POLICYMAKER'S GUIDE

ACTIVITY-BASED COSTING AND MANAGEMENT (ABC/M)

Global Health Security and Diplomacy
U.S. DEPARTMENT of STATE

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CHAPTER 1: INTRODUCTION

WHAT'S IN CHAPTER 1

Chapter 1 provides a general orientation to ABC/M and this user guide. By the end of the chapter, you should be familiar with the general goals of ABC/M and how to get the most out of this guide—based on your role in ABC/M and corresponding objectives.

I. ABC/M: AN INTRODUCTION

In 2020, several global health institutions – including the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), the Joint United Nations Programme on HIV/AIDS (UNAIDS), the United States Agency for International Development (USAID), and the Global Health Security and Diplomacy Bureau (GHSD) aligned behind a new multi-country initiative: activity-based costing and management, or ABC/M.

The ABC/M Initiative is designed to assess the costs of providing health services in low- and middle-income countries. This cost data will then serve to improve the efficiency and allocation of health resources in these countries. While past initiatives have sought to cost health services, the scope and scale of ABC/M are unique. Regarding scope, ABC/M quantifies a wide range of health services within and across countries. Regarding scale, ABC/M typically entails tracking health resources down to the client-encounter level across thousands of clients and dozens of facilities.

The ABC/M Initiative's objective of improving efficiency and the allocation of resources comes at a pivotal time within global efforts to address health priorities, including HIV. On the one hand, many countries are undergoing a transition through which country governments are assuming incrementally greater fiscal responsibility for service delivery, especially for HIV services.

Achieving targets such as 95-95-95 for HIV/AIDS services requires going the last mile in reaching all populations, fine-tuning services while recognizing the limited resources available.
For more information on the purposes of ABC/M, refer to Chapter 2 and the References section of this chapter.

II. PURPOSES OF THE POLICYMAKER'S GUIDE AND THE DATA MANAGEMENT AND ANALYSIS PLAN

To better inform both consumers (policymakers) and producers (researchers) of ABC/M data, two companion documents have been developed: 1) the ABC/M Policymaker's Guide and 2) the Data Management and Analysis Plan (DMAP).

This first document targets policymakers who are expected to be consumers of ABC/M data. While this document will not go into the detail contained in DMAP, it will provide a broad overview of the ABC/M approach, assessing its strengths and weaknesses, and providing policymakers with a vision of how the data can be used to improve the delivery of services. For a more detailed view of the strengths and weaknesses of TDABC, THIS YouTube video is available.

The main purposes of ABC/M Policymaker's Guide are to:

1. Provide a high-level orientation on ABC/M to policymakers – including ministry officials, funders, and implementers – as to the benefits, planning efforts, procedures, and applications of ABC/M.
2. Understand how the results from an ABC/M exercise can be utilized for policymaking purposes.

The second document, DMAP, provides details for researchers who are conducting ABC/M exercises. DMAP includes the roles and responsibilities of different organizations, methods employed, and learning objectives, dissemination and resources utilized. DMAP includes details regarding ways to organize ABC/M data, methods of analysis, etc.

The main purposes of the Data Management and Analysis Plan are:

1. Provide guidance, tools, and resources for **ABC/M implementers** to execute data collection and analysis in line with a standardized set of procedures, instruments, and best practices.
2. Help **ABC/M implementers** troubleshoot challenges they may encounter throughout the course of data collection and analysis.

There is expected to be some overlap between these two companion documents, as policymakers and researchers will both need to understand the basic approach to ABC/M.

III. HOW TO ENGAGE WITH THE POLICYMAKER'S GUIDE

For Ministry Officials and Stakeholders: Chapter 2 provides an overview of the purposes and concepts underpinning ABC/M. The second half of Chapter 3 discusses policy implications associated with results, while Chapter 4 proposes strategies for institutionalizing ABC/M over a 5-year time frame.

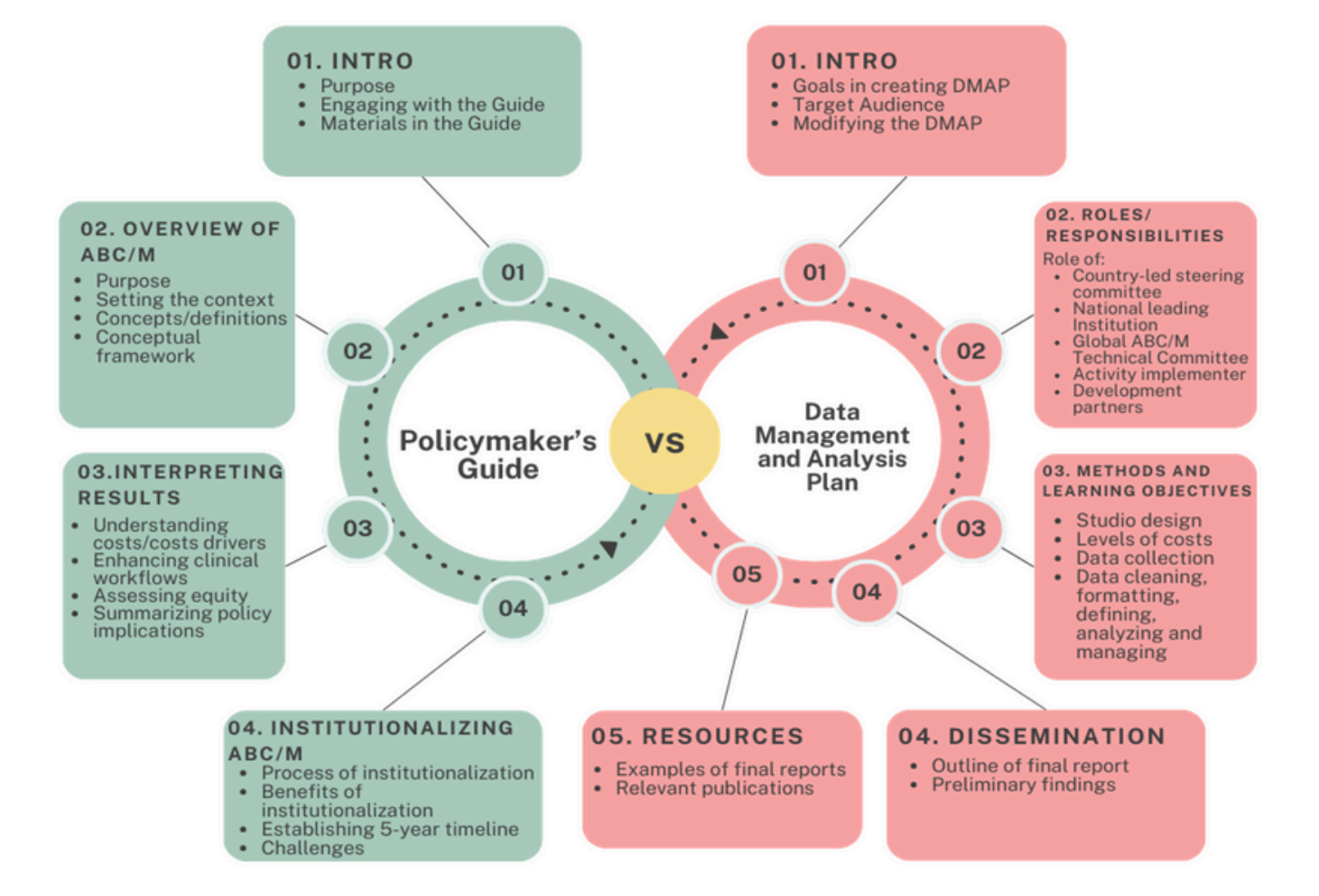
Each chapter is broken into three components: an introductory section that orients the reader to the main content of the chapter; a detailed contents section—and corresponding subsections—that discuss relevant concepts to the chapter; and a bibliography and executive summary at the end of the chapter, highlighting major points that the chapter has reviewed.

Throughout the chapters, there are case studies that are used to describe how the ABC/M approach has been used. In addition, there are also links to YouTube videos so that policymakers can visually engage with the ABC/M process.

IV. MATERIALS IN THE POLICYMAKER'S AND DMAP GUIDE

To the extent possible, the authors have sought to make the Policymaker's Guide interactive. The Policymaker's Guide contains hyperlinks to further readings, YouTube videos walking readers through specific tools and resources, and downloadable data collection and analysis tools. An overview of the Policymaker's Guide is available in THIS Youtube video. Contents within each chapter include tables, figures, and illustrations to help readers engage more fully with the text. The figure below illustrates the chapters contained within both companion documents.

Figure 1. Comparison of Policymaker's Guide and DMAP



V. REFERENCES

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Ruffner et al, 2022. An initiative to track HIV resource allocation. The Lancet HIV. e458.
McBain et al, 2022. A new initiative to track HIV resource allocation and costs. Bulletin of the WHO. 100: 358-358a.

