

# COSTING TOOLKIT

DISTRICT HEALTH SYSTEMS



Partners  
In Health

## Author

Jean Claude Mugunga, Lisa R. Hirschhorn

## Editors

John Ruhumuriza, James Rutayisire, Grace Umugiraneza, Ryan McBain,  
Jennifer Goldsmith

We are grateful for the contributions of many to IMB's costing work in Rwanda and to this toolkit including: Chunling Lu, Sandy Tsai, Placide Habinshuti, Adarsh Shah, Micaela Browning, Catherine Kirk, Hari Iyer, Felix R. Cyamatatare, Mercy Murete, Leonce Nshuti, Annie Michaelis, Neil Gupta, Joia Mukherjee, Peter Drobac and the PIH/ IMB Research Department. The costing of the district health system in Southern Kayonza and Kirehe Districts of Rwanda was developed with tremendous financial support from the Doris Duke Charitable Foundation and the support of IMB partners in the Rwandan Ministry of Health and staff at the health facilities who are integral to success of this costing work.

## Recommended citation

Jean Claude Mugunga, Lisa R. Hirschhorn, District Health Systems Costing Toolkit. Partners In Health 2017.

**Partners In Health is a 501(c)(3) nonprofit corporation and a Massachusetts public charity. © Partners In Health, 2017.**

**This work is licensed under a Creative Commons Attribution.**

## Partners In Health

800 Boylston Street, Suite 300, Boston, MA 02199

Phone: +1 (857) 880-5100

Fax: +1 (857) 880-5114

**DESIGN** one2tree • Rena Sokolow **GRAPHICS** cbdesign • Cindy Babaian

**COVER** Therese Icyimanimpaye with daughter Marie Arihafi and Dr. Cyprien Shyirambere in Butaro District Hospital, Rwanda. *Photo by Cecille Joan Avila / Partners In Health*

## PREFACE

The process of engaging in detailed cost analysis related to large scale health system improvement requires meaningful evaluation of different health strengthening efforts. Effective costing approaches are critical to inform scale-up plans and to improve care globally. This guide serves as a practical toolkit to facilitate that process.

## INTRODUCTION

# JUSTIFICATION AND RATIONALE

The concept of Health Systems Strengthening (HSS) reflects a global commitment to improve population health outcomes and is critical to sustaining recent advances in global health.<sup>1</sup> HSS provides essential information on resources needed to scale interventions to areas facing great need. Yet prioritizing scale-up of health services requires a full understanding of the costs associated with different health strengthening approaches. This critical information allows managers and policy makers to plan and prioritize system improvements. Despite this importance, examples of costing work integrated into HSS are uncommon. As a result, many policymakers and stakeholders are not fully aware of the flow of resources within the healthcare system and where resource gaps may occur.<sup>2</sup> Costing activity in combination with assessments of health system outcomes can also determine return on investments and identify areas which may benefit from a reallocation of resources. More specifically, an understanding of costs can help managers and policy makers:

- Allocate** human and financial resources more effectively and equitably
- Prioritize** funding decisions under conditions of financial constraint
- Improve** the financial health and funding alignment of the health system
- Increase** and monitor data-driven resource allocation
- Evaluate** the feasibility, success, and scalability of a program
- Link** costs to outcomes to show program viability
- Inform** other decisions makers interested in replicating interventions on the scope and scale of resources needed

# BACKGROUND AND CONTEXT

Developing an analysis of healthcare costs in low-income settings can often be difficult because of weak accounting practices, a lack of standardized financial data tracking and reporting systems, and the absence of strong health information systems (HIS) that routinely capture relevant information. This is particularly true in rural resource-limited settings.<sup>3</sup> Doris Duke Charitable Foundation (DDCF) funded an intervention, The Population Health Implementation and Training (PHIT) Partnership in Rwanda, to strengthen the health system. A component of this work was to create accessible tools and methodologies to support effective program cost assessment.

Partners In Health (PIH) and the Rwandan Ministry of Health (MoH) developed and successfully implemented a comprehensive costing methodology in the rural districts of Southern Kayonza and Kirehe to gain data on resources utilized to strengthen health facilities. The approach included an analysis of funding inflows by source, including the MoH, non-governmental organizations, in-kind donations, private insurances, and private household out-of-pocket spending. Data were also collected on expenditures across the programs. Assessing these inputs determined the district-wide investment in the HSS initiatives. This approach was designed to study resources in a public health system and can be adapted for private sector use. This toolkit is intended to serve as a guide for governments, health system administrators, and other stakeholders. With these tools, leaders can determine the actual investments and cost of HSS-focused interventions and improve planning, resource allocation, and decision making.

## TOOLKIT OVERVIEW

This toolkit is intended primarily for managers of health organizations and governments in low- and middle-income countries who are responsible for discrete units such as districts. The goal of the document is to provide an approach for local adaptation. The toolkit can provide critical resource utilization data and help strengthen accounting and financial reporting practices to meet organization needs for efficient data utilization analysis, further strengthening health systems.

The toolkit can also be useful to funders of HSS initiatives seeking to understand grantees' true cost structure or to help grantees in low- and middle-income countries gain economic clarity and efficiency in resource allocation. The level of detail used in data collection tools should reflect the goals of the data collection and targeted use.

The toolkit assumes users possess a basic understanding of financial concepts and strong knowledge of the district or catchment area to be examined.

## IMPLEMENTATION

Measuring the use and allocation of resources across large and diverse catchment areas within a country's health system can seem daunting for the first-time toolkit user; however, this toolkit outlines five broad steps for implementing a health system costing analysis that will help guide the user through the planning, implementation, and analysis stages of the study. Throughout this toolkit, a district in Rwanda is used as a reference site based on experience in the DDCF pilot.

## CONTENTS

**3** Preface & Introduction

**4** Purpose of the Costing Toolkit

Planning and stakeholder  
engagement

1

Data needs assessment

2

Staff training and  
sensitization

3

Data collection and  
management

4

Analyzing and  
disseminating data

5

**23** Acknowledgments  
References

**24** Annex

# 1

## PLANNING AND STAKEHOLDER ENGAGEMENT

Identifying the aims of the costing project, including how the data will be used and how often it will be collected, helps to define resource requirements and adaptations for implementation.

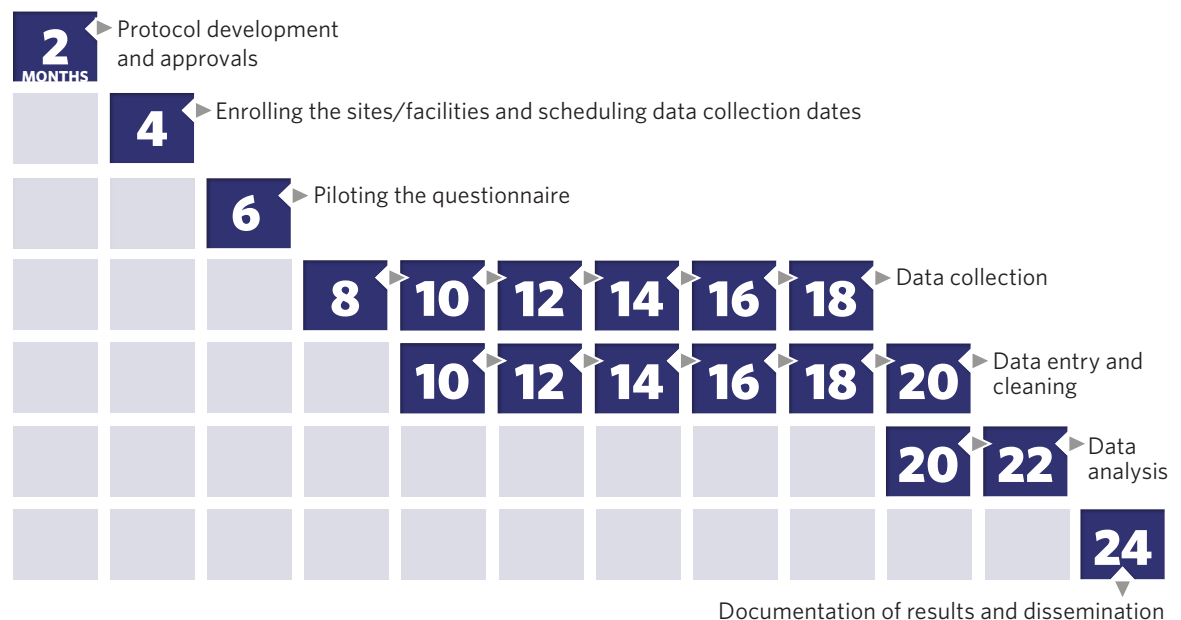
**Stakeholder Engagement** As a first step in the process, it is essential to determine both the goals of the costing assessment and the audience for the results. These should be clearly documented and shared for input and serve as the overall guide for the work. Identifying stakeholders and their role in data collection and use will establish ownership and a commitment to draw on the results. Stakeholders may include national, district, and local levels of the health systems, civil society, and others. The audience of the results, in addition to stakeholders, may include other external audiences. For example, other Non-government organizations (NGOs) or MoH in developing countries with similar health system structures might benefit from reading findings when the costing project is completed and published on websites, or as an article in a scientific journal.

