

Program-Based Budgeting in Health in Low- and Middle-Income Countries: A New Dataset

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BACKGROUND

A large number of low- and middle-income countries have either recently introduced, are introducing, or are currently reforming their approach to program-based budgeting. One estimate puts the share of reforming countries in Africa alone at 80 percent in 2018.¹ A persistent challenge for both reformers and budget users in many countries undertaking such transitions is to learn about practices in other countries, good or bad, that might inform local approaches. Various guides to program budgeting and related reforms exist, but they often lack practical, detailed examples.

In order to fill this gap and as part of research undertaken at IBP for a larger World Health Organization project, we collected budget documents from 30 low- and middle-income countries with some form of program budgeting and assessed them.² Our full assessment is [available here](#). This limited technical note describes the data we collected and offers a summary of what the data tells us. We hope that those interested in using the data will find this note useful.

THE SAMPLE

The dataset contains thirty countries from around the world. It has extensive coverage of Latin America and Africa, and more limited coverage of Asia and Eastern and Central Europe. Because the dataset draws on information we were able to glean from published documents and websites, there is a bias in our sample toward regions where language barriers were lower (e.g., countries where budgets were available in English, French, Spanish and Portuguese). The countries included in the dataset are highlighted in Figure 1.

¹ 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).

² All publications and case studies produced as part of this research initiative are available at <https://www.internationalbudget.org/analysis-insights/program-budgets/>

THE ASSESSMENT

To assess the health budget in each country, we consulted 2018 Budget Proposals (as tabled by executives) and supporting documentation. Where possible, we also reviewed Enacted Budgets and In-Year and Year-End Implementation Reports. In some cases, we produced more detailed case studies or consulted with local partners. Information gleaned from these additional sources is reflected in the data, but we did not consistently seek out additional interviews to clarify issues arising from budget documents across the sample of 30 countries. In some cases, we also consulted documents from earlier budget years to understand how budget presentation had changed over time.

The top row of the dataset contains all of the questions we asked and explains how we coded the responses. The questions are also included in Annex 1 of this paper. In most cases, yes/no questions are coded as 1/0. A small number of cases are coded 2 because we were not able to answer a question with certainty. Users should be aware that some columns are counts, such as “number of programs”, and these columns are obviously not coded 1/0. In addition, there are extensive notes in the data to help clarify the coding or offer additional information about how we came to a coding decision. These additional columns are labeled as “Notes” columns. Hyperlinks are included in various columns to facilitate direct review of budget documents by users of the dataset. An additional tab in the workbook containing the dataset lists the names of all health budget programs in each country for easy comparison.

Collecting and assessing budget documents can be challenging. Our assessment focused on countries with publicly available budget documents, but in many cases it was not entirely clear how various documents available online actually linked to one another.

For example, in Indonesia, the Ministry of Health’s work plan documents contain strategies and performance indicators. Although many of the strategies sound similar to the names of programs (and directorates) in the health budget, there is no direct link between the output targets in the annual budget and those in the planning documents. In one example, the budget notes 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 “21.2 percent.” It is not obvious how to connect these two indicators and targets. These kinds of gaps, which are in no way confined to Indonesia, put undue burdens on budget users and may contribute to assessment errors.

OBSERVATIONS FROM THE DATA

NUMBER OF PROGRAMS

Based on our data, the average number of programs under the ministry of health is eight, the minimum is three, and the maximum is 31 programs. The median number of programs is six.

SUB-PROGRAMS

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 is 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.