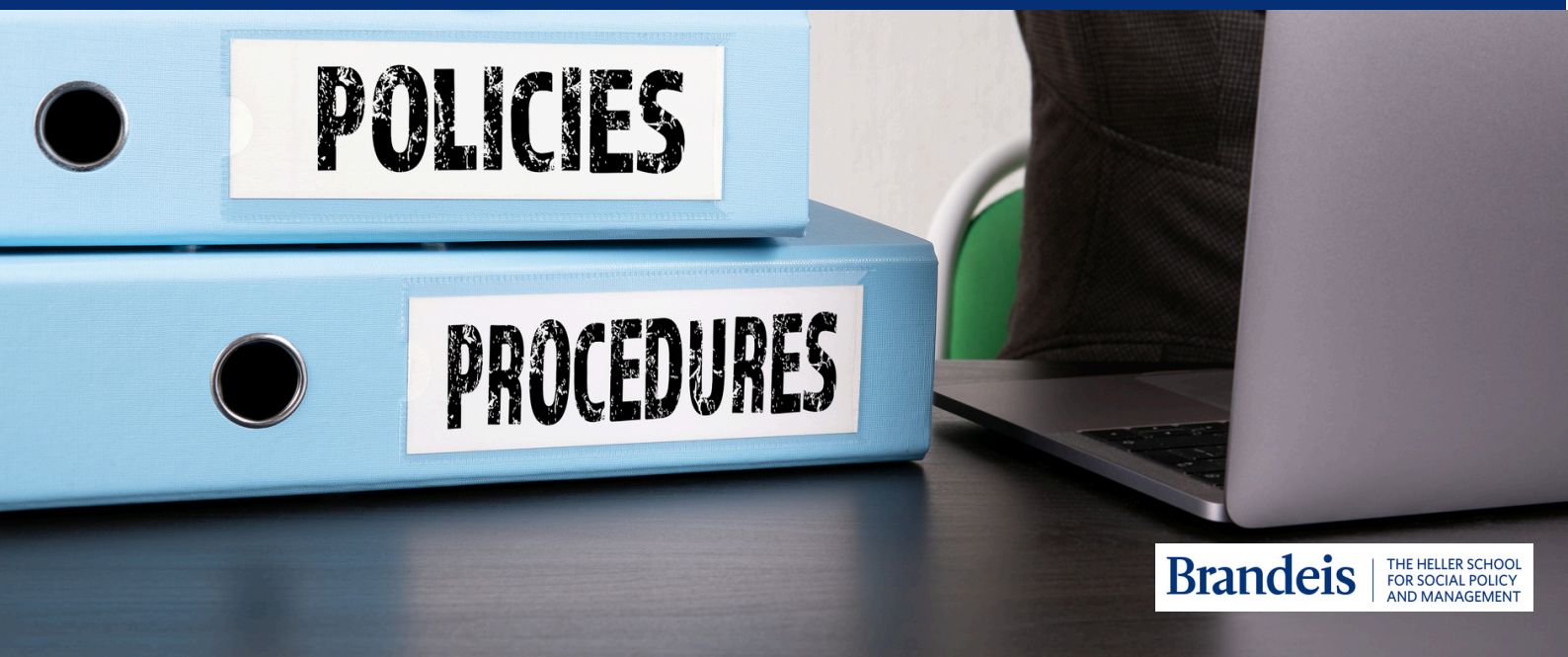
VI. SUMMARY

The ABC/M Initiative aims to cost health services in order to improve efficiency and the allocation of health resources. This will help governments and global institutions to better achieve health goals.

This Policymaker's Guide is mainly intended for policymakers who want to understand the ABC/M process, goals, and applications. The Data Management Analysis Plan (DMAP), is a companion document designed to help researchers who are collecting and analyzing ABC/M data, assuring that they are able to do so in a standardized and consistent methodology.

Readers may want to skip between the Policymaker's Guide and DMAP, focusing on sections that are most helpful to them.

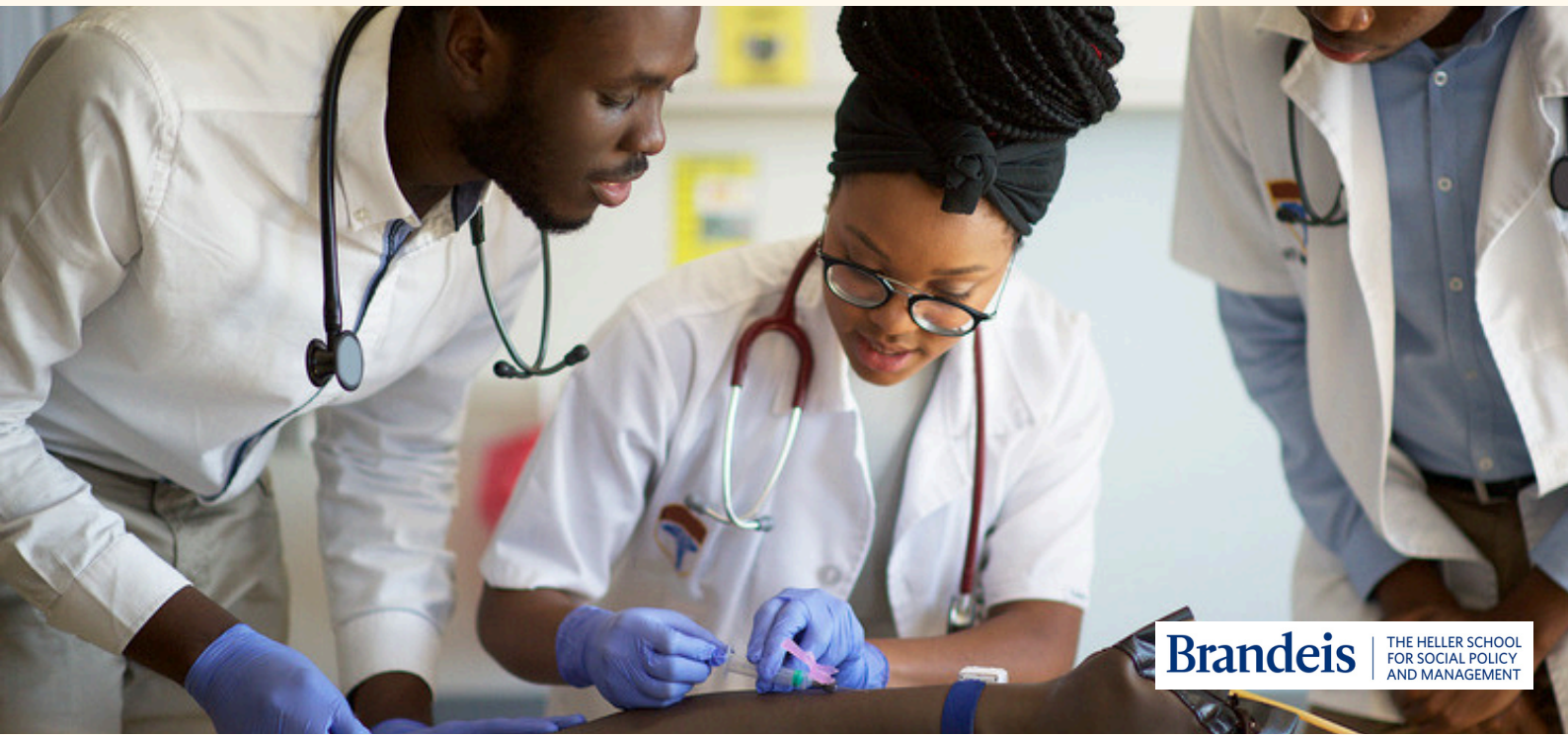
We have tried to make the Policymaker's Guide as brief, focused, and interactive as possible, given the limited time available to policymakers. It contains links to videos, resources, and tools.



CHAPTER 2: AN OVERVIEW OF ABC/M

WHAT'S IN CHAPTER 2

Chapter 2 provides a detailed discussion of the ABC/M initiative—including its objectives and the broader context in which these objectives are situated. By the end of the chapter, policymakers should be familiar with all major aspects of ABC/M, corresponding definitions and concepts, and the major building blocks regarding implementation of ABC/M.



I. PURPOSES OF ABC/M

Activity Based Costing/Management (ABC/M) is first and foremost a system for costing: it allows those who apply it to determine the costs of health care interventions (e.g., HIV prevention, testing, and treatment), or the cost of screening and treatment for health conditions (e.g., hypertension, type-2 diabetes, mental health screening, etc.).

More generally, ABC/M is intended to serve four distinct purposes. These are:

1.Improve estimates of costs and cost drivers

The approach to measuring intervention costs, known as time-driven activity-based costing (TDABC), offers two main advantages over other costing approaches. First, it quantifies resource consumption at the client level, by directly observing and measuring clients' interactions and movements within the health system.

This removes a significant amount of guesswork. Second, it estimates cost using one standard metric, the capacity cost rate (CCR). Section III provides a more detailed explanation of the CCR.

2.Assess vertical and horizontal equity of health systems

In TDABC, costs are quantified at the client level. Thus researchers can measure variation in costs between clients. This variation in costs allows researchers to better understand the factors that influence cost variation between clients, as well as the factors at the facilities that determine higher or lower costs.

In some instances, higher costs assigned to poorer clients may be an indication of vertical equity (i.e., those who are worse-off in terms of their health have better access to care). In other instances, it may be indicative of compromises in horizontal equity (i.e., among those with equal need, those with higher incomes have better access to care).

3.Identify opportunities for clinical quality improvement

By directly observing multiple clients, TDABC allows data collectors to begin to determine the typical pathways that clients take in receiving care —often known as process maps. These process maps provide useful detailed information, including where clients go, who they see, how long they spend on different steps, and what resources are being allocated such as equipment, medicines and laboratory supplies.

Ultimately, clinicians can leverage this information to determine whether the delivery of services is aligned with best practices. If current care services fail to meet expected protocols, policymakers can then design initiatives to improve the quality of the services. For example, a process map may indicate that a person living with HIV is not receiving viral load tests or alternatively, may not be receiving enough time in counseling services

When combined with other clinical data (e.g., community-led monitoring), policymakers may be able to clarify why best practices are not being followed.

For example, they may see that viral load tests are not being performed because samples cannot be sent to a central lab, indicating that providing equipment at the local site for point of care testing might be a preferred and perhaps less costly alternative.

Further, clients may not be receiving appropriate medications because of shortages and stockouts. This gap can be remedied by improving the performance of the purchasing and logistics functions for medical supplies and drugs.

4.Support governments and global institutions to align and optimize investments

Purposes 1, 2, and 3, as described above, serve as inputs for governments and institutions to assemble and collectively examine what the health care returns from its health care spending and investments are buying them—in terms of both system performance and client outcomes.

ABC/M helps ensure that these conversations are built on a sturdy, empirical foundation, particularly when the cost data are combined with epidemiological information and measures of system performance to assess efficiencies and cost-effectiveness of service delivery.

ABC/M not only allows policymakers to understand how resources are being spent, but also allows for improvements in the allocation of resources to achieve lower total costs and improved health outcomes for citizens.

II. SETTING THE CONTEXT FOR ABC/M

The institutions behind ABC/M—including Ministries of Health and Finance, the Global Fund, UNAIDS, USAID, CDC, and GHSD—are united in terms of the goals that are achievable with the ABC/M methodology.