**Developing a timeline** Once goals have been established, the team will move onto developing a timeline with specific time-linked goals and activities to be completed throughout the duration of costing project. It is also important to specify the target completion date for each activity. If consulted and updated regularly, this timeline and plan will help the data team stay on track and in coordination with different stakeholders.

### TWO YEAR COSTING PROJECT TIMELINE

Once goals are established, the team will develop specific time-linked goals to be completed throughout the duration of the project

#### MONTHS FROM START OF THE PROGRAM





**Attaining approvals for data collection** In determining the need to conduct a costing exercise it is essential to define the scope of the analysis (health centers, district, etc.). The next step is to have the local and/or national government officials, other authorities, and partners approve, buy into, and support the costing initiative. Depending on local context, stakeholders may need to get approvals at multiple levels:

**National Level** Ministry of Health teams, national ethics approvals, medical procurement agency, main public and private insurers.

**Local Level** Head of the health office (usually a government official), head of the main hospital(s), head of the pharmacies or warehouse(s), health centers and smaller clinics, local health insurers, NGOs, faith-based organizations (FBOs), and civil society.

**Identifying health system components and goals** Conducting a system cost analysis will help to determine the true and full annual costs of managing and providing care at the targeted health facilities. Costs include management, expenditures, real cost of in-kind donations, and up-front costs. Tracing funding sources, including government, partners, and private out-of-pocket, is critical to the exercise as well. Potential costing goals include:

**Understanding** the resources used for each major cost category including Human Resources, Information Systems, Pharmaceuticals, Infrastructure, and Leadership & Management

**Analyzing and reporting** the true costs of specific programs within the catchment area-both initially and at desired intervals

**Estimating** the cost per capita of health systems in the catchment area being studied

**Fundraising** for and scale-up of programs

The scope of costing is determined by project goals, the structure of the health system, and the level of facility to study. It is important to determine in advance the level of care under review and to plan accordingly. For example, the study may focus exclusively on health centers, all healthcare facilities including district hospital and health centers, or an entire district health system including hospital, health centers, community health workers, district level management, and potentially other key ancillary divisions such as district pharmacies.

**Conduct background research on costing components** In addition to the MoH, there are typically multiple parties responsible for funding and administering a health system within a given catchment area. Understanding the roles and interactions among these entities is an integral part of health system costing. In the costing analysis, a health system may be defined as exclusively a public-sector facility or as the entire set of health programs and activities in the intervention areas, including those run by NGOs, FBOs, private providers, and traditional healers. A careful discussion of feasibility of measuring the different actors is important to understand what can and cannot be

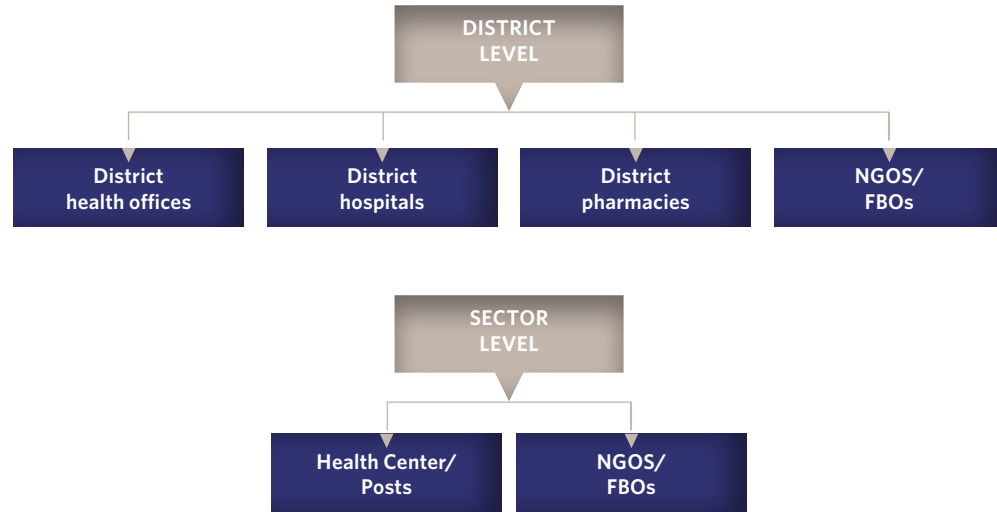


measured given the available resources.

In a comprehensive health system cost analysis, all resources that flow in (incoming funds) and out (expenditures) of each of the above entities should be analyzed. It is valuable to review the entities within the system, and make decisions on which to include or not include in the analysis.

## FORMAL COMPONENTS OF DISTRICT HEALTH SYSTEM IN RWANDA

In districts with limited private sector healthcare provision



Identifying which health facilities and other health entities in the catchment are going to be included in the cost analysis will constitute primary costing units, on which to obtain financial and in-kind cost data. A useful step is to understand the services and resources for each costing unit included in the costing project. This will help to adapt the data collection questionnaires. Once costing units are identified, the following question should be considered:

- What** are the services offered?
- Which** resources are needed to offer those services?
- Where** do those resources come from?



**In the example** of a district in Rwanda, entities participating in the provision of healthcare included: district health offices, district pharmacies, district hospitals, and lower-level

facilities such as health centers, clinics, health posts, and private sector providers. Community Health Worker (CHW) costs were not included since in many contexts CHWs provide

minimal medical care in the community. In addition, the level of organization and scope of work of CHWs continues to evolve in the health system. However, in healthcare

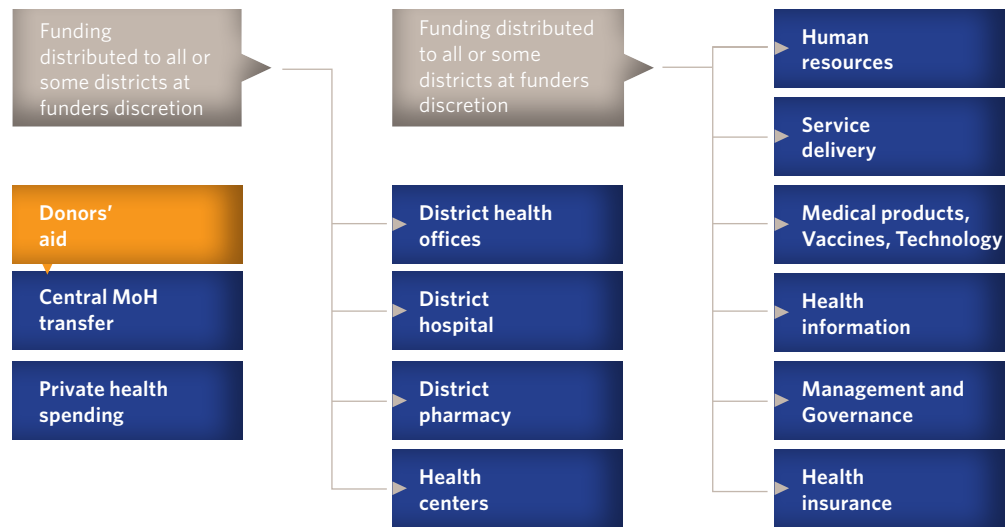
systems in which the CHWs do play a consistent role in the administration of basic medical interventions, funding and expenditures related to the program should be included.





