be difficult to locate, it is not easy to make an assessment of overall program performance against the original budget.

In Indonesia, the government does not report back against program-level spending, but reports on financial performance at the directorate level. These overlap with programs, as we have seen, but the main reports filed with the auditor do not include reporting on performance indicators associated with programs.

¹³ See <http://www.treasury.go.ke/component/jdownloads/send/196-quarterly-economic-budgetary-review/838-quarterly-economic-and-budgetary-review-3rd-quarter-2017-2018-ending-31-3-2018.html>. Kenya's Controller of Budget does report back on program-level expenditures.

¹⁴ See <https://www.dbm.gov.ph/index.php/programs-projects/status-of-disbursement#2018>

Beyond simply reporting back on program expenditure, true accountability at program level would entail legally appropriating funds by program, and then controlling expenditure during the year by program. By controlling expenditure, we mean that changes to the budget during implementation – those involving shifting funds from one program to another – are restricted, usually by virtue of the need to seek approval from the finance ministry and/or parliament. Without such restrictions, programs may not end up serving their ultimate purpose, since funds can easily be moved from one program to another to support objectives other than those in the original budget. Alternatively, if control happens below the program level, managerial flexibility to meet program objectives by altering sub-program or activity-level expenditure is hampered.

It is not possible to assess the degree to which programs are used for appropriation and control exclusively from looking at budget documents; rather, such a determination requires a deeper assessment of the country's budget laws. The WHO Armenia and Burkina Faso case studies do provide information about these issues. In Armenia, the program structure is not used for appropriation, which continues at the activity level. In Burkina Faso, appropriation is done at the program level, and that is also an important level of control. However, control is also partly managed by economic classification, such that there are limitations placed on wages and capital spending (Barroy, André, & Nitiema, Forthcoming) (Dale, Kyurumyan, & Kharazyan, Forthcoming). In the four country cases that we were able to assess for this study, the program structure is partly but not wholly used for appropriation and control.

In Mexico, the budget law contains various classifications, including the program classification. Most program allocations may be modified during the year by the Secretary of Health without approval by the Secretary of Finance, and the annual financial statement (*Cuenta Pública*) does show substantial changes at program level in 2017.¹⁵ However, in-year modifications are subject to limitations based on other forms of classification. For example, budgets for programs involving subsidies, state transfers or capital investment cannot be altered unilaterally by the Secretary of Health (*Congreso de la Unión* (Mexico), 2014, 2016). While programs are used to allocate and control spending, the legal framework leaves ministries with considerable flexibility to change program allocations during the year.

In Brazil, appropriation happens at the budgetary action level, and shifting funds between these “actions” requires approval from the Planning Ministry. This means that budget control happens at the sub-program level, which, as we have seen, can be fairly detailed in many cases. As in Mexico, this would imply limits in the changes that can be made to, among other items, transfers to subnational units. Brazil's public finance laws appear more restrictive than Mexico's by controlling expenditure at a significantly more disaggregated level.

¹⁵ See <http://cuentapublica.hacienda.gob.mx/work/models/CP/2017/tomo/II/Print.I50.03.GFEAEPECFP.pdf>

In Indonesia, since programs are essentially the same as directorates, control happens at the directorate level. Shifting funds between directorates must be approved by the finance ministry, but shifting funds within programs (and therefore within departments) at the activity level is overseen by the health ministry without external control.

In the Philippines, while programs are used to structure the budget presentation, control currently happens at the activity level (below the sub-program) and changes at that level require approval from the Department of Budget and Management. This is arguably the most restrictive of our cases in terms of managerial flexibility.

Accountability and control are also enhanced by a program structure that assigns clear responsibilities for implementation to specific organizational units. As we have seen, in practice this often means that programs “align” to some degree with organizational structure. Where they do not, there is some need for accountability mechanisms. This can happen through the assignment of specific indicators in the budget to specific agencies or through the assignment of specific agencies to sub-programs, as is being attempted in Estonia (Raudla, 2016). In Brazil, some budgetary actions and associated products are assigned to specific agencies, such as the Oswaldo Cruz Foundation, but most fall under the National Health Fund, which does not actually implement these actions. In the Philippines, it may be that directorates within the DOH have responsibility for sub-programs, but it is not clear how sub-programs contribute to the achievement of program goals. Moreover, as we saw above, there are some large initiatives within the program structure (e.g., Health Facilities Enhancement Program within the Health Systems Strengthening Program) that do not seem to have any role in contributing to program indicators.