Historically, exercises involving cost analyses have been narrow, methodologically inconsistent, and single point of time and place estimates. By contrast, the ABC/M initiative covers a full spectrum of healthcare delivery and interventions, which is methodologically consistent, institutionalized, and reproducible over time. There is tremendous value in discussing each of these:

Comprehensive

As of 2024, the ABC/M Initiative was being conducted or had been finalized in eight countries throughout sub-Saharan Africa. Within each country, data have been gathered from hundreds (in some cases, thousands) of clients across more than a dozen facilities ranging from small community health centers to large district hospitals.

Furthermore, within each of these facilities, resource consumption and costs associated with numerous interventions are being quantified. For example, HIV testing and counseling (HTC), antiretroviral therapy (ART), screening for hypertension, diagnosis of major depressive disorders, etc.

Since the ABC/M methodology is not disease specific, it is being adapted to country needs for cost evidence across a range of medical conditions and health services.

Consistent

To ensure that findings from ABC/M can be consistently analyzed, data collection tools, training materials, and analytic plans have been standardized (see Data Management and Analysis Plan).

This consistency is intended to support a cross-country learning collaborative, through which Ministries can share their findings, discuss challenges they are facing within their health systems, and brainstorm together on ways to optimize system performance. Tools are adjusted to each country's context, while still following a common methodology to allow cross-country comparisons.

Institutionalized

An essential element to ABC/M is that the process can be institutionalized. The work is conducted under the leadership of a local steering committee (typically under the supervision of the Ministry of Health) and a local collaborating institution (LCI), as opposed to being managed from outside the country.

As LCIs become comfortable with the ABC/M process, they will increasingly lead the data collection, analysis, and dissemination processes under the direction and leadership of their local steering committee. The process of institutionalization will require unique approaches for each country. Chapter 4 provides greater detail about different approaches that can be taken to institutionalize ABC/M.

Reproducible

To the extent ABC/M provides strategic insights to country governments and institutional partners, we hope that this stimulates collective action to make health systems more efficient, effective, and equitable. However, to know whether and to what extent this is true, ABC/M should be repeated at consistent intervals—analogous to plan-do-study-act (PDSA) cycles.

Insights into ABC/M Limitations: Considerations for Policymakers

ABC/M contains limitations that policymakers need to understand. First, executing ABC/M is resource- and time-intensive involving granular data collection efforts – including ethical approvals, direct observation of clients, documenting equipment, consumables, and the dimensions of clinical spaces. Practitioners must also recognize the need to expand the scope of data collection and analysis beyond direct client observations. Second, since typically ABC/M focuses on shadowing clients (as opposed to providers), activities performed in the absence of clients may be overlooked. For example, time spent after a client leaves the treatment room have typically not been costed. This may result in an underestimation of the full cost of human resources.

Third, indirect costs, and community-based and community-led programming may be missed unless additional processes are put in place to quantify these. Fourth, above-site costs (described in more detail in the next Section) may be difficult to collect (due to a lack of data from all organizations paying for a service) and/or allocate (since those organizations paying for the service may not disaggregate these above-site costs to particular services).

Above-site costs are often collected by donors and governments without a focus on the specific services that are benefitting from these costs (e.g., training costs may not be disaggregated into the types of services that are benefitting from this training). Next, costs incurred by clients (patients) may be difficult to collect and/or interpret, such as travel and waiting times.

III. CONCEPTS AND DEFINITIONS

As policymakers review this guide, you may encounter terms with which you are unfamiliar. While many of these terms are easy to query online, several of these are particular to the methods associated with ABC/M. Here, we note three terms that we suggest all readers of the Policymaker's Guide briefly familiarize themselves with:

Financial and economic costs

These are two perspectives for evaluating costs. Financial costing focuses on the explicit and measurable costs directly paid for by providers in producing goods or services, largely those recorded in a company's financial statements. Economic costing goes beyond explicit costs accounted for in financial statements: it captures the full resource use, including donated goods and services that were not captured as expenditures.

Resource valuation

Valuing resources entails assigning monetary value to the various resources used in the production or operation of services. Different approaches can be used to determine the value of resources, each with strengths and limitations. This includes historical costs (valuing resources based on their original acquisition cost), replacement cost (current market prices), net realizable value (the selling price of a resource, minus expected costs of selling it). Activity-based costing assigns whatever method of valuation is used (historical, replacement, realizable value) to the products and services that benefit from the use of resources.

Time-driven activity-based costing (TDABC)

A cost accounting methodology, based on the original version of ABC introduced in the 1980s, that calculates the cost of healthcare resource consumption utilizing two parameters: (i) the unit cost of each resource used in a care delivery process and (ii) the quantity of time that a client interacts with each resource (Kaplan & Porter, 2011).

The most straightforward way of gathering this information is by directly observing clients as they move through the healthcare system. This allows data collectors to inventory the resources (e.g., personnel, physical space, equipment, and consumables) used at each step of the client's care journey and to measure the quantity of time that each resource is used at each step.

Capacity cost rate (CCR)

The cost of a resource per unit of time available for client-related services. For example, if a nurse has an annualized income (inclusive of benefits) of $20,000 per year, and over that year the nurse has 100,000 minutes available to provide client-related services, the nurse's CCR would be: $20,000 / 100,000 minutes = $0.20 per minute. Thus, if the nurse spends five minutes measuring client vital signs, the allocated cost for the nurse would be: $0.20 per minute X 5 minutes = $1.00.

This arithmetic can be applied to three main categories of resources: human resources (providers and staff), infrastructure (physical space), and equipment.

It does not apply to consumables since consumables are, by definition, only used and their cost can readily be measured by the amount spent to acquire and transport the consumables to the treatment location.

Process map

Process maps are visual representations of the care delivery pathways for providing a health intervention. The maps incorporate information on where clients receive services, which providers they interact with, for how long, and what consumables are expended.

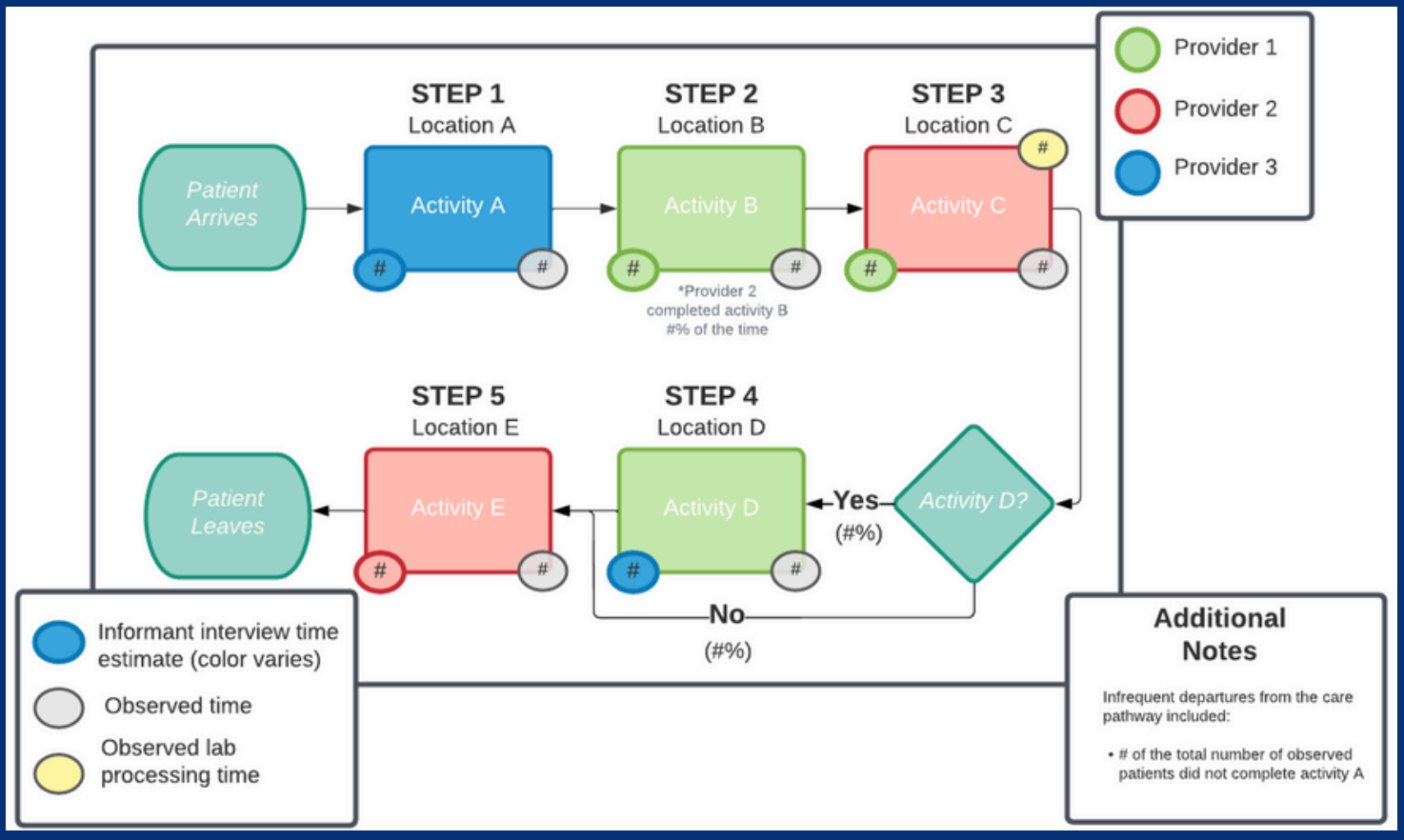
They also incorporate decision nodes (branches) to indicate alternative pathways that may occur following a clinical decision-making process or result from labs/imaging. See below for an example.

Above-site costs

This refers to costs that are incurred at a level higher than direct implementation sites of a program or project. These costs often are necessary to ensure effective program implementation, monitoring, and coordination.

Examples include management and administration, training, mentoring, technical assistance, logistics and supply chain management, and capacity building.