## FINANCING MECHANISMS IN DISTRICT HEALTH SYSTEM IN RWANDA

The three major funding sources and the distribution of funds



Understanding the financing structure of the district health supports measuring the cost of a health system. As shown in the figure above, depending on setting, there typically are three major funding sources for district public health systems: central government transfers including donor contributions, direct donor contribution to hospitals, pharmacies or health centers, and private expenditures, primarily from household out-of-pocket contributions. Each of these funding sources provides resources that flow through various settings of care and on to various categories of cost.

**Planning for dissemination and sharing** Determining how to categorize data will appropriately link results to the goals of the costing process. It is more difficult to retrospectively categorize costs; therefore, this planning step requires careful consideration and critical thinking. Below are two potential methods for grouping data: WHO Building Blocks and Program-Specific categories.

**WHO Building Block Framework** This approach summarizes the expenditure of each health unit into discrete categories based on the six health system building blocks proposed by the World Health Organization. In the table below building blocks are listed with examples:



**In the case of Rwanda,** using the District Pharmacy as an example costing unit, the services offered by the pharmacy included receiving periodic inventories and purchasing orders from all of the health centers and hospitals in the district. The pharmacy

performed a district-wide quantification, ordering and stocking medicines from the central procurement center in the capital city. Health centers and hospitals within the district then received their medicines locally from the pharmacy. Resources needed at the

district pharmacy included personnel, buildings, and equipment such as vehicles and pickup trucks among others. Funding for the pharmacy comes from the MoH to cover personnel salaries and some of the capital costs, as well as from NGOs and other

partners within the district. There was also an amount of revenue generated from selling medicines to the health centers and hospitals, which also helps to fund some of its services. All of these factors were relevant to the costing process.



# Cost Mapping for WHO Building Blocks Framework

<b>Service Delivery</b>	Infrastructure such as buildings, maintenance and operational costs, transportation costs, non-medical equipment and furniture, vehicles, and maintenance and operations such as utilities and transportation fuel
<b>Human Resources</b>	Health workforce at the facilities and community: Salary, benefits, travel allowances, trainings and professional development
<b>Medicines, vaccines and technology</b>	Essential and specialized drugs, vaccines, laboratory materials and supplies
<b>Information Systems</b>	Health information accessibility costs, communications equipment, computers, servers, PDAs, satellite dishes, printers and accessories
<b>Leadership and Governance</b>	Expenses for senior (MoH & PIH) District staff; salaries and benefits, travel allowances, training and capacity building activities
<b>Health System Financing</b>	Social and financial risk protection: Community health insurance “Mutuelle” costs

**Program-Specific categories** In health systems where programs are very distinct from one another, allocating expenses by program as opposed to natural expense categories can be an effective costing approach. Delineating programs can be an intuitive first step for analysis. For overlapping and inter-connected services, it can be helpful to map out whether they should be split from one another or grouped together into cohesive units. It may also be appropriate to code costs using a number of categories. For example, building block, specific program, or up-front versus recurrent cost.

<b>Grouping</b>	<b>Advantages</b>	<b>Disadvantages</b>
-----------------	-------------------	----------------------

<b>WHO Building Blocks</b>	<p>Allows resource mapping based on the standard health system strengthening framework</p> <p>Can identify areas with deficits or surfeits of resources</p>	<p>Unable to determine specific program costs</p> <p>Framework may not reflect the overall allocation strategy of the district or national program</p>
----------------------------	---	--

<b>Program-Specific Information Systems</b>	<p>Helps managers easily compare costs of specific programs (e.g. HIV care, maternal and child health, outpatient, inpatient)</p> <p>Allows for easy linking of program costs to outcomes</p>	<p>Difficult to allocate shared resources such as health information systems, management, referrals</p> <p>Likely to be a more resource-heavy and time-consuming process</p>
---	---	--

## 2 DATA NEEDS ASSESSMENT

Once the timeframe, stakeholder commitment, and planning approach are established, data and their sources can be determined and gathered.

**Determine scope of data to be collected** Costs may be viewed at a project level or a macro/societal level. For an analysis focused on cost of care delivery, costs would be measured from a narrower provider perspective. A societal perspective would include costs like productivity lost while a patient is seeking care. Cost estimates should ideally go beyond monetary and accounting values. Analyses should include economic costs, such as costs of in-kind services, workers, or goods; and depreciation of pre-existing facilities and equipment. Both direct and economic costs support understanding the full cost of providing services. Omitting in-kind resources can underestimate the costs of care.

Depending on local accounting protocols, data related to funding and expenditures for identified units may become available following the end of a given fiscal period. Data may be for a fiscal year or quarter. While awaiting information on a current fiscal period, data from previous fiscal periods can substitute for planning purposes. If past fiscal period data is not relevant, the same design can still be applied to collect data from current and future fiscal periods. Populating costing models requires identifying where the data are housed including at the facility, district management office, the national level, or with individual sources such as NGOs. Data collection may require a multiple meetings with the central government entities like the MoH or national drug procurement agency to follow up on information that is not available at the local entities.

**Data collection tools** Once a costing approach has been determined, tools are critical to facilitate efficient data collection and analysis. Examples of cost analysis tools are located in the Annex of this document. Tools may need to be modified based on the specific costing analysis, resources available, and the appropriateness of the tools for the local context. Other tools that are site-specific, such as financial statements and procurement databases must come from each entity in the costing project.

Before beginning data collection, the following tasks should be completed:

**Design and finalize** survey instruments and documentation

**Translate** survey instruments into local language

**Collect** pilot data using surveys and data team at 1-2 health facilities

**Enter** pilot data into the database

**Analyze and revise** survey instruments and database reflecting qualitative feedback on the data collection process

**Develop** data collection manual to standardize collection and reporting methodology

**Train** staff and data collectors on the survey instruments with a data quality audit plan in place

**Collect** data needed to answer core aims and end collection of data unnecessary to core questions



The table below describes types of information to be collected, potential sources of data, and prospective points of contact for each.

### Data Types, Sources, and Contacts

Information to collect	Potential sources	Potential contact
<b>Existing capital</b> Fixed costs such as building maintenance costs, utilities, inventory, and value of major equipment	Facility records and accounting reports	Director of finance or accountant
<b>Annual expenditures</b> coded to facilitate stratification by cost categories during the analysis (program, WHO building blocks, etc.) human resources, infrastructure, medicines, information technology, social support (financing), leadership and management	Facility financial reports	Director of finance or accountant
<b>Annual funding by source:</b> government, private, NGOs, other revenues	Facility financial reports	Director of finance or accountant
<b>In-kind donations by source:</b> government, private, NGOs	Facility financial reports	Director of finance or accountant, Director/ manager of human resources

## STAFF TRAINING AND SENSITIZATION

When designing survey instruments, it is important to keep in mind that every health system will have facilities and units that perform different activities. Therefore surveys should be designed flexibly to reflect various data approaches and metrics.

### Design survey instruments

The main survey instrument for data collection is a Health Expenditure Survey. This survey captures both what the facility receives in funding support and how it spends that support. Expenditures may be grouped by category such as human resources, medicines, etc. as with the WHO Building Blocks Framework or by program. The template presented in the Annex of this toolkit will need adaptation to individual contexts.

Data collectors should be involved in the design of the collection instrument, and planners should observe the data collectors pilot test the surveys, get feedback, and adapt the tool as needed in response to any unforeseen issues. Planners should develop a survey companion guide to explain where different resources may be found to ensure consistent and high data quality so all involved in the process would draw the same conclusions from the same information. The Health Facility Expenditure Survey has two major components and is structured as follows:

#### **Funding and sources**

Domestic government resources: MoH, payments from public insurances

Private funds: household out-of-pocket, domestic NGOs, private insurances

External health aid funds: e.g. global fund, PIH

In-kind donations

#### **Expenditures by category**

Human resources: salaries, benefits, incentives, consultants, travel, and trainings

Infrastructure for health services delivery: buildings, vehicles, equipment and furniture, utilities, and maintenance fees

Health information systems: IT equipment such as computers, software, communications, printing, and copying

Expenses on social support for patients etc.

The Health Expenditure Survey can be administered in electronic or paper format. Electronic data collection using mobile devices has many benefits, including streamlining analysis, mobile monitoring of workers, early identification of data quality issues, and security of potentially sensitive information. However, the decision to collect data on a mobile device such as a tablet may add time to training sessions and may increase the initial costs of the data collection process. Careful planning of the data entry stage, whether captured electronically or entered from paper surveys, needs to be designed with a plan for data use and extraction. For example, automated reports can often accelerate data feedback and data quality audits.