In decentralized health systems, the challenge of accountability and control is particularly acute for programs that mainly transfer funds to other levels of government. There must be mechanisms by which those responsible for such programs can ensure that subnational units work toward shared performance targets. Such mechanisms could include simple periodic review meetings at which subnational units are cajoled to perform, or more rigorous performance-based transfer systems. The lack of information about such mechanisms is a transparency gap in the countries we reviewed.

The Philippines “Form A” submissions mentioned above do speak to the issue of how subnational actors may be monitored, though they say little about the ex-ante mechanisms of influence that will be used to encourage performance. In any case, these forms are not generally published. While Brazil has commissions that bring together officials from multiple levels of government to discuss management and performance, they do not appear to be very successful at ensuring coherence.

In Mexico, in some cases there are regular formal meetings between national and state officials (e.g., to implement the vaccine program), as well as among national actors contributing to programs jointly (e.g., CCINSHAE), but the way in which officials interact around programs is not always well-defined. For example, while the first page of the

annual performance indicator matrix provides a list of all the organizations responsible for delivering each health budget program, interviews suggest that only one lead “responsible unit” is viewed as having formal responsibility for delivering on each program, while other agencies do not recognize a specific role for themselves in contributing to performance.

9. WHAT CAN WE LEARN FROM LITERATURE AND COUNTRY EXPERIENCES?

We conclude with a set of cross-cutting observations based on our review of the literature and the experiences of low- and middle-income countries, in particular, Mexico, the Philippines, Indonesia and Brazil. We hope that these findings will be helpful for countries undertaking program budgeting reforms.

- A. **Words matter, and most countries, and particularly lead agencies such as finance or planning ministries, need to do more to clarify and regulate the terminology that the government as a whole uses on the subject of programs, including differentiating the word “program” from other uses of this word in traditional health initiatives.** This is a global problem, one that can be seen in our four focus country cases, as well as in other case studies (such as the WHO case study of Armenia). It is common to find policymakers talking past each other about concerns related to program structure because they do not fully share an understanding of the terms they are using. Lack of understanding can also lead to budget fragmentation, when multiple programs, understood as initiatives, are created that should in fact be combined in the budget because they contribute to common objectives. Competing definitions of terms like “program” and “action” can confuse the public and oversight actors as well, making it appear that certain priorities are not funded because, while they appear as “programs” in one place (such as planning documents, or ministry websites), they are not funded as “budget programs” in the budget (because they are actually initiatives, rather than budget programs).
- B. **While there is no “right” way to design program budgets in the health sector, decisions can be taken that will enhance the value of programs by encouraging transparency and the use of programs for expenditure prioritization.** One area for consideration is whether all types of expenditure should enter the program structure. A decision to include large transfer scheme as budget programs, particularly when their budget is defined outside of the budget process, makes the budget less transparent and reduces the visibility of tradeoffs among smaller programs. The failure to include the full cost of programs or sub-programs in their budget lines has the same effect and makes it difficult to understand what trade-offs are actually at stake. Related to this, funding sources should not generally be treated as programs because this generates confusion; the program budget should

show funds by objective, rather than the institutional source of funding, which is a presentation that belongs to other budget classifications.