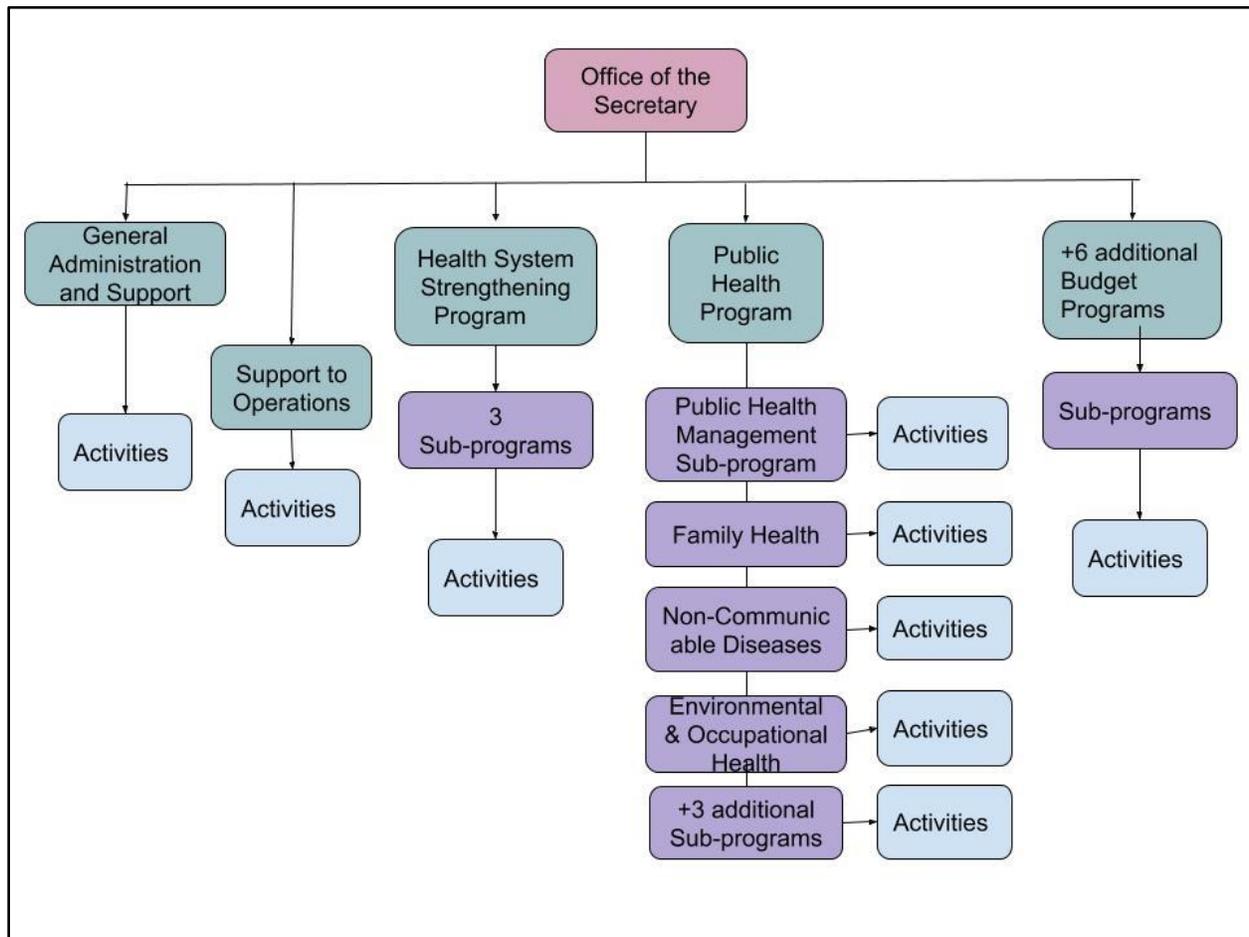
We tried to assess sub-programs according to whether the class of object below the program level (regardless of name) met at least two of the following criteria:

1. Expenditure estimates for the class are presented in the annual budget (a sub-program is a budget category);
2. The object is further broken down or supported by a set of activities (a sub-program is not the bottom of the hierarchy, but must have additional activities below it);
3. There are clearly defined objectives to support the goal of the budget program at the level of this class (a sub-program should have the same traits as a program, and all programs have objectives); and
4. The results framework (with a set of indicator-targets) has indicators at the level of this class (a sub-program, like a program, is organized around objectives that are measurable);

Even these relatively straightforward criteria may be controversial, however. For example, one can quibble about what actually constitutes an “objective” or an “activity.” Once we move away from simply accepting that such things are whatever a government says they are, we are in contested territory. Nevertheless, our assessment is that approximately 18 of the 30 countries in our sample have sub-programs.

The number of sub-programs varies from country to country. Figure 3 presents the program and sub-program structure under the Department of Health in the Philippines, giving a sense of the sub-programs without showing all of them in detail.

FIGURE 2. PROGRAM AND SUB-PROGRAM STRUCTURE UNDER THE DEPARTMENT OF HEALTH IN THE PHILIPPINES



In the Philippines, the eight budget programs for operations are supported by 16 sub-programs (the administration programs lack sub-programs). The sub-programs are further broken into activities and projects. The annual budget shows allocations at the level of activities, which add up to the appropriations for sub-programs and programs.