**Database creation** If a site is not using electronic data capture which automatically populates an existing database tool, the site will need to design and develop a database. There are a variety of platforms available - including Microsoft Excel and Access. The database should be built based on existing team knowledge and aptitude, suitability to the costing project and capacity, and need for reporting and data use. As an example, if data will be collected from several sources across multiple years, the volume of data may exceed the capabilities of Excel. Access may be better designed for this scope. Yet design in Access would require a longer lead time to ensure data extraction and reports are accessible and functional. Access would likely also require training to optimize functionality. This toolkit example assumes that the multi-year costing dataset will require Access. Some additional guidelines for design are:

**Layout** should mimic the design of paper-based surveys as closely as possible.

**Arrangement** of forms should be in a table format, with observations arranged by year and variable name. This format facilitates upload to statistical packages for further analysis.

**Automated reports or formulas** should be used to connect data whenever possible so that derived data will update automatically when inputs are changed.

## TOOLS FOR DATA COLLECTION AND ANALYSIS

### Excel

Has some data analysis capabilities but its primary function is to create financial spreadsheets

Can be used for smaller datasets and simple lists

Presents challenges merging multiple data sources

Function commands can unify data but validation tools are not robust

### Access

Designed to collect, sort, and manipulate data

Can create Data Quality Control features that ensure valid data are entered and missing data are eliminated

A relational database (a database structured to recognize relations among stored items of information) allows for linking of an multiple tables and therefore an numerous number of variables

Modules facilitate data entry, integration, synthesis, and report writing

## Training Data Collectors

Provide 1-2 days training on data collection procedures and ensure that the collection team is familiar with key approaches in the data collection process. Data collectors should spend time practicing “mock” data entry and interviews with the data manager to ensure that data are collected and documented properly.

**Key informants** Staff members at the entities who will provide cost data serve as key informants to the project. Trainings for these staff members should take place before data collection begins and annually before the start of a new fiscal year, in the case of a multi-year costing exercise. This training emphasizes engagement to support the process, familiarity with survey questions, and preparation in advance of data collection. A standardized training will accelerate the collection process, reduce missing data, and improve data quality. Potential staff members that need training may include:

Individuals responsible for finance and accounting at each targeted facility including accountants, cashiers, or equivalent if no accountants are available,  
 Director of logistics and procurement or equivalent from the district office,  
 Data and procurement managers or equivalent from the district warehouse,  
 Human resources director or equivalent.

**Format of the trainings** Training materials including slides and surveys should ideally be presented in the local language. The data collectors, with support from their supervisors, can develop the training materials, and schedule and lead training sessions for the key informants.

The duration of the training can range from a few hours to a full day. This allows sufficient time for participants to fully understand what data are expected from them and for them to ask questions and explore possible data collection scenarios. Additional training should be provided every few months to refresh knowledge of the participants; however, if participants feel that a repeated full training is necessary, a follow-up training may also be conducted in a one-day format. An evaluation should be provided to the participants at the end of the training to help inform and improve future trainings.

Before beginning each training session, ensure the following requirements are met and tools are available:

- Space** for training
- Projector** and power connection
- Presentation slides** ideally in the local language with copies available
- Surveys** copied and translated in the local language
- Training exercises** copied and translated in the local language
- Refreshments** for trainees and trainers
- Evaluation forms** for participants
- Transportation** facilitation/fees, if appropriate

# 4

## DATA COLLECTION AND MANAGEMENT

**Implementing the survey** The final step in the data collection process is to obtain financial data. To do so, schedule meetings and data collection hours with the personnel responsible for the management of the financial data, confirming these meetings a day in advance of the site visit. When obtaining the financial data, the collectors should do so systematically by following the order of the survey, beginning first with funding data followed by expenditure data.

When completing the survey at the facility or office it may not be possible to obtain all of the needed data points during the initial visit. Multiple visits and follow-up calls may be needed in order to collect all of the required data. During the data collection and data entry processes it may become apparent that the survey would benefit from revisions. During the first few rounds of data collection, and as long as changes to the survey do not compromise the validity of the data points already collected, revisions should be suggested by data collectors and implemented by the analysis leaders. Modifications should be made on an iterative basis to further streamline the data collection process and improve the quality of the data obtained.

In addition to the required survey fields, the data collectors should be encouraged to document any concerns, potential data quality issues, or additional relevant observations on the survey itself. Such notes should be discussed during regular team meetings and will be important during the data analysis and dissemination phase if any results need additional verification.

### SURVEY ADMINISTRATION TIPS

**Do not leave any spaces blank** within the survey. Establish a plan for documentation if no data is available. For example, populate survey with question mark with a zero.

**If data are missing** or need to be followed-up on, note follow-up steps on the survey.

**Write neatly** in the spaces provided in the survey.

**If there is not enough space** to document on the survey, use the margins to write a response. The survey can be revised to allow for additional space in the future.

**Data entry can begin** before surveys are completed.



**Supervising and managing data collection** The Coordinator should complete a Data Collection Progress Form at the end of each week to update and track data collection. In addition, regular meetings with the team are critical to providing feedback on data quality reports, receiving input on needed survey changes, addressing challenges and concerns raised from the field, and developing solutions.

**Data quality assessment** When collecting multi-year data there will likely be instances in which the data are either incorrect or not available at all. Prior to beginning data collection, planners should decide on a method to document data quality standards to which all entered data will adhere (color-coding, numeration of categorical data, etc.). The following are some guidelines and examples of how to track missing, incorrect, or incomplete data including noting and correcting mistakes in a clear and systematic way.

**Data quality concerns** A note should be made if the value of a data point seems implausible, incorrect, not possible, or incomplete. The note should indicate potential alternative sources from which data could be obtained should the value prove to be incorrect or missing. In Excel such data can be color-coded to indicate it is not ready for analysis. In Excel or Access an indicator field can be added so that errors can be sorted or queried based on the concerns. There are ways in either electronic data capture or in manual data entry to automatically flag these issues.

**Estimated values** Estimation of data values should be noted on the paper survey. If possible and relevant, specify why the health facility does not have the missing information. The table below suggests procedures for estimating missing data values. In the Rwanda costing study, the data team sorted through all of the data together to determine which items needed to be estimated and made note of the data sources from which the estimation was derived (scholarly articles, consultants, local markets, etc.).

**Missing data** When data are unavailable make a note of the reason why and indicate if the data may become available at a future point in time. Ensuring the ability to code as “missing” rather than leaving a blank space on the data collection tool is important for data quality audits and analysis. If a statistical package is used to record and analyze data, the missing values should be entered in accordance with the software’s methodology so that missing values are not interpreted as 0 values. If data is obtained successfully at a later point in the study, return to the data entry form and remove the value from the list of missing data and also track any post-hoc changes being made, including date and by whom.

**Missing  
info**

**The current market value is unknown**

**solution**

Use the price for the same item purchased within three years.

**example**

If a table cost 20,000 in 2016 and a similar table was purchased in 2013, assume that the 2016 table also cost 20,000. However, if the similar table was purchased in 2010, another method to price the table should be considered because it has been more than three years since the purchase.

**The price is unknown**

If a similar item was purchased more than three years from the date of the purchase of the item of known price, use the inflation rate/CPI/GDP deflation rate in order to calculate the price of the item.

If a chair cost 10,000 in 2016 and a similar chair was purchased in 2007, use the calculation to establish the value of the chair in 2007.

**If the year of purchase is unknown**

Research current market prices of similar items. Continue to collect data on quantity and purchase year clarify and if the item was received in-kind or not.

A piece of lab equipment of unknown value was acquired in 2010. Document the manufacturer and model number, and research the value of item on-line (if still available for purchase).

Identify a date range or estimate what decade in which the item was purchased.

A laptop was purchased in an unknown fiscal year. Research the manufacturer and model number on-line to determine an approximate year of purchase.

## ANALYZING AND DISSEMINATING DATA

**Data analysis** After obtaining information needed for “data-driven decisions,” data analysis is necessary. The team should choose whether to analyze data using Excel, Access, or an advanced statistical package such as STATA or R. This decision should be made based on the amount of data gathered, the skills of the data analysis team, and the overall goals of the data evaluation. If the team lacks sufficient skills for robust data analysis, leadership should consider contracting a consultant to perform the final cost analysis. In addition, planning ahead for automated reports can greatly accelerate and improve data collection, feedback, and ultimately decision making. The format of reports should be discussed with the target audience confirming that all needs and expectations are met.