Figure 2. Example Process Map



For those wishing to familiarize themselves further with the principles of TDABC, we recommend the following two articles: The Big Idea: How to Solve the Cost Crisis in Health Care by Kaplan and Porter (2011) and Rethinking the Cost of Health Care in Low-Resource Settings: The Value of TDABC by McBain and colleagues (2016).

IV. A CONCEPTUAL FRAMEWORK FOR ABC/M

In the Data Management and Analysis Plan, implementers are guided through the various processes and procedures associated with executing ABC/M. You can watch THIS video discussing ABC/M Implementation, including planning, challenges, success and advice, from data collection efforts in Tanzania. THIS video illustrates the variation in results viewed in Tanzania and Uganda.

Here, we offer a high-level summary of the implementation sequence, broken down into five steps. These steps are:

1. Develop your scope of work

Your scope of work dictates the overall enterprise of activities you will undertake, corresponding to your research questions (i.e., the questions that you are intending to answer through ABC/M implementation). As outlined in Section I above, these research questions are likely to relate to measuring costs and cost drivers; assessing vertical and horizontal equity of health systems; improving quality of clinical care; and supporting institutional alignment of investments.

Examples of research questions might be: what are the costs of service delivery in urban versus rural communities? How much do costs and resources differ across levels of care—including primary, secondary, and tertiary facilities?

Are some types of individuals (e.g., men) receiving more resources than others (e.g., women)? On a practical level, your scope of work will directly inform you how many regions and facilities you travel to, the health interventions you select for analysis, the number of clients involved in data collection, and your overall timeline and budget.

2. Define your sampling plan

Your sampling plan is a more specific set of specifications pertaining to the populations from which you will sample, the way you will sample from them, how many individuals you will sample, and how that corresponds to your statistical power to assess research hypotheses.

In most settings, ABC/M has used a multi-stage sampling approach. In the first stage, a stratified random sample of facilities is selected, with stratification characteristics pertaining to level of care (e.g., primary, secondary, tertiary care facilities), urbanization (e.g., urban, rural), and funding (e.g., PEPFAR subsidies and support vs. no PEPFAR subsidies/ support).

In the second stage, purposive sampling is used to gather TDABC information on a particular subset of clients who are receiving interventions of interest.

Ultimately the sampling plan must be consistent with the budget allocated for the ABC/M activity. More detail regarding the sample size is provided in the DMAP.

3. Mobilize for stakeholder engagement

Stakeholder engagement is a process of involving individuals and groups with a vested interest in a particular endeavor—in this case, the objectives of ABC/M.

This is important for several reasons, including: 1) it helps ensure the effort is relevant and addresses the concerns and needs affected; 2) it helps build relationships and partnerships that can be valuable throughout the process; and 3) it helps identify and address potential barriers to success—including logistical and ethical concerns.

Countries implementing ABC/M have included a wide array of stakeholders, such as national ministries and agencies, implementers, academic institutions, and funders.

4. Implement TDABC

The processes involved in TDABC are complex and time-consuming. These include direct observation of clients as they move through the health system and receive care, conducting a comprehensive facility inventory of spaces and equipment, and measuring unit costs—such as CCRs as described above.

5. Interpret results and policy implications

Both the quantity and resolution of data gathered through TDABC can make analysis and interpretation daunting. However, systematic structuring of the data, available analytic plans, process maps and data visualization tools can showcase the richness of the information in ways that easily lend themselves to answering research questions established in the scope of work.

V. REFERENCES

Kaplan & Porter, 2011. The Big Idea: How to Solve the Cost Crisis in Health Care. Harvard Business Review.

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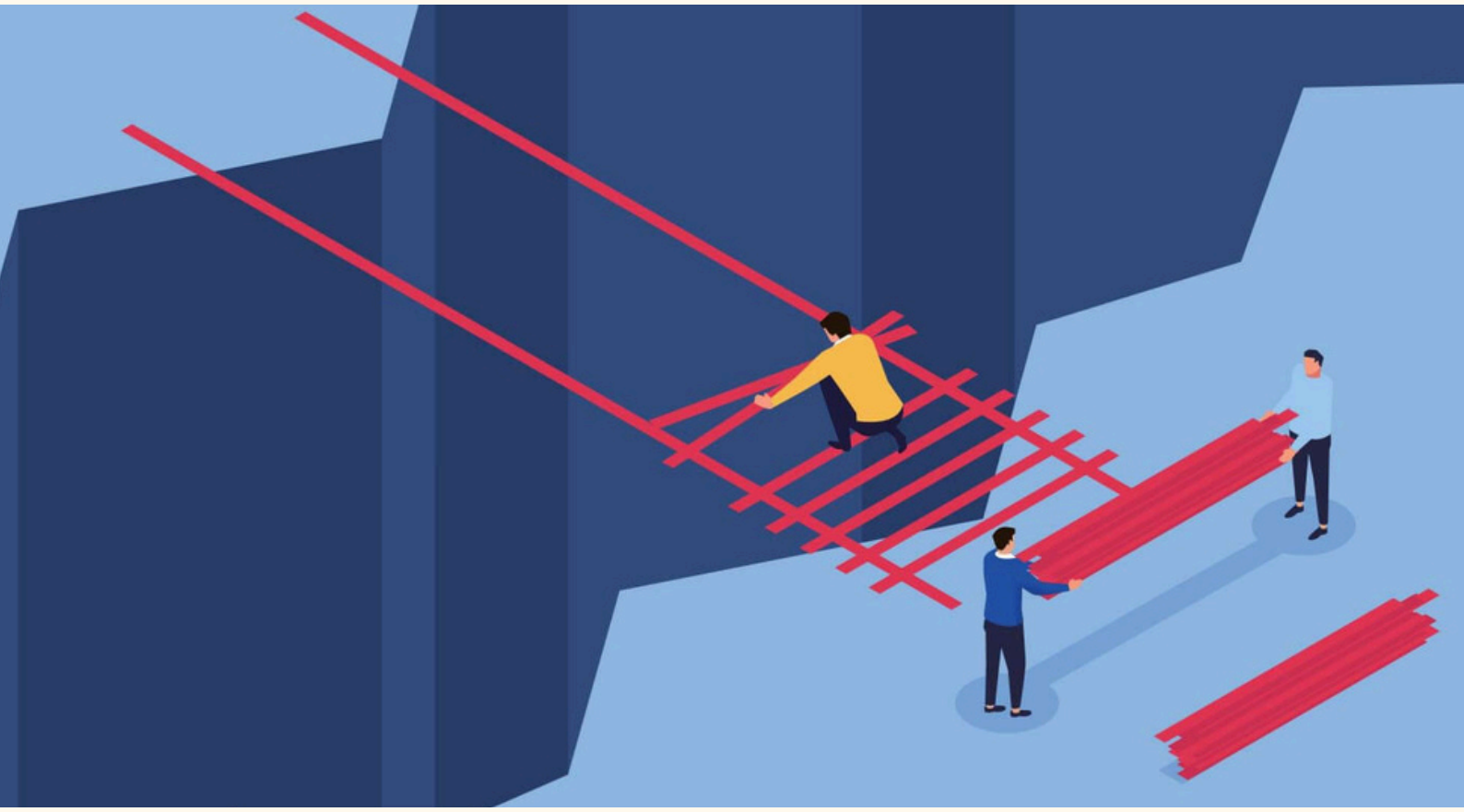


VI. SUMMARY

ABC/M serves four purposes: to improve estimates of costs and cost drivers, assess vertical and horizontal equity of health systems, identify opportunities for clinical quality improvement, and support governments and global institutes to align and optimize investments.

The ABC/M Initiative was designed to be repeatable at routine intervals to ensure findings are widely interpretable and can be compared across different countries.

Three terms that readers are encouraged to familiarize themselves with, as they will be repeated throughout this manual, are: time-driven activity-based costing, capacity cost rate, and process maps.

The processes associated with implementation of TDABC are: develop your scope of work, define your sampling plan, mobilize for stakeholder engagement, implement TDABC, and interpret results and policy implications.

CHAPTER 3: INTERPRETING RESULTS AND UNDERSTANDING POLICY IMPLICATIONS

WHAT'S IN CHAPTER 3

Chapter 3 discusses three vantage points for viewing the output of data collection. These vantage points are relevant for financial planning (e.g., understand the cost of care delivery), strengthening care delivery (e.g., design and quality of care), and considering questions of distributive justice (e.g., horizontal and vertical equity of care).

I. INTRODUCTION

In this Chapter, we will discuss more detailed steps for interrogating ABC/M data to draw out practical applications and inform policy decisions.

Specifically, we will cover three vantage points for viewing ABC/M data:

i) Understanding costs and cost drivers
ii) Enhancing clinical workflows and care delivery
iii) Assessing horizontal and vertical equity

Let's discuss each in turn, and you can also watch THIS video to learn more from Professor Robert Kaplan.

II. UNDERSTANDING COSTS AND COST DRIVERS

Let's begin with a couple of definitions. Costs pertain to the amount of money required to be spent to assure population coverage for various health interventions, such as prevention of mother-to-child transmission or antiretroviral therapy.

Meanwhile, cost drivers are factors that significantly influence costs or make up a large percentage of costs—such as time spent by clinical personnel on processes, or the type and quantity of resources assigned to a process.

It is important to understand costs and cost drivers for at least three reasons:

1. Budget Planning

Agencies responsible for funding services need to plan their budgets accurately. Once the costs of delivering services at an individual level (e.g., the annualized cost of providing ART to a patient) are understood, we can estimate future resource needs. We can also model the cost associated with enhancing the quality of care and plan the budget accordingly.

2. Sustainability

Healthcare systems must be solvent and financially sustainable over the long run. As the model of healthcare financing evolves (in particular, as international sources of funding such as PEPFAR and the Global Fund scale down investments), Ministries of Health and Ministries of Finance must consider which costs can be internally managed and sustained over time, thereby mitigating the risk of financial instability.

As an example, the Ministry of Health may need to understand the full cost of ART (including commodity costs, personnel costs, above-site costs, etc.) so that they can budget for a program which might include only limited support from the Global Fund or PEPFAR.