- C. **Many countries could improve their program and indicator hierarchy so that it articulates more clearly the way that government funds are intended to lead us through a results chain from inputs toward desired outcomes.** Most ministries of health require a multi-level program structure to capture the main objectives of spending and how they relate to one another, though here, as elsewhere, there is no hard rule. An indicator hierarchy likely also needs multiple levels to articulate how spending leads to outcomes. The first level will be closer to the activity level, while another two levels will help explain the way that these activities lead to outputs and at least intermediate outcomes. It is possible to have useful indicator frameworks with two levels or four levels; the point is not to prescribe a specific number but to think about the minimum needed to explain the results chain without overburdening users. More limited indicator structures can be supplemented by useful narrative explanations of the results chain as well. Not everything needs to be expressed in the form of an indicator and a target. However, many country narratives either do not supplement the indicator framework in explicating the results chain, or do so but in documents that are tens if not hundreds of pages long, limiting their usefulness.
- D. **Program structures generate more information than ever before, but more needs to be done to encourage the use of this data by legislators, citizens and media.** Data is more likely to be used if the previous points are addressed: more coherent language, more consistent treatment of programs with a focus on transparency and expenditure prioritization, and program and indicator structures that better articulate the results chain. But these are not the only barriers to use. Program budgets are a device for increasing budget transparency, but transparency has a supply and a demand side. If budgets are ostensibly transparent but the program structure and performance measures are not seen as useful to oversight actors, then they may not be as transparent as they appear. It is likely that legislators and citizens also need to “own” the budget to a higher degree, which may necessitate bringing them into the discussion of key objectives and how to measure them when these are designed, and certainly as they are revised over time.

REFERENCES

Allen, R. and Tommasi, D. (2001) *Managing Public Expenditure : A Reference Book for Transition Countries*, Oecd. Edited by A. Richard and D. Tommasi.

Asian Development Bank (2017) *Implementing Results-Based Budget Management Frameworks: An Assessment of Progress in Selected Countries*. doi: <http://dx.doi.org/10.22617/TCS179179-2>.

Barroy, H., André, F., & Nitiema, A. (Forthcoming) *The health sector's transition to program budget in Burkina Faso: status of the reform and preliminary lessons for health financing*. Geneva: World Health Organization.

Barroy, H., Dale, E., Sparkes, S., & Kutzin, J. (2018). *Budget matters for health: key formulation and classification issues*. Geneva: World Health Organization. Available at: http://www.who.int/health_financing/documents/making-budgets-work-uhc/en/

CABRI (2010) *Programme-based budgeting Experiences and lessons from Mauritius*, CABRI Joint Country Case Study, (June). Available at: www.cabri-sbo.org%5Cnwww.compressdsl.com.

CABRI (2013a) *Performance and programme-based budgeting in Africa: a status report*.

CABRI (2013b) *Programme-based budgeting: Experiences and lessons from Namibia*. Available at: <https://www.cabri-sbo.org/en/publications/programme-based-budgeting-experiences-and-lessons-from-namibia> (Accessed: 20 June 2018).

CABRI (2018) *Prendre du recul : l'état de la réforme budget-programme en Afrique, Atelier de CABRI – S'appropriier et diffuser la réforme budget-programme 10 – 11 avril 2018 Abidjan, Côte d'Ivoire*, in. Abidjan. Available at: <https://www.cabri-sbo.org/uploads/files/Documents/Séance-1.pdf> (Accessed: 24 June 2018).

Cámara de Diputados del H. Congreso de la Unión (2018) 'Ley General de Salud', p. 300. doi: 10.1016/j.preghy.2012.01.001.

Comisión Coordinadora de Institutos Nacionales de Salud y Hospitales de Alta Especialidad (2016) *Catálogo de Indicadores de Atención Médica de Alta Especialidad*. Mexico City.

CONEVAL (2017) 'Consideraciones para el Proceso Presupuestario 2018'. Available at: https://www.coneval.org.mx/Evaluacion/IEPSM/Documents/Consideraciones_para_el_proceso_presupuestario_2018.pdf (Accessed: 31 May 2018).

Congreso de la Unión (Mexico) (2014) 'Ley Federal de Presupuesto y Responsabilidad Hacendaria', pp. 1–77.

Congreso de la Unión (Mexico) (2016) 'REGLAMENTO DE LA LEY FEDERAL DE PRESUPUESTO Y RESPONSABILIDAD HACENDARIA'. Available at: http://www.diputados.gob.mx/LeyesBiblio/regley/Reg_LFPRH_300316.pdf (Accessed: 5 June 2018).

Congress of the Philippines (2011) 'Republic Act No. 10152'. Official Gazette of the Republic of the Philippines. Available at: <http://www.officialgazette.gov.ph/2011/06/21/republic-act-no-10152/> (Accessed: 22 June 2018).