TYPE OF PROGRAMS

Guidance about program budgeting often suggests that countries should create administration or support services programs to cover internal-facing services that support multiple programs and whose costs cannot be easily allocated to other programs. Most countries we reviewed (26 out of 30) have at least one administration or support program. Interestingly, quite a number of countries have more than one such program in the health

sector. Though we did not capture the exact number of administrative programs in each country in the database, it is common for countries to have two or more such programs to accommodate different types of overheads, such as pensions, salaries, and procurement.

Beyond administration, how do countries select the types of budget programs they will introduce? Most countries do not seem to follow any single approach and therefore have programs of various types. Nevertheless, we can try to classify the partial approaches that we see in the data.

One approach is to create programs that follow the internal structure of the ministry so that programs correspond to departments or directorates. This was not as common as we expected: 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 these cases, we do not know if the programs were designed to mimic the internal structure, or the structure has evolved to better reflect the programs, but there is a partial alignment. For example, in Peru, there is a dedicated directorate for nine of the ten health budget programs within the ministry. Eight of these fall under the purview of a single vice ministry within the ministry.

Similarly, 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.

Where programs overlap with the internal structure of the ministry, as in Indonesia, it is clear that a specific directorate or bureau is responsible for each program. But this is not always the case, and where program management is not closely aligned to the internal structure, we might expect the budget to assign responsibility to a responsible unit or delivery unit.

It is not always possible from reviewing budget documents to have a clear picture of who is in charge, but we assessed whether governments created something like a “delivery” or “responsible” unit. We found that about half the countries in our sample mention a responsible unit in some form, but there is considerable diversity in the way this is presented. In Argentina, the annual budget mentions internal directorates within the ministry who are assigned responsibility for specific programs and activities along with their budgets, creating clearer accountability lines. In Kenya, delivery units are used to link the responsibility for specific non-financial targets in the program budget back to the line item budget, where additional financial detail is provided.

Another decision governments must make is whether budget programs should be confined to a single ministry or cut across agencies. Program budgeting does allow for programs that cut across ministries in the interests of bringing together activities oriented toward cross-cutting objectives. However, the introduction of such programs creates accountability challenges. As a result, many countries eschew such an approach.

Our review of 30 countries finds 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 clearly to create program structures within ministerial structures.

Brazil stands out as an important exception. Brazil's health budget has several small programs that are jointly managed by other ministries, such as the food security and basic sanitation programs, which involve the ministries for social development and cities, respectively, in delivering on targets. In Peru and Malawi, there is one budget program in each case that is shared with other ministries. In Rwanda and Serbia, we see that budget programs are cross-cutting between the various health agencies that fall within the health sector. However, even this is not common. Many countries with public insurance schemes have created insurance agencies as autonomous state corporations. In both the Philippines and Mexico, 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.

Programs may also be organized around levels of care, so that there are, for example, primary, secondary, and tertiary budget programs. This was a minority approach in our dataset: in only 10 cases did programs seem to partly overlap with levels of care. Malawi is such a case: it has three programs related to health care levels—primary, secondary, tertiary, and these have sub-programs organized by preventive, curative, and health services provision. In most countries, however, it is common to see the different levels of service combined into one budget program.

Another logic that some countries follow is to organize programs around high priority interventions, such as prevention or treatment of specific diseases. This was fairly rare in our sample; only seven out of 30 countries 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 countries have disease-specific indicators. The most frequently monitored diseases are HIV/AIDS, tuberculosis, malaria, malnutrition, and cancer. Though not a specific disease, vaccination is also often monitored directly. Only a few countries lack both disease programs/sub-programs and disease indicators.

While program budgeting implies that different types of budget inputs should come together within programs that are aimed at certain objectives, many countries nevertheless seem to create programs that are organized around

inputs to these objectives - such as personnel, goods or services, and infrastructure - rather than the objectives themselves. 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 and allocate costs across programs meaningfully.

INDICATORS AND TARGETS

DESIGN AND USE OF PERFORMANCE INDICATORS AND TARGETS

Most program budgets incorporate performance indicators and targets that track progress toward program objectives over time. While these indicators are important to track performance, they also serve a transparency purpose: they help to clarify the “results chain,” meaning the way in which funding will support activities, which will in turn support outputs and policy outcomes. This implies that there is generally a need for an indicator hierarchy, as opposed to a single level of indicators at the program level.