An overall objective of the DDCF-funded Population Health Implementation and Training (PHIT) study in Rwanda was to aggregate detailed funding and expenditure records over five fiscal years. Categorization by funding source and expenditure using WHO building block or program category allows more effective program assessment.

**Funding source analysis** To determine the total value of funds as well as funding by source, data should be aggregated from all relevant worksheets and Excel or Access files. All sources of funding should be included as they apply to the study. These should be added to calculate total funding:

**Internal to country:** Government, national and local insurance

**External:** Global Fund, Partner In Health, UN agencies (UNFPA, UNICEF), etc.

**Private:** household out-of-pocket, private insurance and other private spending

**In-kind funding**

**Other funding sources**

**Expenditure analysis** As in the funding portion of the analysis expense data must be aggregated across multiple sources. In this example, WHO building blocks are used to categorize expenditures. Each project can choose a preferred framework or structure. Using the WHO framework expenditures to compile include:

**Human Resources (HR):** salaries, benefits, incentives, consultant fees, travel and training cost for staff, professional development and conference fees, and other taxes

**Health service delivery (HSD):** maintenance, insurance, rentals, utilities, transport costs, non-medical equipment, and supplies

**Medicines (MED):** drugs, medical and lab supplies, other medicine related expenses

**Health information system (HIS):** information technology equipment (computers, phones, copiers, scanners), software, and communications costs

**Health financing (MUT):** social support expenses i.e. insurance co-pays for poor patients, private insurances, and other financing related expenses

**Other:** aggregation of expenses not otherwise accounted for

**Total of all expenditures= Sum of HR + HSD + MED + HIS + MUT + Other**

**Existing Capital Analysis** The value of analyzing the existing capital separately is to determine exactly how much of existing infrastructure should be counted as an expense each year. An example of capital analysis is depreciation, which takes into account the useful life years of each capital item. Specifically, most capital assets such as buildings and major equipment last for multiple years so their costs should be allocated across multiple years based on a depreciation formula. Omitting these types of cost and recognizing only the annual expenses from a given year may lead to underestimating true expenditures (for techniques of annualizing, see an Annualized Cost Calculator available on the web). Counting the aggregate of all expenses related to infrastructure and other overhead expenses includes the valuation of:

- Buildings
- Equipment and furniture
- Vehicles
- Utilities equipment such as generators (v. annual expenses for utilities)

**Dissemination and data utilization for decision making** After completing the analysis, typically annually, planners should meet with all stakeholders focusing on individuals from facilities where data was collected, present and validate findings, and discuss ways to utilize the results moving forward. This meeting should include a discussion of how and with which external entities these results will be shared and who will be responsible for any needed actions.

**Organization and selection of attendees** Dissemination meetings can be organized by the catchment of analysis (a District in the case of the analysis in Rwanda), where all of the delegates from all of the facilities meet together. Typically two to three individuals per facility from 10 to 20 facilities within a district would be included. The duration can range from a half-day to a full-day depending on the number of facilities within a district. Planning should include: transport of participants, refreshments, and securing and setting up a meeting room in advance of the meeting. The content can be presented as PowerPoint slides, printed policy memos, formal reports as handouts, etc. The purpose of these meetings is both to continue engaging the stakeholders identified at the beginning of the costing process and to share and discuss the results for actionable conclusions promoting a culture of data use to facilitate improvement.

Outside of the dissemination meetings mid-year and final reports for the MoH or funder of the analysis may be required. Depending on the goals and findings these data can also be used in peer-reviewed publications in the journals for external audiences.

**Data utilization to improve decisions and practice** Major investments in data collection do not necessarily lead to that data being used to improve the health systems. Similarly, costing information from the analysis process lacks value unless it is used to inform decisions that allows for making the most of scarce resources.

Committing to understanding data utilization as one of the main objectives of the costing process ensures effective data use at the beginning of the costing work and

throughout the duration of the process. Support of this goal begins with an assessment to help stakeholders, health managers, and other intended end users to identify how costing information might help address inefficiencies in resource management or future targeted resource allocations. Once these specific needs are identified the core presentation and visualization tools will stimulate data demand, build capacity to use data, and thereby enhance data-informed decisions in the health system.

**Steps to support the effective use of costing information** Several intentional steps can support effective use of information for decision making:

**Engage Stakeholders** Make sure all stakeholders and intended users understand how data are being produced and how they can be used. The best platforms to accomplish this goal are the initial and recurrent stakeholder meetings and trainings.

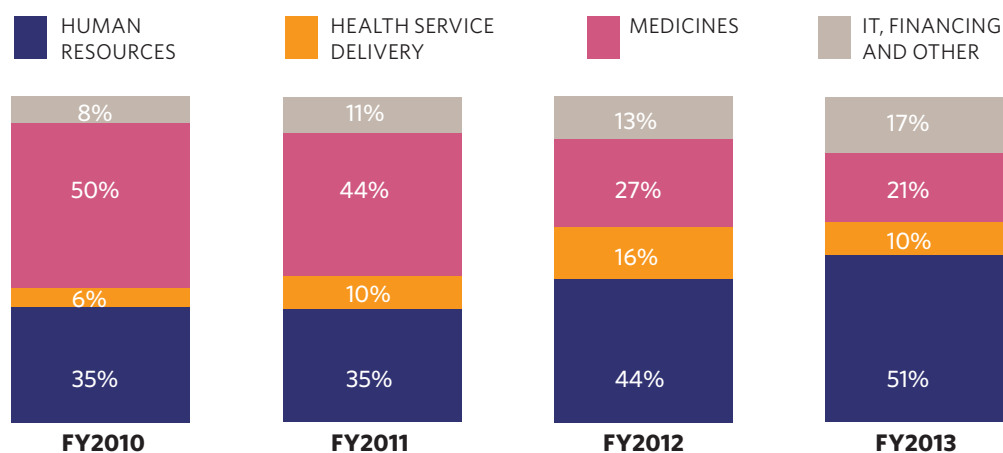
**Ensure high quality, complete cost data** Data quality and effective visualization are key to data use.

**Identify and address barriers to using information** Engage in dialogue with stakeholders to fully understand the financial and pragmatic decisions they have to make, information they need, and the best ways to present and visualize that information to meet their needs.

**Create visuals and tools to make data accessible** Develop tools that convey complex information in accessible ways with audiences who may not be comfortable with spreadsheets or traditional finance presentations.

## HEALTH SYSTEM SPENDING

WHO building block spending in Kayonza and Kirehe districts of Rwanda



The graph above synthesizes a significant volume of data into an intuitive presentation showing district health expenditures grouped into WHO building blocks over a period of four fiscal years. It demonstrates the increase in health spending on health workforce over time. Depending on the context and unit of analysis the presentation of information could showcase a single health facility and inform resource allocations such as the hiring of new nurses, advocacy for stock outs of medicines etc., or address system-wide trends.

## CONCLUSION

At first developing a cost model for a health services and systems in a resource-limited country, whether on a district or national scale, can be a challenging task due to a lack of consistent financial records, strong information systems, or experience with the process.

By following systematic steps and engaging in effective planning it is possible to gather information on resources used in the system and to identify which parts of the health system or clinical programs are using those resources.

This toolkit offers guidance with each step of the costing process from planning to final analysis to utilization of results with the goal of informing effective resource allocation to improve health.

## ACKNOWLEDGMENTS

We are grateful for the contributions of many in supporting IMB's costing work in Rwanda and developing this toolkit including: Chunling Lu, Sandy Tsai, Placide Habinshuti, Ryan McBain, Adarsh Shah, Micaela Browning, Catherine Kirk, Hari Iyer, Felix R. Cyamatare, Peter Drobac and the PIH/IMB Research Department. The costing of the district health system in Southern Kayonza and Kirehe Districts of Rwanda was developed with tremendous financial support from the Doris Duke Charitable Foundation and the support of IMB partners in the Rwandan Ministry of Health and staff at the health facilities who are integral to success of this costing work.