3. System Redesign

ABC/M can help to identify those costs which represent a large proportion of overall costs. For example, HIV treatment services may be driven largely by the cost of antiretrovirals. Policymakers may therefore conclude that any attempt at efficiencies may require a particularly strong focus on those items that most influence the unit costs of service delivery.

For example, if the cost of medications is a substantial component of costs, health systems may be well-served by strengthening supply chain and storage systems to reduce the likelihood of medications expiring, going bad, being miscounted, or stolen.

Policymakers may also wish to question why other costs are not more significant and may therefore reallocate additional resources on items which are currently not being prioritized. As an example, policymakers might note that few resources are being spent on community testing services and may want to increase budgets if they believe that these services should receive greater prioritization to achieve better outcomes.

From an analytic perspective, costs and cost drivers may be inspected from several vantage points:

Cost Categories

At the facility level, ABC/M (through the TDABC approach) catalogs costs according to five components: personnel (labor), equipment, clinical space, consumables, and indirect costs. These can also be further subdivided. For example, personnel can be divided into primary health providers (e.g., physicians), support staff (e.g., nurses), technical personnel (e.g., laboratory technicians), and administrative personnel (e.g., receptionists).

ABC/M allows for cost categories to be inspected individually, aggregating, or disaggregating personnel costs to achieve the needed analysis.

Service Types

Cost components may also be assigned according to individual clinical services. In HIV, for example, services analyzed may include antiretroviral therapy, voluntary medical male circumcision, prevention of mother-to-child transmission, etc. Depending on the comparative costs and benefits of each intervention, policymakers may fast track expansion of some clinical services rather than others.

As an example, if a country has achieved full coverage in terms of their VMMC program but remains low in terms of viral load suppression for those infected with HIV, policymakers may wish to direct additional resources to a domain such as viral load testing.

Patient Types

Past research suggests that a small minority of patients account for a disproportionate amount of healthcare costs—typically, those who have high severity illnesses (Pearl & Madvig, 2020). Because TDABC computes costs for each patient, it permits analysts to investigate which types of patients (e.g., according to demographic categories) are receiving the most resources and, as a result, producing the largest costs to the system.

Theoretically, clients who incurred high costs might be able to avert some of these costs if they were identified and treated earlier.

Service Domain

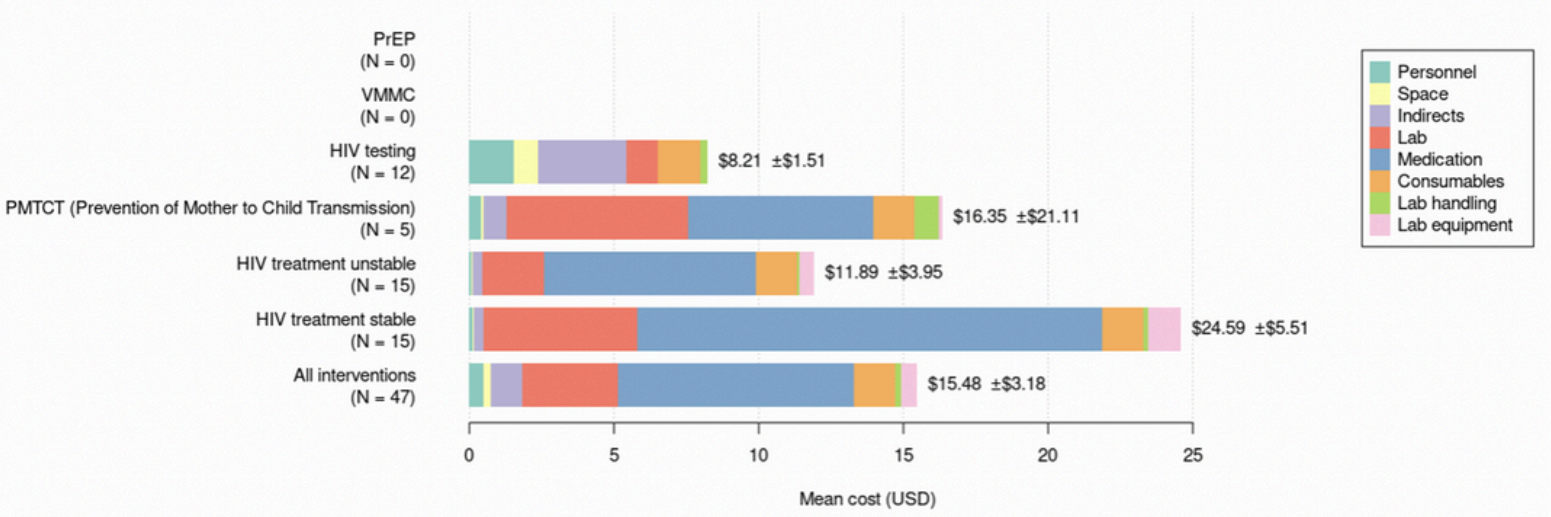
ABC/M quantifies facility costs (using TDABC), community-based costs and above-facility costs (often called "above-site costs", such as program management and supply chain). Theoretically, extensive program management costs (e.g., costs for overheads of international NGOs) may imply that investments remain at the above-site level, rather than reaching clients at facilities and in their communities.

Policymakers may therefore determine that, as programs rely less on international sources of funding, the costs of international program management may decline. Policymakers may alternatively need to increase some above-site costs, as supply chain and commodity costs may increase with the reduced presence of international purchasing.

In summary, by understanding costs, cost categories, and cost drivers from the vantage point of cost categories, service type, client type, and service domain, policymakers can develop an empirical framework for budget planning, evaluating financial sustainability, and considering options for system redesign. Based on the configuration of ABC/M data outlined in the DMAP, data should be collapsible to generate cost estimates for each of these three vantage points.

To aid review of costs and cost drivers, the ABC/M Initiative has offered an interactive, online user interface. An example from Tanzania can be found HERE. The third tab of this interface, labeled “Cost Detail for Each Intervention” is particularly illustrative. Below, you can see a representation of costs and cost drivers (by cost category) at an example dispensary. We see, for instance, that medications—a consumable—is the leading cost driver for most services.

Figure 3. Costs and Cost Categories of HIV Services at an Example Dispensary, Tanzania



Notes: Stacked bars for PrEP and VMMC are absent because there were 0 observations of these services at this example dispensary. +/- values represent standard deviations from mean cost values. Medications (blue) are separated from other types of consumables (orange). These numbers represent cost per visit – a higher cost per visit does not always mean a higher annual cost. Patients with “HIV treatment unstable" typically have 12 visits per year, while patients with "HIV treatment stable" typically have only 4 visits per year and thus receive more medication doses per visit."

III. ENHANCING CLINICAL WORKFLOWS AND CARE DELIVERY

Results from ABC/M also provide ample opportunity to assess clinical workflows and quality of care delivery for individual services. This opportunity may be viewed most clearly through the lens of process maps: the aggregate, visual representation of clinical care workflows based on the direct observation of clients receiving services.

Process maps provide information on:

i) which activities are performed during clinical care and in what order;
ii) who performs these activities and for how long;
iii) what clinical spaces are occupied, and equipment is used;
iv) how much time is spent on each step; and
v) which consumables are expended.

Clinical and administrative leaders can review process maps to ask the following questions on quality of care:

Process Map Review | Quality of Care Questions

Human Resources

Are the expected personnel performing each activity? If not, why?
Are there opportunities to improve efficiency by task-downshifting certain activities to lower-level providers?

Service Intensity

Are providers spending the expected amount of time with patients?
If providers are spending less time with patients than expected, why?

Activities

Are expected activities being performed? Always, or only sometimes?
If expected activities are being skipped, why?

Resources

Are patients receiving the medications we expect them to receive?
Are patients receiving the diagnostic tests we would expect?
Is proper equipment being used during care?

Protocol Compliance

Does the overall flow of care align with expectations?
If there are departures from expectations, what is driving this?

Note that many of the "why" questions raised above are not readily answerable from the quantitative data aggregated through TDABC. For example, in one facility, viral load measurement may be intentionally skipped as a function of differentiated care—in which clients with a stable HIV status only have viral load measured once per year.

By contrast, in another facility which hasn't established differentiated care, skipping viral load measurement could be an accidental omission indicating poor adherence to clinical protocols. TDABC provides the inputs necessary for clinical and administrative leaders to detect anomalies and then probe further.

Regarding overall protocol compliance, it is also possible that individual facilities have not developed normative guidelines for what should happen over the course of care for a service like PMTCT.

In these instances, process maps offer a starting point for clinical and administrative leaders to develop normative guidelines and then enforce them. In other instances, facilities may have developed an innovative approach that indicates superior performance, which could be validated and shared with other facilities in the form of process maps.

ABC/M may also help identify unutilized capacity within a facility: for example, a piece of expensive equipment like a CT scanner may be left idle much of the day, or a specialty provider such as a cardiologist may have consistently low client volume and could see more clients if available. In these instances, clinical leaders and administrators may consider strategies to identify and attract additional clients who would benefit from underutilized resources.

Depending on the scope of ABC/M operations, insights on clinical workflows and care delivery may extend from individual facilities to services provided across facilities, the overarching health system, and financing mechanisms that extend beyond the health system. Let's consider each:

1. Health care services

At this level, we can look at the entire treatment process and optimize across facilities. We can assess which care processes should be performed at a primary care facility, which at a hospital, and which in the community. Optimizing service delivery over the complete cycle of care should reduce total costs by having care done at the right place, at the right time, and with the right personnel.

It could also reduce the cost incurred by clients—by having more care delivered at the community level and less care delivered at larger facilities that require significant travel time.

As an example, the health system administrator is trying to discern whether expanded coverage for PMTCT is possible by training peer mothers. She examines the extent to which human resources are a major cost driver of PMTCT in the region and discerns that–to meaningfully shape coverage for PMTCT–consumables are a much larger cost driver and would need to be accounted for in the scale-up of services, with human resources for health being less of a bottleneck.

2. Health systems

At this level, resource capacity and health care budgets are determined. Conducting ABC/M across multiple health conditions should enable administrators of a health system to forecast the quantity of medical conditions it expects to treat.