Three out of four countries in our sample have program-level indicators. Fewer countries have an indicator hierarchy, however. Out of the 30 countries in the database, about only 17 (57%) have two levels of indicator or more in their hierarchy.

One way to create an indicator hierarchy is to have indicators at both program and sub-program levels. This is not as common as one might expect: only six countries have indicator-targets at both program and sub-program levels. One such example is Bulgaria, where the objectives, indicators, and targets exist at the program and sub-program level. Sub-program indicators like the number of health education activities and the total participants (by age group) in awareness programs on tobacco, alcohol abuse, and nutrition feed into the program level indicator of “gradually reducing the incidence and death of the most commonly occurring non-communicable diseases.” Indicators under sub-programs are elaborate, with details of what is being measured, and sources of data or method of calculation. Some sub-programs have more than 30 indicators (which could be considered excessive).

Other countries in our sample with an indicator hierarchy have both output and outcome indicators at the program level, or follow another multi-level indicator scheme. Mexico has four levels of indicator, all at the program level, but following a “logical framework” approach linking activities up to outcomes.

The nature of indicators and targets varies considerably across countries. Some countries primarily use output or “product” targets that measure quantities of items delivered, produced, or funded without further description of the purpose of these products or how they link to outcomes. Such is the case in Indonesia and Brazil. In other

countries, indicator frameworks are more nuanced and descriptive, include greater detail about what exactly is being measured, and clarify the sources of data that are to be used for measurement.

One of the biggest challenges some countries face is that the number and sophistication of their indicator frameworks often exceeds the narrative in the annual budget that explains these frameworks. For example, Mexico relies heavily on its indicator matrix, but in spite of using a logical framework approach, it is not always self-evident how the four levels of indicator relate to one another. Some countries provide supporting documentation that sits 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. This presentation is particularly transparent because details are provided about the data source for performance indicators and the method of calculation.

Another indicator of the level of sophistication of a country's indicator framework is whether the indicators presented have baseline information. A baseline is critical to assess the meaningfulness of targets, and how we should view progress toward them over time. In our data, only about half of the countries with program indicators presented consistent baselines in the main budget documentation.

PROGRAM REPORTING AND CONTROL

For programs to be meaningful, they must be used as a mechanism of appropriating funds, controlling them, and reporting back on their usage.

Only about half of the 30 budgets we assessed report back in a publicly available Year-End Report on expenditure at the program level. In some countries that lack this reporting, expenditure data at the program level might be available in a fragmented way across many different reports, but it is not consolidated to facilitate program review. Even fewer governments (less than one third) report back consistently on program level non-financial indicators.

ANNEX 1: QUESTIONS ASKED IN DATASET

- Does the Budget have Programs? (1=YES)
- Number of Budget Programs (COUNT)
- Program Names
- Program Structure and Framework
- Number of Indicator Levels (COUNT)
- Is the Budget Allocated at Program Level? (1=YES)
- Is there any Level of Classification below the Budget Program (Economic, Capital/ Current, Administrative, Line)? (1=YES)
- Do Programs have Objectives? (1=YES)
- Do Programs have Indicator, Targets? (1=YES)
- Do Program Indicators Have Baselines? (1=YES)
- Are there Sub-programs? (1=YES)
- Number of Sub-programs (COUNT)
- Do Sub-programs Have Budgets? (1=YES)
- Is There Any Level of Classification Below the Sub-program? (1=Y)
- Do Sub-programs have Indicators and Targets? (1=YES)
- Do Sub-Program Indicators Have Baselines? (1=YES)
- What is the Fiscal Year of Program Based Budget Reviewed? (YEAR)
- Does the Published Enacted Budget Document Have Allocations at Program Level? (1=YES)
- Do the Published Year-End Reports Report on Non-financial Information at the Program Level? (1=YES)
- Do the Published Year-End Reports Report on Financials at the Program Level? (1=YES)
- Do Programs Cut Across Ministries (Not Confined within Ministries)? (1=YES)
- Is There an Administrative Program? (1=YES)
- Are there disease programs? (1=YES)
- Are there disease sub-programs? (1=YES)
- Are there disease indicators? (1=YES)
- Are diseases mentioned for program or sub-program indicators?
- Which Diseases are targeted at the Program or Indicator Level?
- Are Programs Partly or Wholly Organized Around Internal Units of the Ministry? (1=YES)
- Are Programs Partly or Wholly Organized Around Levels of Health Care? (1=YES)
- Is there Mention of a Unit Responsible for Managing Each Program? (1=YES)