## BIBLIOGRAPHY

<sup>1</sup>Fryatt, R., Mills, A., & Nordstrom, A. (2010). Financing of health Systems to achieve the health Millennium Development Goals in low-income countries. *The Lancet*, 419-426.

<sup>2</sup>Lu, C., Tsai, S., Ruhumuriza, J., Umugiraneza, G., Kandamutsa, S., Salvatore, P., Ngabo, F. (2014). Tracking Rural Health Facility Financial Data in Resource-Limited Settings: A Case Study from Rwanda. *Plos Med PLoS Medicine*.

<sup>3</sup>World Health Organization (2010). *Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies*. Geneva: World Health Organization. pp. 45. Available: <http://www.who.int/healthinfo/systems/monitoring/en/>. Accessed 15 September 2015.

## Health Expenditure Survey

(Health Centers)

Date of Interview (dd/mm/yyyy):

[ ]/[ ]/[ ]/[ ]/[ ]/[ ]

Name of interviewer(s):

\_\_\_\_\_

Name of Facility:

\_\_\_\_\_

District:

\_\_\_\_\_

Province:

\_\_\_\_\_

Individuals interviewed:

Name	Position	Contact information

Part 1: Fiscal Year

\_\_\_\_\_

Fiscal Year Start Date

\_\_\_\_\_

Fiscal Year End Date

\_\_\_\_\_

In this part, we will collect the following information for the fiscal year: (1) Table 1 for financing sources, (2) Table 2 for health expenditures during fiscal year

If unable to provide a specific value for some items but know the range of the value, **provide the answer with the range**. For example, if cost medical equipment purchase is unknown, but spending is known to be between \$200 and \$500, provide range.

Partners In Health//Inshuti Mu Buzima

For each table, the listed items should be mutually exclusive. Each item can only be counted once. For example, if computers purchases are recognized in the “Equipment” section, do not include that in the category of “Health Information.”

**Table 1. Financing sources for fiscal year**

Additional tables have been provided at the end of Table 1, for information about specific kinds of In-kind RWF information, particularly for trainings, patient food, Community Healthcare Worker materials, TB and Family Planning medicine, and vaccines. Please complete in the tables.

<b>1. Domestic government resource allocation (including In-kind RWF support)</b>		
<p>1.1a Total value of resources received from the Rwandan government, <i>excluding funds from the Mutuelle office</i>.</p> <p>Include MOH, District Office, District Hospital, and any other government source.</p> <p>Please include money from PBF (total received), PNL, money for CHWs, Rwanda Development Organization.</p> <p><b>Include any money in Entrées, Row 22</b></p>	Source _____	RWF _____
	Source _____	RWF _____
	Source _____	RWF _____
	Source _____	RWF _____
	Source _____	RWF _____
	Source _____	RWF _____
		TOTAL _____
		-9. Don't know (please specify reasons).
1.1b Funds received from Mutuelle office, excluding the “ticket modérateur” (copayments).		RWF _____ -9. Don't know (please specify reasons).



1.1c Funds received from RAMA, excluding patient copayments.		RWF _____ -9. Don't know (please specify reasons).
1.1d Funds received from M.M.I, excluding patient copayments.		RWF _____ -9. Don't know (please specify reasons).
1.2 Did you obtain In-kind RWF support from the government?  Examples: free consultation, <b>paid staff (including doctors and nurses)</b> , services, <b>medicine, vaccines</b> , medical equipment, vehicle, computers, furniture, office supplies, construction, bed nets, contraceptive products, <b>trainings</b> , etc.		1. Yes. 2. No. Go to "2.1". -9. Don't know (please specify reasons).
1.3 Does the value reported in "1.1" include the entire value of In-kind RWF support?		1. Yes. Go to "2.1". 2. No. 3. N.A. -9. Don't know (please specify reasons).
1.4 If the value of some In-kind RWF support is not included in the answer of "1.1", please identify the remaining In-kind RWF support items, quantities, and their market unit prices as much as you can.		
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.

Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.

		-9. Don't know.
<b>Please attach a sheet if more space is needed for "1.4".</b>		
<b>2. Private sources</b>		
<p>2.1a Household out-of-pocket health payments, (including the "ticket moderateur," RAMA and M.M.I. copayments, and payments from uninsured persons).</p> <p>This includes everything in Entrées, Rows 1-13, EXCEPT money from private insurance.</p>		<p>RAMA _____</p> <p>MUTUELLE _____</p> <p>MMI _____</p> <p>HOUSEHOLD _____</p> <p>TOTAL _____</p> <p>-9. Don't know (please specify reasons).</p> <p>Circle one: OOPS is</p> <p>Lumped into general budget</p> <p>Spent on special items: _____</p>
<p>2.2 Domestic NGOS (Example: First Lady Foundation, Kabeho Mwana, etc.)</p>	<p>NGO1 Name _____</p> <p>NGO2 Name _____</p> <p>NGO3 Name _____</p>	<p>NGO 1: _____</p> <p>NGO2 _____</p> <p>NGO3 _____</p> <p>TOTAL _____</p> <p>-9. Don't know (please specify</p>

		reasons)
<p>2.3 Did you obtain In-kind RWF support from domestic NGOs?</p> <p>Examples: free consultation (<a href="#">doctors and nurses</a>), <b>paid staff</b>, services, medicine, vaccines, medical equipment, vehicle, computers, furniture, office supplies, <a href="#">bed nets</a>, <a href="#">trainings</a>, etc.</p>		<p>1. Yes.</p> <p>2. No. Go to "2.6".</p> <p>-9. Don't know (please specify reasons).</p>
<p>2.4 Does the value reported for "2.2" include the entire value of In-kind RWF support?</p>		<p>1. Yes. Go to "2.6".</p> <p>2. No.</p> <p>3. N.A.</p> <p>-9. Don't know (please specify reasons).</p>
<p>2.5 If the value of some In-kind RWF support is not included in the answer of "2.2", please identify the remaining In-kind RWF support items, quantities, and their market unit prices as much as you can.</p>		
Item:	Quantity_____	Unit price
	-9. Don't know.	_____ -9.
		Don't know.
Item:	Quantity_____	Unit price
	-9. Don't know.	_____ -9.
		Don't know.
Item:	Quantity_____	Unit price
	-9. Don't know.	_____ -9.
		Don't know.
Item:	Quantity_____	Unit price
	-9. Don't know.	_____ -9.
		Don't know.
Item:	Quantity_____	Unit price
	-9. Don't know.	_____ -9.
		Don't know.

		Don't know.
<i>Please attach a sheet if more space is needed for answering "2.5".</i>		
2.6 Payments from Private Insurance  (Examples: SORAS, SONARWA, MEDIPLAN, CORAR)		RWF _____ -9. Don't know (please specify reasons).
2.7 Other private sources that are not included in above items (please specify).  Examples: money from health center businesses such as gardens or restaurants.		RWF _____ -9. Don't know (please specify reasons).
<b>3. External health aid (including In-kind RWF support)</b>		
3.1 Total value of aid received DIRECTLY from Global Fund (GFATM).		RWF _____ -9. Don't know (please specify reasons).
3.2 Did you obtain In-kind RWF support from GFATM directly?  Examples: free consultation (doctors and nurses), <b>paid staff</b> , services, <b>medicine</b> , <b>vaccine</b> , medical equipment, vehicle, computers, furniture, construction done by others (buildings, water tanks), generators, renovations, <b>trainings</b> , office supplies, etc.		1. Yes. 2. No. Go to "3.5". -9. Don't know.
3.3 Does the value reported in "3.1" include the entire value of In-kind RWF support?		1. Yes. Go to "3.5". 2. No. 3. N.A.

		-9. Don't know.
3.4 If the value reported in "3.1" does not include all the In-kind RWF support, please identify the remaining In-kind RWF support, quantities, and their unit prices.		
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.