Then, relying on process maps, it can forecast the quantity of resources—e.g., personnel of each type, equipment, drugs, supplies, tests, and the like—that need to be supplied to meet those needs. In short, improved budget planning should translate to improved client outcomes throughout the health system

As an example, an officer at the Ministry of Health wants to project the cost of scaling towards universal coverage for VMMC and believes that the most cost-effective way to do this would be to train a lower-level cadre of health workers to perform most activities.

The process map looks similar, except for a different provider type and underlying capacity cost rate.
The officer computes estimated coverage if the existing budget were only 10% larger for this. She determines that, through task-shifting, coverage could be expanded from 30% to 55% of the population, with only a 10% increase in budget.

3. International support

At this level, funders and donors ranging from the local government to multilateral institutions should have a clearer picture of the impact from their funding, either for individual diseases or for capacity building of a nation's health system. Directly observing the ways that investments shape population health outcomes may motivate further support.

IV. ASSESSING HORIZONTAL AND VERTICAL EQUITY

In the context of healthcare delivery, horizontal equity refers to the notion that people with equal need should receive equal treatment, regardless of other factors (Raine et al., 2016). For instance, two clients seeking PrEP should receive the same treatment regardless of their sexual orientation, race, ethnicity, or age.

By contrast, vertical equity refers to the notion that people with differing levels of need should receive differing levels of resources, regardless of other factors. For example, someone with an unsuppressed viral load level should be given additional attention by a health provider compared to someone with a suppressed viral load.

Evaluating horizontal and vertical equity is important for three, related reasons:

1. Fairness

By evaluating equity, health system administrators can ensure resources are distributed based on clients' needs. This includes prioritizing its most vulnerable and sickest members.

2. Efficiency

Allocating more resources to those with greater needs also ensures systems are efficient. As an example, if clients are not receiving enough counseling, or are not receiving an adequate number of laboratory tests, then resources would need to be reallocated to improve outcomes for the clients.

3. Trust

When leaders consider equity, they are demonstrating that the health system is responsive to the needs of all citizens, not just a privileged class. This can foster trust.

TDABC is unique among approaches to cost accounting because each client generates their own cost to the health system, and we record the resources and time expended on behalf of each client.

As a result, we can examine horizontal and vertical equity at the client level and the facility level. Let's discuss each:

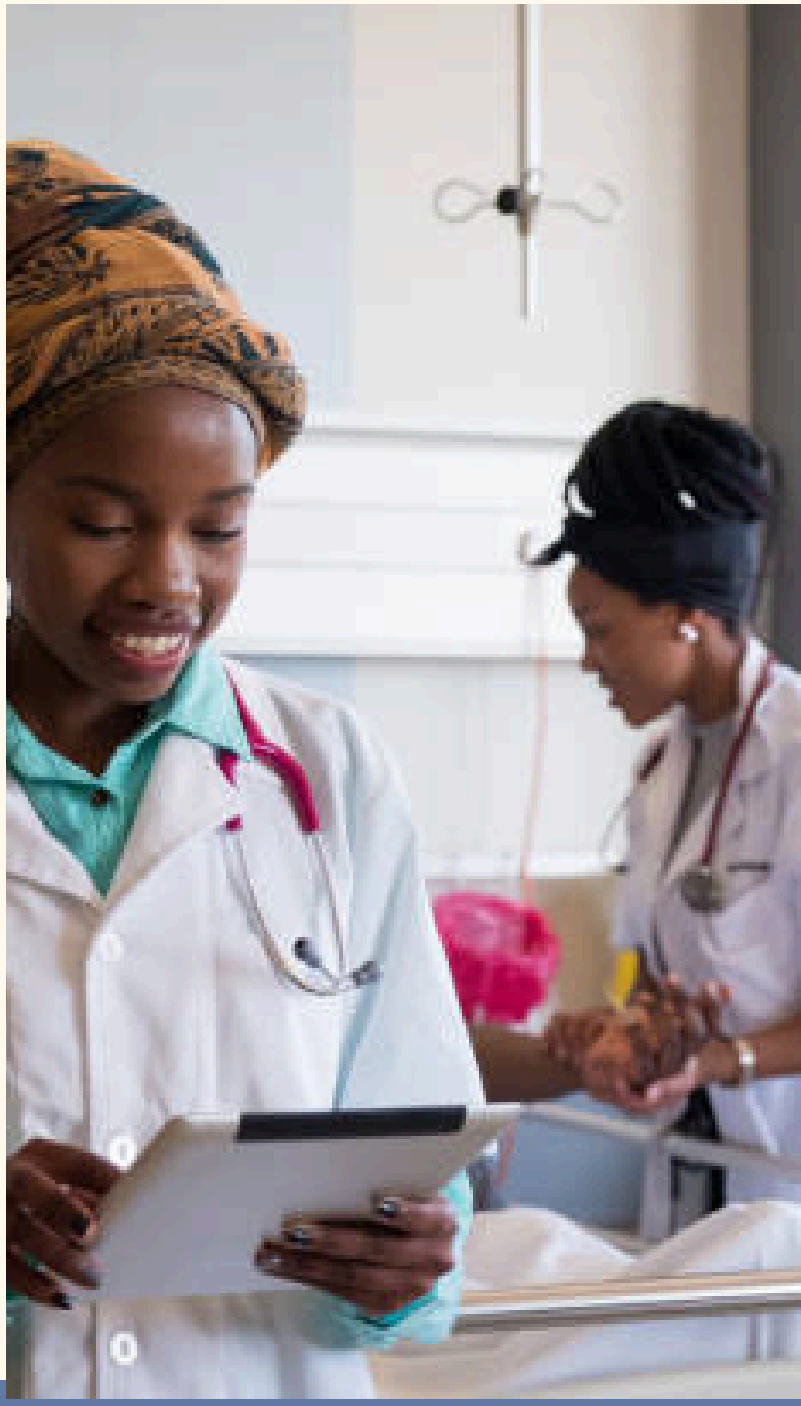
Client-Level

At the client-level, we can compare client characteristics to examine whether some types of clients are receiving more or fewer resources than other types of clients. In some instances, we might expect that certain types of clients receive more resources (e.g., unstable clients would typically receive more resources on an annual basis than stable clients)—this would be an indication of vertical equity.

Some clients may be associated with receiving more resources: for example, that people paying with private insurance receive extra services or shorter wait times.

In all instances, we can analyze the sample of clients to answer these questions—looking at total cost of care, time spent with providers, and wait times as outcome variables and individual level characteristics as predictor variables.

Individual level characteristics that can be investigated through TDABC include: client sex, client age, client race/ethnicity, client income, the type of health insurance the client has, and whether the client has reported comorbidities.



Facility-Level

At the facility level, we can compare facility characteristics to examine whether some types of facilities receive more or fewer resources. Again, in some instances, we might expect that certain facilities offer greater resources. For example, we might expect that secondary hospitals—where complex, very sick clients are seen—are spending more time with clients and providing more highly-skilled resources compared to primary care facilities.

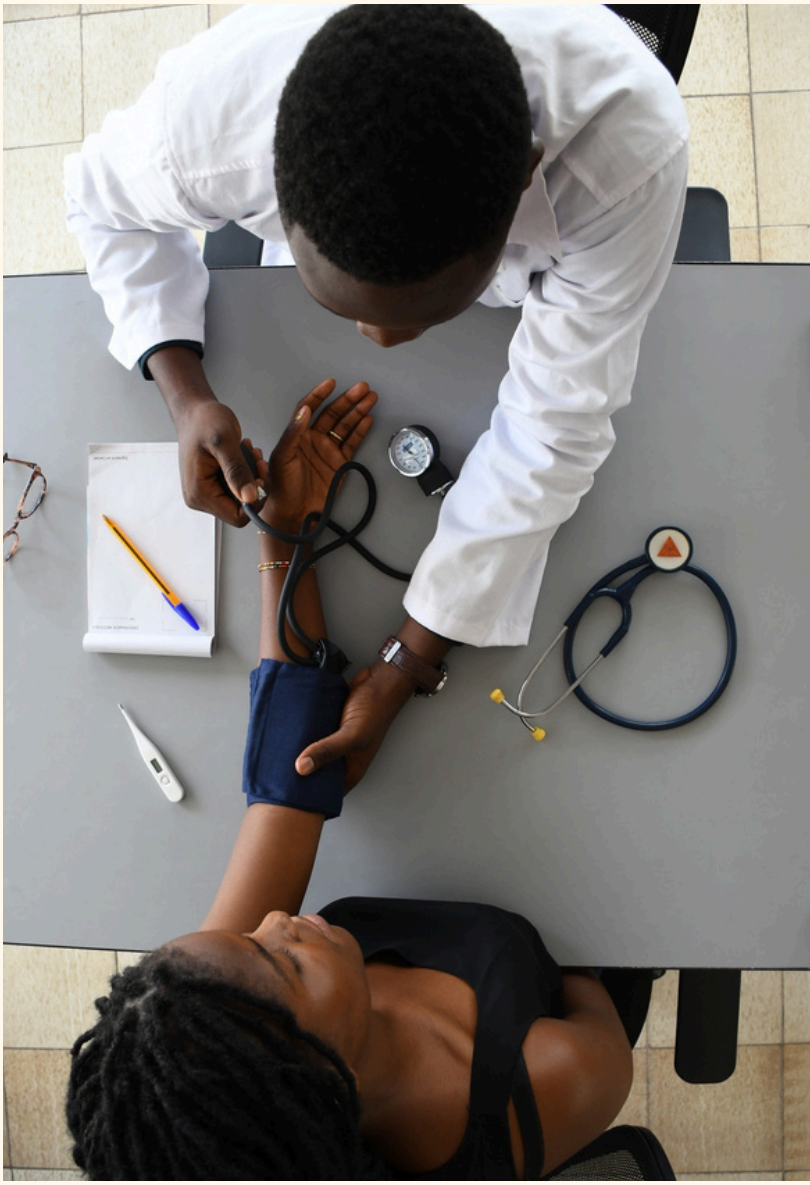
If we observe such differences, this may be an indication of vertical equity: those who are worse off are being prioritized. On the other hand, there may be other instances in which we expect that similar facilities should be similarly resourced. For example, if urban primary health centers consistently have more staffing and shorter wait times than rural primary health centers, this would indicate a problem with horizontal equity.