Consejo Nacional de Evaluacion de la Politica de Desarrollo Social (no date) *Elementos Minimios a Considerar En La Elaboracion de Diagnosticos De Programas Nuevos*. Available at: https://www.coneval.org.mx/Informes/Evaluacion/Impacto/Diagnostico_Programas_Nuevos.pdf (Accessed: 2 May 2018).

Dale, E., Kyurumyan, A., & Kharazyan, S. (Forthcoming). *Budget structure reform and transition to program budget in health: lessons from Armenia*. Geneva: World Health Organization.

Department of Budget and Management (Philippines) (2016) *Program Expenditure Classification (PREXC): The next phase of the Performance-informed budget*.

Diamond, J. (2003) *From Program to Performance Budgeting The Challenge for Emerging Market Economies*. 03/169. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=880208 (Accessed: 13 June 2018).

Gobierno de la República Mexicana (2013) *Programa Sectorial de Salud 2013-2018*. Mexico City. Available at: http://www.dged.salud.gob.mx/contenidos/dged/descargas/index/ps_2013_2018.pdf (Accessed: 15 June 2018).

Hawke, L. (2016) 'Australia', in *Toward Next-Generation Performance Budgeting: Lessons from the Experiences of Seven Reforming Countries*. The World Bank, pp. 39–54. doi: 10.1596/978-1-4648-0954-5_ch5.

Hood, C. (2011) *The blame game : spin, bureaucracy, and self-preservation in government*. Princeton University Press.

Instituto Belisario Dominguez, D. G. de F. (2018) *Recursos destinados al Sector Salud en el Presupuesto de Egresos de la Federación 2018*. Available at: <http://bibliodigitalibd.senado.gob.mx/handle/123456789/3177>.

Jacobs, D., Héris, J.-L. and Bouley, D. (2009) *Budget Classification*. Available at: <https://www.imf.org/external/pubs/ft/tnm/2009/tnm0906.pdf> (Accessed: 22 June 2018).

de Jong, M. (2016) 'The Netherlands', in *Toward Next-Generation Performance Budgeting: Lessons from the Experiences of Seven Reforming Countries*. The World Bank, pp. 91–109. doi: 10.1596/978-1-4648-0954-5_ch8.

Kim, D. Y. *et al.* (2006) 'INTRODUCING PROGRAM BUDGETING IN KOREA: WITH A CASE STUDY OF THE MINISTRY OF ENVIRONMENT', in Kim, J. M. (ed.) *From Line-item to Program Budgeting Global Lessons and the Korean Case*. Seoul: Korea Institute of Public Finance. Available at: <http://www1.worldbank.org/publicsector/pe/bookprogrambudget.pdf> (Accessed: 22 June 2018).

Kim, D. Y. *et al.* (2006) 'Paths Toward Successful Introduction of Program Budgeting in Korea', in Kim, J. M. (ed.) *From Line-item to Program Budgeting: Global Lessons and the Korean Case*. Korea Institute of Public Finance.

Kim, J. M. (2006) 'Introduction: The Transition to Program Budgeting', in Kim, J. M. (ed.) *From Line-item to Program Budgeting Global Lessons and the Korean Case*. Korea Institute of Public Finance, pp. 13–22.

Kraan, D.-J. (2008) 'Programme Budgeting in OECD countries', *OECD Journal on Budgeting*. OECD, 7(4), pp. 1–41. doi: 10.1787/budget-v7-art18-en.

Lakin, J. and Magero, V. (2015) *Improving Program-Based Budgeting in Kenya*. Available at: <https://www.internationalbudget.org/wp-content/uploads/Improving-Program-Based-Budgeting-in-Kenya.pdf> (Accessed: 6 June 2018).

Mackay, K. (2011) *The Australian Government's Performance Framework*. 25.

Moindze, M. (2009) *Budget Expenditure Classification and the New Fiscal Governance*.

Moynihan, D. P. (2016) 'United States', in *Toward Next-Generation Performance Budgeting: Lessons from the Experiences of Seven Reforming Countries*. The World Bank, pp. 143–159. doi: 10.1596/978-1-4648-0954-5_ch11.