## Health Expenditure Survey

(Health Centers)

Date of Interview (dd/mm/yyyy):

[ ]/[ ]/[ ]/[ ]/[ ]

Name of interviewer(s):

\_\_\_\_\_

Name of Facility:

\_\_\_\_\_

District:

\_\_\_\_\_

Province:

\_\_\_\_\_

Individuals interviewed:

Name	Position	Contact information

Part 1: Fiscal Year

\_\_\_\_\_

Fiscal Year Start Date

\_\_\_\_\_

Fiscal Year End Date

\_\_\_\_\_

In this part, we will collect the following information for the fiscal year: (1) Table 1 for financing sources, (2) Table 2 for health expenditures during fiscal year

If unable to provide a specific value for some items but know the range of the value, **provide the answer with the range**. For example, if cost medical equipment purchase is unknown, but spending is known to be between \$200 and \$500, provide range.

		know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
<i>Please attach a sheet if more space is needed for answering "3.8".</i>		
<b>3.9 Total value of aid received DIRECTLY from NGO A</b>	<b>Name of NGO A:</b>	RWF _____ -9. Don't know (please specify reasons).
3.10 Did you obtain In-kind RWF support from NGO A directly? Examples: free consultation, <b>paid staff</b> , services, medicine, vaccine, medical equipment, vehicle, computers, furniture, office supplies, <a href="#">trainings</a> , etc.		1. Yes. 2. No. Go to "3.13". -9. Don't know.
3.11 Does the value reported in "3.9" include the entire value of In-kind RWF support?		1. Yes. Go to "3.13". 2. No. 3. N.A. -9. Don't know.
3.12 If the value reported in "3.9" does not include all the In-kind RWF support, please identify the remaining In-kind RWF support, quantities, and their unit prices.		



Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity_____ -9. Don't know.	Unit price _____ -9. Don't know.
<i>Please attach a sheet if more space is needed for answering "3.12".</i>		
<b>3.13 Total value of aid received DIRECTLY from NGO B</b>	<b>Name of NGO B:</b>	RWF _____ -9. Don't know (please specify reasons).
3.14 Did you obtain In-kind RWF support from NGO B directly?  Examples free consultation, <b>paid staff</b> , services, medicine, vaccine, medical equipment, vehicle, computers, furniture, office supplies, <b>trainings</b> , etc.		1. Yes. 2. No. Go to "3.17". -9. Don't know.
3.15 Does the value reported in "3.13" include the entire value of In-kind RWF support?		1. Yes. Go to "3.17". 2. No. 3. N.A. -9. Don't know.
3.16 If the value reported in "3.13" does not include all the In-kind RWF support, please identify the remaining In-kind RWF support, quantities, and their unit prices.		

Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
<i>Please attach a sheet if more space is needed for answering "3.16".</i>		
3.17 Total value of aid received DIRECTLY from NGO C:	Name of NGO C:	RWF _____ -9. Don't know (please specify reasons).
3.18 Did you obtain In-kind RWF support from " NGO C " directly?  Examples: free consultation, <b>paid staff</b> , services, medicine, vaccine, medical equipment, vehicle, computers, furniture, office supplies, <b>trainings</b> , etc.		1. Yes. 2. No. Go to "4". - 9. Don't know.
3.19 Does the value reported in "3.17" include the entire value of In-kind RWF support?		1. Yes. Go to "4". 2. No. 3. N.A. -9. Don't know.
3.20 If the value reported in "3.17" does not include all the In-kind RWF support, please identify the remaining In-kind RWF support, quantities, and their unit prices		

Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
Item:	Quantity _____ -9. Don't know.	Unit price _____ -9. Don't know.
<i>Please attach a sheet if more space is needed for answering "3.20".</i>		
<b>4. Other sources that are not listed above</b> <i>(Please specify)</i>		RWF _____ -9. Don't know.
<b>COMMENTS:</b>  <i>Please write down any comments about the data (for example, if certain sections did not have records, or if there was a change in staff, or any other factors that may have affected the quality of the data).</i>		

**TRAININGS RECEIVED AS IN-KIND DONATION**

Fiscal year:			
Training received	Number of people received training	Donors (who provided the training?)	Number of days

**PATIENT FOOD RECEIVED AS IN-KIND DONATION**

Fiscal year:		
Item Name	Quantity	Donors (who provided the patient food?)

**COMMUNITY HEALTH WORKERS MATERIALS (CHWs) AS IN-KIND DONATION**

Fiscal year: July 2012 - June 2013		
Item Name	Quantity	Donors (who provided the CHW materials?)

**TB AND FAMILY PLANNING MEDICINE AS IN-KIND DONATION**

Please indicate if your health center is a CT or CDT: \_\_\_\_\_

Fiscal year:			
Name of TB Medicine	Unit/Package	Quantity	Please indicate if this quantity is given per month, per 3 months, etc.
Family Planning Medicine	Unit/Package	Quantity	Please indicate if this quantity is given per month, per 3 months, etc.

## VACCINES AS IN-KIND DONATION

Fiscal year:			
Vaccine type	Unit	Quantity	Donor (who gave the vaccines?)

Table 2. Expenditures in your facility for Fiscal Year \_\_\_\_\_

Please do not forget to include any money and the values of In-kind RWF support from NGOs and the government in this fiscal year, unless otherwise noted. If the value of In-kind RWF support is unknown, please write down the value without the In-kind RWF support, and write “In-kind RWF support not included” in the box.

Cost Categories	Examples of cost items	
<b>1. Human resources</b>		
<i>Note: for 1.1 – 1.7, include only expenditures directly paid by your facility.</i>		
1.1 Salary	Base pay & overtime (Net) for your staff that you pay directly. <b>Do not include portions of salaries paid by others.</b>  <i>Write down NET salary. If you do not know the NET, you may write down the gross salary.</i>  Expenses, Row 32 if its gross salary	NET _____  GROSS _____ —  -9. Don't know.
1.2 Benefits/allowances	Housing, meals, etc.  Expenses, Row 34.	RWF _____  -9. Don't know.
1.3 Incentives	Pay for performance, bonuses, top-up, etc.	RWF _____

	<b>Expenses, Row 33.</b>	-9. Don't know.
1.4 Consultant fees	Advisors, computer programmers, trainers, etc.	RWF _____ -9. Don't know.
1.5 Travel costs for training, workshops, conferences	Per diems, travel allowances, transportation cost, accommodations, etc.  <i>Money given to the staff for trainings or workshops only. All other transport should be recorded in 2.2.5.</i>  <b>Expenses, Row 35.</b>	RWF _____ In-kind RWF _____ -9. Don't know.
1.6 Professional Development	Scholarships, tuition reimbursement, etc.	RWF _____ -9. Don't know
1.7a Fees	Memberships, conference registration, professional associations, etc. (exclude fees for CHWs).	RWF _____ -9. Don't know.
1.7b Fees for CHWs	Fees for CHWs  Money from Global Fund, or others transferred to their association.  All money spent on CHW activities, including trainings, salaries, transport, etc.	GVT FOR CHWS _____ GF _____ PIH _____  OTHERS _____  In-kind RWF _____  TOTAL _____  9. Don't know.
1.7c Fees for accompagnateurs	Fees for accompagnateurs  Money transferred from PIH for trainings,	RWF _____

	transport, salaries, and other activities.	In-kind RWF _____  -9. Don't know.
1.8a Total number of volunteers who received no payments from any sources	Students, consultants/advisors, etc. if entirely unpaid.  Example: students on internship or other volunteers.	Number1 _____ — Number2 _____ — Number3 _____ — -9. Don't know.
1.8b Total estimated payments for all volunteers' time	Please estimate the total value of volunteers' wage if you had to pay them.	RWF1 _____ — RWF2 _____ — RWF3 _____ — TOTAL _____ — -9. Don't know.
1.8c Total number of staff paid by other agencies such as donors or government	Staff, students, consultants/advisors, etc. Do not include Mutuelle staff.  Any staff that other NGOs or govt sent to work at the Health Center.	Number1 _____  Number2 _____  Number3 _____  -9. Don't know.
1.8d Total estimated value for staff in 1.8c	Please estimate the total value of staff's wage paid by other agencies, including top ups. Do not include portions of salaries that you pay. Also, do not include Mutuelle staff.	RWF1 _____ RWF2 _____ RWF3 _____