As with individual characteristics, facility-level characteristics can be examined through regression analysis—looking at total cost of care, time spent with providers, and wait times as outcome variables and facility-level characteristics as predictor variables.

Facility-level characteristics that can be investigated through TDABC include: facility level of care (e.g., primary, secondary, tertiary), facility rurality (e.g., urban, rural), facility type (e.g., public, private), and facility funding (e.g., supported by PEPFAR, not supported by PEPFAR).

V. SUMMARIZING POLICY IMPLICATIONS

By combining the three vantage points described above, it should be possible to:



i) understand costs, cost categories, and cost drivers
ii) enhance clinical workflows and care delivery, and
iii) assess horizontal and vertical equity
—we can now begin to see how policymakers can leverage the ABC/M Initiative.

Through the unique and detailed information offered by ABC/M, leaders should be in a strong position to discuss budgetary planning, propose standardized protocols to enhance quality of care, and identify strategies to address inequities. A further discussion of the many uses of ABC/M is available in THIS video.

Once policies are enacted, routine implementation of ABC/M—for example, at annual or bi-annual intervals—should allow lawmakers to determine whether policies are having intended effects and to diagnose ongoing problems. This will be discussed further in the next chapter.

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VII. SUMMARY

Three vantage points for interpreting ABC/M results and considering policy implications are: (i) understanding costs, cost categories, and cost drivers, (ii) enhancing clinical workflows and care delivery, and (iii) assessing vertical and horizontal equity.

In terms of costs, cost categories, and cost drivers: ABC/M can be used to inform budget planning, ensure sustainability of financing, and guide system design. Costs and their drivers can be inspected from the vantage point of cost categories, service types, and patient types.

In terms of enhancing clinical workflows and care delivery: process maps can provide visual representations of clinical care workflows, enabling policymakers to evaluate appropriate (or inappropriate) usage of personnel, activities, spaces, and consumables. Quality of care can also be assessed at the level of a service or health system.

In terms of assessing vertical and horizontal equity: TDABC allows for investigation of both types of equity—at the individual patient level and at the facility level. It does so by analyzing the relationships between patient/facility characteristics and observed outcomes like amount of spending, resource consumption, provider time, and wait time.

CHAPTER 4: INSTITUTIONALIZING ABC/M

WHAT'S IN CHAPTER 4

Chapter 4 describes the process, purpose, difficulties, and strategies associated with institutionalizing ABC/M as a management system, and how to conceptualize sustainability (Pluye et al., 2004). We speculate that for the full potential of ABC/M to be realized, health systems will need to implement data collection on a routine basis, such as annually or bi-annually.

I. INTRODUCTION

Much of this Policymaker's Guide has been dedicated to discussing the benefits and applications of ABC/M, as well as its corollaries for inspecting community and above-site costs. However, the "M" in ABC/M is meant to express the importance of tracking costs and resource allocation for long-term management of systems performance and budget planning.

In this Chapter, we describe the process, purpose, difficulties, and strategies associated with institutionalizing ABC/M as a management system, and how to conceptualize sustainability (Pluye et al., 2004). We speculate that for the full potential of ABC/M to be realized, health systems will need to implement data collection on a routine basis, such as annually or bi-annually. Moreover, to ensure ease of implementation as well as comparability from one cycle of data collection to the next, the ABC/M apparatus will need to be securely embedded within government agencies that are mandated to sustain operations.

II. THE PROCESS OF INSTITUTIONALIZATION

Institutionalizing ABC/M helps to ensure long-term sustainability that is crucial for its success.

Institutionalization can be thought of as a five-step process:

1. Secure an Active Government Commitment

The host country's government should first secure a commitment from stakeholder institutions (e.g., Ministry of Finance, Ministry of Health) to invest time and resources into ABC/M—based on a recognition that the initiative aligns with national health goals such as universal health coverage and social health insurance. In many countries, it was determined that the formation of a steering committee would serve the purpose of assuring active government commitment.

2. Integrate with Existing Systems

Policymakers should seek to integrate ABC/M within existing health information systems to ensure a seamless flow of data for client-level cost accounting. Ideally, ABC/M would be housed within an agency that benefits from information sharing between ABC/M and other decision support tools, such as national health accounts and HIV surveillance systems.

3. Invest in Data Management

Establish a robust data collection and management system to routinize ABC/M, depending on feasibility and execution of Step 2. This includes standardized data gathering tools and training curricula, an architecture for storing and analyzing TDABC data, and mechanisms for ongoing feedback to strengthen data quality over time, with particular attention to data accuracy and reliability. The data management system should adhere to privacy standards and security protocols and be equipped to process client-level information while safeguarding client identities.

4. Ensure Local Collaboration Institutions and Capacity Building

Support specialized training and capacity building programs that develop the necessary expertise to deploy ABC/M, including those at academic institutions that may serve as Local Collaborating Institutions (LCI). LCIs have been employed in all countries where ABC/M has been conducted, collecting and analyzing the TDABC data. The LCI will also independently lead, with the necessary financial investment, future ABC/M processes for the countries themselves.

The achievement of this local leadership will require additional capacity building beyond that achieved during the initial ABC/M applications. In addition, an ongoing local Steering Committee will continue to facilitate oversight and knowledge sharing. Policymakers and clinical leaders at facilities participating in ABC/M should be briefed on the mission of ABC/M and results of data collection, as well as participate in discussions about how to apply ABC/M knowledge to their practice. For example, process maps generated through TDABC should convey the extent to which existing workflows align with best practices and standardized protocols.

5. Promote Public Awareness

Launch public awareness campaigns to educate citizens about the benefits of ABC/M, including the government's efforts to improve quality of care, generate cost-savings, and address equity in access to resources. Leaders of ABC/M could also consider forums to solicit public opinion and feedback on the initiative, as well as explicitly seeking input from participants, such as clients and providers shadowed during TDABC, to learn about ways to make participation less burdensome.

6. Ensure Data Are Used for Developing Budgets and Allocating Resources

To ensure data collected through ABC/M are effectively utilized, data could be integrated into routine processes for developing budgets both at institutional and government levels. ABC/M information could aid decision-makers in their efforts to prioritize investments that improve quality of care, efficiency, and equity.

Additionally, establishing regularly scheduled meetings to review budgets and to assure they are aligned with ABC/M findings would be critical for ensuring there is alignment. These meetings might be scheduled prior to national budget cycles or alternatively they might be scheduled to coincide with Global Fund applications or PEPFAR Country Operational Plans.

Ultimately, the integration of ABC/M data into budget development processes should strengthen the link between financial decisions and the delivery of high-quality, cost-effective healthcare services.

III. BENEFITS OF INSTITUTIONALIZATION

1. Promotion of long-term sustainabillty

Institutionalization of ABC/M serves several purposes. As described above, the most direct advantage is the promotion of long-term sustainability. Without consistent government commitment, funding, routinized data systems, and oversight, ABC/M risks becoming a one-off or sporadic endeavor.

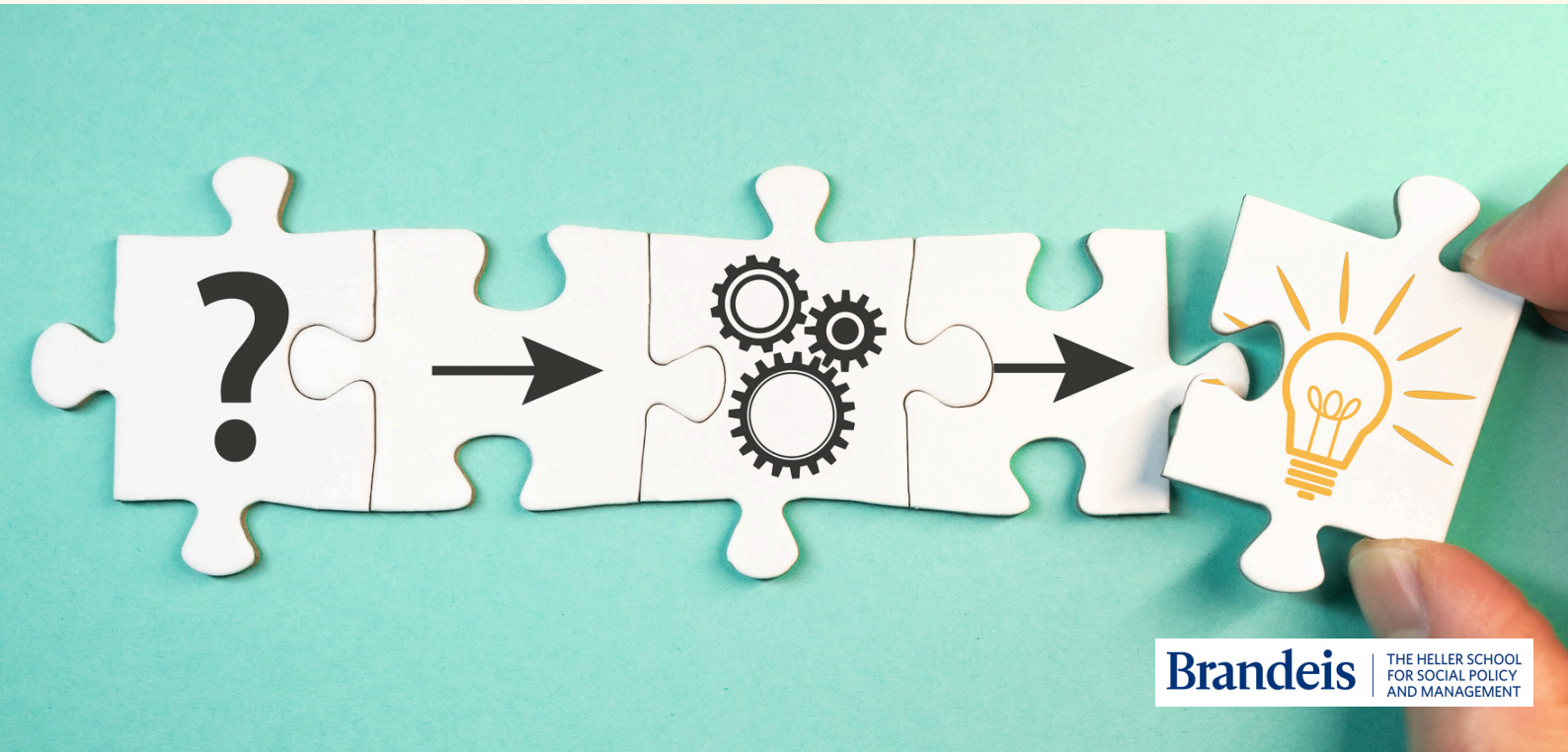
2. Data-driven decision-making

Said another way, data-driven decision-making depends on stable, high-quality management systems. Without data gathering and analysis at routine intervals, health systems lack the necessary inputs to perform sophisticated policy evaluation and optimize resource allocation—because these evaluation and optimization are longitudinal: they require a baseline, an intervention, and re-assessment.