Moynihan, D. P. and Beazley, I. (2016a) 'Applying the Results', in *Toward Next-Generation Performance Budgeting: Lessons from the Experiences of Seven Reforming Countries*. The World Bank, pp. 27–33. doi: 10.1596/978-1-4648-0954-5_ch3.

Moynihan, D. P. and Beazley, I. (2016b) 'Day-to-Day Difficulties', in *Toward Next-Generation Performance Budgeting: Lessons from the Experiences of Seven Reforming Countries*. The World Bank, pp. 19–25. doi: 10.1596/978-1-4648-0954-5_ch2.

National Audit Office Mauritius (2009) 'Report of the Director of Audit on The Implementation of THE PROGRAMME-BASED BUDGET (PBB)'.

National Economic and Development Authority, R. of the P. (2017) *PDP Results Matrices 2017-2022 - The National Economic and Development Authority*. Available at: <http://www.neda.gov.ph/pdp-results-matrices/2017-2022/> (Accessed: 26 April 2018).

OECD (2016) *2016 OECD Performance Budgeting Survey: Integrating performance and results in budgeting*. Available at: <http://www.oecd.org/gov/budgeting/Performance-Budgeting-Survey-Highlights.pdf> (Accessed: 8 June 2018).

Raudla, R. (2016) 'Estonia', in *Toward Next-Generation Performance Budgeting: Lessons from the Experiences of Seven Reforming Countries*. Washington D.C.: The World Bank, pp. 55–72. doi: 10.1596/978-1-4648-0954-5_ch6.

Republic of Kenya (2017) 'Programme Based Budget of the National Republic of Kenya 2016/2017 for the Year Ending 30th June'. Nairobi.

Roberts, J. (2003) 'Managing Public Expenditure for Development Results', *ODI Working Paper 203*, (February).

Robinson, M. (2007) 'Performance Budgeting Models and Mechanisms', in *Performance Budgeting*. London: Palgrave Macmillan UK, pp. 1–18. doi: 10.1057/9781137001528_1.

Robinson, M. (2013) *Program Classification for Performance- Based Budgeting : How to Structure Budgets to Enable the Use of Evidence*, IEG Evaluation Capacity Development Series. Available at: <http://ieg.worldbankgroup.org>.

Robinson, M. (2018) *Performance-based Budgeting*. Available at: https://www.pempal.org/sites/pempal/files/event/attachments/pb-budgeting-manual_eng.pdf (Accessed: 18 June 2018).

Robinson, M. and van Eden, H. (2007) 'Program Classification', in *Performance Budgeting*. London: Palgrave Macmillan UK, pp. 63–87. doi: 10.1057/9781137001528_5.

Schick, A. (2007) 'Performance Budgeting and Accrual Budgeting: Decision Rules or Analytic Tools?', *OECD Journal on Budgeting*, 7(2), pp. 1608–7143.

Schick, A. (2008) '1 Getting Performance Budgeting to Perform', (May), pp. 1–23.

Schick, A. (2013) 'The metamorphoses of performance budgeting: Presentation prepared for the Annual OECD Meeting of Senior Budget Officials, Paris'.

Schick, A. (2014) 'The metamorphoses of performance budgeting', *OECD Journal on Budgeting*, 13(2), pp. 49–79. doi: 10.1787/budget-13-5jz2jw9szgs8.

Secretaría de Hacienda and y Crédito Público (Mexico) (2015) *Estructura Programática a emplear en el proyecto de Presupuesto de Egresos 2016*. Available at: http://www.hacienda.gob.mx/EGRESOS/PEF/programacion/programacion_16/1_av_PyP_Inv_ene_may_2015.pdf (Accessed: 31 May 2018).

Secretaría de Hacienda y Crédito Público (Mexico) (2016) 'Consulta pública para incorporar participación ciudadana a la definición o adecuación de indicadores del desempeño'.

Shah, A. (2003) 'VOLUME 1: ENSURING ACCOUNTABILITY WHEN THERE IS NO BOTTOM LINE. Overview', in Shah, A. (ed.) *Handbook on Public Sector Performance Reviews*. Washington D.C.: World Bank, pp. 19–34.