	Salaries of the staff that the NGOs/govt sent.  If they were not paid, how much would you have paid (TOTAL price, not unit price).	TOTAL _____  -9. Don't know.
1.9a Other Taxes	Please include all taxes NOT already included in 1.1-1.7  Example: RAMA, CSR, TPR	RAMA _____  CSR _____  TPR _____  OTHER _____  TOTAL _____  -9. Don't know.
1.9b Other costs related to human resources	Describe briefly:  Examples: staff parties, picnics  <b>Expenses, Row 49</b>	RWF _____  In-kind RWF _____  -9. Don't know.
<b>2. Health Service Delivery</b>		
<b>Note: in section 2.1, please include purchases, but not rentals.</b>		
2.1.1 Vehicles (including items that are paid by donors or government)	Purchases of new: cars, ambulances, motorcycles, bicycles, etc.  Don't forget to include the value of In-kind RWF support for vehicles.  Sortie, Row 57	RWF _____  In-kind RWF _____  -9. Don't know.
2.1.2 Buildings (including items that are paid by donors or	New construction, renovation, etc.  Don't forget to include the value of In-kind	In-kind RWF _____

government)	RWF support.  Sortie, Row 59 and 60		Green book_RWF _____  TOTAL _____  -9. Don't know.
Name/Function of new buildings (Examples: dispensary, inpatient unit, etc.)	Total square meters surface areas (m <sup>2</sup> )	Purchase price	Useful Life (Years it will remain useful <i>from purchase date</i> ).
Building 1	_____ (m <sup>2</sup> )  -9. Don't know.	RWF _____  -9. Don't know	# of years _____  -9. Don't know.
Building 2	_____ (m <sup>2</sup> )  -9. Don't know.	RWF _____  -9. Don't know	# of years _____  -9. Don't know.
Renovation 1	_____ (m <sup>2</sup> )  -9. Don't know.	RWF _____  -9. Don't know	# of years _____  -9. Don't know.
Renovation 2	_____ (m <sup>2</sup> )  -9. Don't know.	RWF _____  -9. Don't know	# of years _____  -9. Don't know.
<b><i>Please attach a sheet if more space is needed.</i></b>			
2.1.3 Furniture (including items that are paid by donors or government)	Purchases of new: patient beds, chairs, desks, cupboards, sinks, etc.  Don't forget the value of furniture In-kind RWF support in the TOTAL.  Sortie, Row 56		In-kind RWF _____  Green book RWF _____  TOTAL _____  -9. Don't know.
2.1.4 Water, electricity systems (including items that are	Description: Water system, electricity system, generators,	Purchase Price	Useful Life (Years it will remain useful <i>from purchase date</i> ).

paid by donors or government)	etc.		
Item 1		RWF _____ -9. Don't know.	# of years _____ -9. Don't know.
Item 2		RWF _____ -9. Don't know.	# of years _____ -9. Don't know.
Item 3		RWF _____ -9. Don't know.	# of years _____ -9. Don't know.
<b><i>Please attach a sheet if more space is needed.</i></b>			
2.1.5 Equipment (including items that are paid by donors or government)	Purchases of new: refrigerators, scales, BED NETS, large lab equipment such as microscopes, hemacount machines, centrifuges.  Don't forget the value of In-kind RWF support.  Sortie, Row 31, 54 and 55	In-kind RWF _____  Green book RWF _____  TOTAL _____  -9. Don't know.	
2.1.6 Other costs related to capital construction		RWF _____ -9. Don't know.	
<b><i>2.2. Maintenance and operation (total value of recurring items)</i></b>			
2.2.1 Maintenance (including items that are paid by donors or government)	Costs on maintaining vehicles, buildings, furniture, equipment, etc.  Sortie, Row 43, 52, 53, and 51	RWF _____  In-kind RWF _____  -9. Don't know.	
2.2.2 Insurance (including items that are paid by donors or	Insurance for vehicles, buildings, furniture, equipment, public liability, etc.	RWF _____  In-kind	

government)	Sortie, Row 44	RWF _____  -9. Don't know.
2.2.3 Rental (including items that are paid by donors or government)	Clinic/office space, meeting/training rooms, equipment rental, etc. (Note: put vehicle rental in 2.2.5).	RWF _____  In-kind RWF _____  -9. Don't know.
2.2.4 Utilities (including items that are paid by donors or government)	Electricity, water, gas, solar panels, etc.  Sortie, Row 37	RWF _____  In-kind RWF _____  -9. Don't know.
2.2.5 Transportation (including items that are paid by donors or government)	Fuel, vehicle rental, other transport costs (motor, bus, etc.) Money the Health Center gives to the staff to travel anywhere during work hours. (Example: home visits, money used to transport nurses to give vaccinations, from Global Fund, PIH, govt, or any other NGOs.) <b>Include money which Global Fund or others gave to purchase fuel.</b>  Exclude travel costs related to trainings. These should be included in 1.5.  Sortie, Row 42	PIH _____  GF _____  Green book _____  In-kind RWF _____  Total _____  -9. Don't know.
2.2.6 Patient costs (including items that are paid by donors or government)	Food, transport reimbursement, incentives (such as payments for taking medicine or returning for re-checks), cash transfers, etc.	PIH _____ GF _____ Green

	Sortie, Row 46 and 36  Include money from Global Fund and PIH (or others) for buying food for patients, or money directly given or trainings for the patient.	book _____  In-kind RWF _____  Total _____  -9. Don't know.
2.2.7 Non-medical supplies (including items that are paid by donors or government)	Register books, cleaning supplies, pens, publications, etc.  (Please try to separate printing and copying costs from non-medical supplies).  Sortie, Row 39 ,41	RWF _____  In-kind RWF _____ -9. Don't know.
2.2.8 Other cost related to maintenance and operation		RWF _____  In-kind RWF _____ -9. Don't know.
<b>3. Medicines, vaccines and technologies</b>		
3.1 Drugs (Including items that are paid by donors or governments).	Essential and program medicines, CHW kits, vaccines, etc.  Sortie, Row 30	In-kind RWF _____  Green book RWF _____  TOTAL _____  -9. Don't know.

3.2 Other medical supplies (including items that are paid by donors or government)	Thermometers, BP cuffs, gloves, masks, delivery kit, etc.	In-kind RWF _____  Green book RWF _____  TOTAL _____  -9. Don't know.
3.3 Laboratory supplies (including items that are paid by donors or government)	Small supplies such as test kits, slides, etc. ( <b>excluding</b> the items that have been reported above such as refrigerators, scales, microscopes, etc.)	In-kind RWF _____  Green book RWF _____  TOTAL _____  -9. Don't know.
3.4 Other costs that are not listed above but related to medicine products		RWF _____  -9. Don't know.
<b>4. Health Information</b>		
4.1 Equipment (including items that are paid by donors or government)	Computers, PDAs/phones, servers, printers, scanners, satellite dishes, etc.  Don't forget the value of In-kind RWF support.  Sortie, Row 58	In-kind RWF _____  Green book RWF _____  TOTAL _____  -9. Don't know.
4.2 Software (including items that are paid by donors or government)	Acquisition, maintenance (excluding HR costs, listed above), etc.  Don't forget the value of In-kind RWF	RWF _____  In-kind

	support.	RWF _____ -9. Don't know.
4.3 Communications (including items that are paid by donors or government)	Monthly telephone bills, cell phone bills, internet air time, etc.  Don't forget the value of In-kind RWF support.  (Including money from Global Fund or other NGOs used for communication).  Sortie, Row 38	PIH _____  GF _____  Green book _____  In-kind RWF _____  Total _____  -9. Don't know.
4.4 Printing, copying (including items that are paid by donors or government)	Costs to create public education materials, paper, cartridge, etc.  Don't forget the value of In-kind RWF support, (including printing copies from PIH and other NGOs).  Sortie, Row 40	In-kind RWF _____  Green book RWF _____  TOTAL _____ -9. Don't know.
4.5 Other costs related to health information		RWF _____ -9. Don't know.
<b>5. Mutuelles</b>		
5.1 Total amount billed to the Mutuelle office in the fiscal year		RWF _____ -9. Don't know.

5.2 Total amount received from the Mutuelle Office in the fiscal year		RWF _____ -9. Don't know.
5.3 Other costs related to Mutuelles	Sortie, Row 45	RWF _____ -9. Don't know.
<b>6. Other costs that are not included in above list</b>	Sortie, Row 61, 50, and 48 Please specify all money spent in here  Activity _____  Activity _____  Activity _____  Put total value of all In-kind RWF donations that were not captured above, in "RWF4".	RWF1 _____  RWF2 _____  RWF3 _____  RWF4 _____  TOTAL _____  -9. Don't know.
<b>COMMENTS:</b>  <i>Please write down any comments about the data (for example, if certain sections did not have records, or if there was a change in staff, or any other factors that may have affected the quality of the data).</i>		