Shah, A. and Shen, C. (2007) 'A Primer on Performance Budgeting', in Shah, A. (ed.) *Budgeting and Budgetary Institutions*. Washington D.C.: World Bank Group, pp. 137–178.

Tandberg, E. *et al.* (2009) 'Advanced Public Financial Management Reforms in South East Europe'.

The World Bank (2010) *Implementing the Outcomes-Based Approach in Malaysia*. Washington, D.C. Available at: <https://openknowledge.worldbank.org/handle/10986/12778>.

UNION ECONOMIQUE ET MONETAIRE OUEST AFRICAINE (2009) 'DIRECTIVE N°06/2009/CM/UEMOA PORTANT LOIS DE FINANCES AU SEIN DE L'UEMOA'.

ANNEX A: BUDGET DOCUMENT REVIEW

List of 30 countries assessed:
Afghanistan
Angola
Argentina
Belize
Benin
Brazil
Bulgaria
Burkina Faso
Democratic Republic of Congo
Dominican Republic
Ecuador
Ghana
Guatemala
Indonesia
Jordan
Kenya
Madagascar
Malawi
Mali
Mauritius
Mexico
Mongolia
Morocco
Mozambique
Peru
Philippines
Rwanda
Serbia
South Africa
Uganda

ANNEX B: ACKNOWLEDGMENTS – INTERVIEWEES

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MEXICO

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- Dr. Manuel de la Llata Romero, *Director General de los Hospitales Regionales de Alta Especialidad.*
- Mtro. Ricardo López Loya, *Director General Adjunto de Administración y Finanzas.*
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- Lic. Felipe Guadalupe Morales Lopez, *Director de Integración de Programática Presupuestal. Secretaría de Salud.*

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- C.P. Angel Luis Rivera Hernandez, *Centro Nacional de Equidad de Género y Salud Reproductiva. Secretaría de Salud.*
- Lorena Rivero del Paso, *Directora General Adjunta de Seguimiento e Información del Desempeño Presupuestario. Unidad de Evaluación del Desempeño. SHCP. Mexico.*

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CASE STUDY REPORT BY JASON LAKIN

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- Allan Millar, *Consultant for Health Systems Strengthening, Logistics and Supply Chain. Department of Health.*
- Atty. Alex Padilla, *Former President and CEO. Philippines Health Insurance Corporation.*
- Eireen Palanca, *Director III. Legislative Budget Research and Monitoring Office. The Senate. (Written communication).*
- Frances Rose Elgo-Mamaril, *Chief, Health Planning Division. Health Policy Development and Planning Bureau. Department of Health.*

- Bruce Stacey, *Former Senior Budget Advisor, Philippines Department of Budget and Management. AusAid.*
- Rolando Toledo, *Director, Fiscal Planning and Reforms. Department of Budget and Management.*
- Group interview with members of Fiscal Planning and Reforms: Ms. Nanette Cabral (*Division Chief in charge of Department of Health*), Ms. Clarissa Bautista, Ms. Gillian C. Servida, Mr. Robin T. Gumasing and Mr. Imman Van B. Valerio.
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BRAZIL

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- Aritan Borges Avila Maia, *Budget Consultant, Federal Senate*
- Carlos Ocké-Reis, *Researcher, Institute for Applied Economic Research (Ipea), and President, Brazilian Association of Health Economics (ABrES)*
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- Luiz Fernando Arantes Paulo and Ricardo Dislich, *Secretariat for Planning and Economic Issues, Ministry of Planning, Development and Management*

INDONESIA

CASE STUDY REPORT BY PERKUMPULAN INSIATIF

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- Mr. Doni, *former staff at the Directorate of Planning and Program of the Ministry of Health*
- Mr. Kusnadi, *staff of planning and reporting, the Municipal Health Agency of Bogor Municipality*
- Mr. Trisna, *staff of procurement, the Regency Health Agency of Bogor Regency*

- Ms. Dewi Amila Sholihin, *Chief in action of Sub-directorate of community health, Directorate of Nutrition and Community Health*
- Mr. Sridayu Aritedja, *Planning staff at the Sub-directorate of community health, Directorate of Nutrition and Community Health*
- Mr. Ichsan Firdaus, *Vice Chief of 9th Commission, of the National Parliament*