3. Convening power to foster global collaboration

Secondarily, institutionalization should strengthen convening power to foster global collaboration. A large array of international stakeholders, ranging from UNAIDS to the Global Fund to PEPFAR, are eager to align investments and to promote greater efficiency and equity in service delivery.

By institutionalizing ABC/M, you are generating high-quality cost and resource information that fosters global collaboration and information exchange. With the insights from your endeavor, you can bring together other countries and institutions to share experience and insights, and you can set the table for discussions about best practices, innovations in care delivery, and future investments.



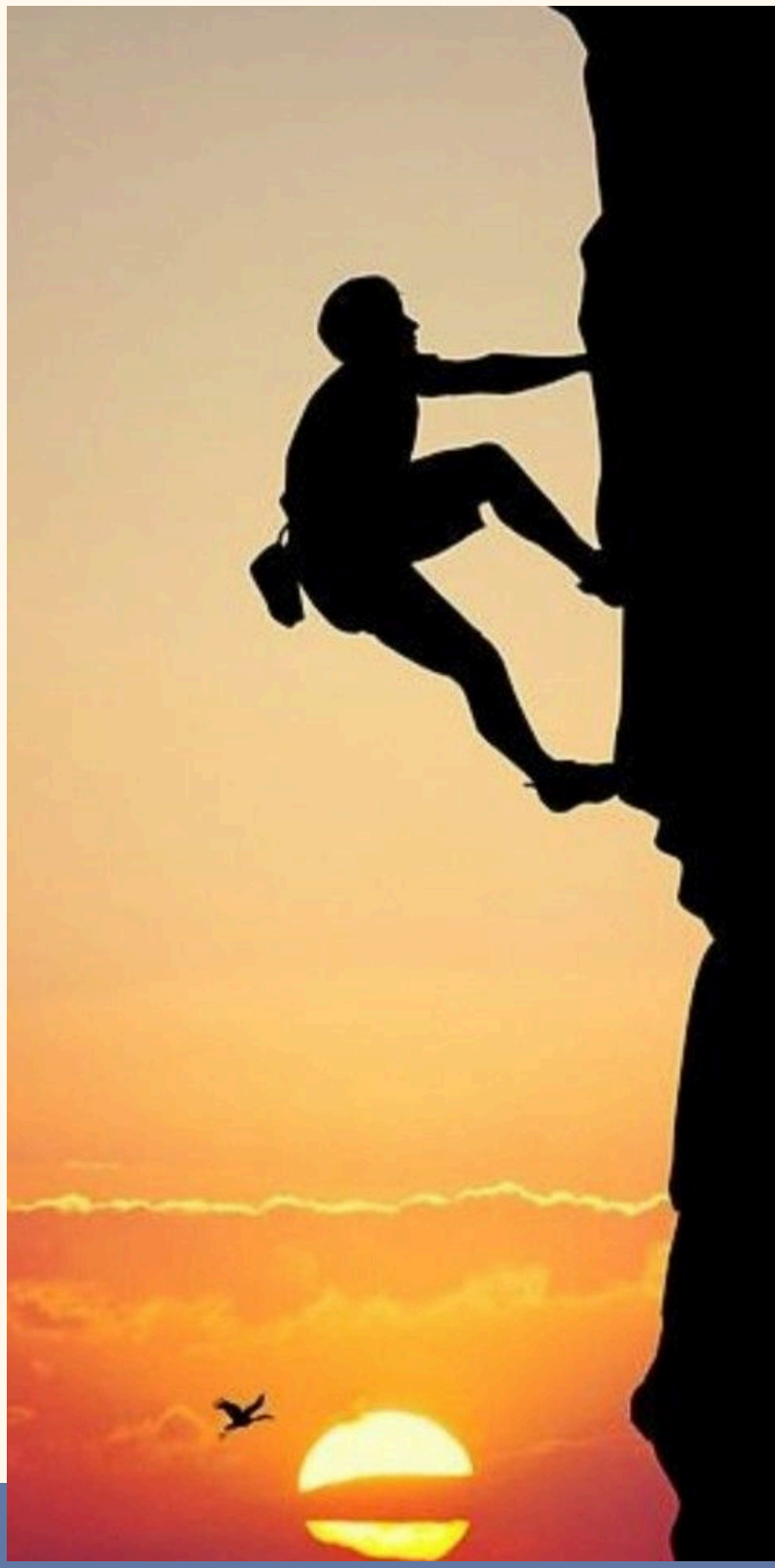
IV. ESTABLISHING A FIVE-YEAR TIMELINE

Practically speaking, it may be helpful to devise a strategic plan to institutionalize ABC/M. What this looks like is bound to vary from one setting to the next. Nevertheless, we expect that the principal components of such a strategic plan are likely to be similar. Therefore, below we have offered a template example for a five-year timeline. Depending on resourcing and commitment, this timeline may be shorter or longer.

ABC/M PARTICIPATION YEAR	KEY ACTIVITIES
Year 1: Launching ABC/M	• Establish local steering committee • Develop protocols and training materials • Execute ABC/M in collaboration with implementation partner(s)
Year 2: Demonstrating the ABC/M Value Proposition	• Analyze results from ABC/M (see Ch.8) • Convene stakeholders to discuss findings and policy implications
Year 3: Securing a Long-Term Commitment	• Develop a public sector financing strategy for embedding ABC/M • Establish commitments for financing over 5-to-10-year horizon • Develop protocols and training materials
Year 4: Strengthening Systems	• Re-execute ABC/M in collaboration with implementation partner(s) • Determine agencies responsible for long-term management of ABC/M • Begin devising a comprehensive ABC/M data management system
Year 5: Achieving Equilibrium	• Analyze new ABC/M results (see Ch.8) • Convene stakeholders to discuss findings and policy implications • Formalize ABC/M datamanagement system • Finalize institutionalization of ABC/M

V. CONSIDERING CHALLENGES WITH INSTITUTIONALIZATION

Institutionalization is a formidable endeavor, not least because it is contingent on a long-term investment of financial and human resources. Given this, it may be helpful to anticipate potential obstacles and ways of overcoming these obstacles.



Below we offer four to consider:

1. Lack of Government Commitment

Some actors may not understand or see significant value in the initiative, or else are unwilling to allocate sufficient resources to support ongoing implementation.

Response: Perform a stakeholder mapping exercise to identify actors who may be more open to advocacy and collaboration. Demonstrate, through the first-round implementation of ABC/M, the value proposition of the initiative: to understand costs and cost drivers, enhance clinical workflows, and improve equity.

Continue to review the various ways in which ABC/M has been used for decision-making by policymakers in the initial countries where the exercise was conducted.

2. Pushback from Health System Administrators

Administrators may be reluctant to adopt new methodologies like TDABC, due to the complexities and the potential to introduce additional workload.

Response: Provide training and support to these individuals—to build their capacity, confidence, and resources to use TDABC. Highlight to administrators how ABC/M will, ultimately, allow the government to finetune investments in their health facilities and for clinical leaders to improve quality of care.

3. Resource Constraints

Limited financial and human resources may hinder the ability to institutionalize ABC/M.

Response: Consider revising the timeline for institutionalization and the scope of data collection and analysis activities—to account for constraints. Check to see if collaborations and cost-sharing arrangements are available with international organizations, donors, and NGOs.

4. Operational Challenges

Technological issues may hamper data collection; consistency in data collection across regions and over time may be difficult; high turnover and changes in workforce may disrupt continuity of the initiative.

Response: These may need to be addressed one at a time, but the first round of data collection should provide insights. For example, technological issues may require devising data collection methods that do not depend on internet connectivity. To improve consistency, routine audits, guidelines, and protocols could be distributed.

As a rule of thumb, we recommend you consider the array of stakeholders involved in ABC/M as well as ways to effectively engage these individuals (Concannon et al., 2012). Moreover, as you encounter challenges, please consider members of ABC/M stakeholder agencies —such as UNAIDS, USAID, PEPFAR, Global Fund, and others—as resources available to support you. Individuals in each of these agencies are enthusiastic to see you succeed and are available for consultation.

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VI. USE-CASE VIGNETTES

Lastly, we have compiled vignettes, demonstrating how TDABC has been used in various settings to enhance health care. These are found in Appendix A.

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VIII. SUMMARY

Institutionalizing ABC/M is important from a sustainability perspective—including for long-term management, performance evaluation, and budget planning of HIV service delivery.

Institutionalization can be described as a five-step process: (I) securing active government commitment, (II) integrating ABC/M with existing systems, (III) investing in data management, (IV) ensuring local collaboration and capacity building, and (V) promoting public awareness.

There are three major benefits of institutionalizing ABC/M: promoting long-term sustainability, supporting data-driven decision-making, and generating convening power for global collaboration of shared objectives—including to combat the HIV/AIDS epidemic.

To move towards institutionalization, those leading the ABC/M initiative may consider developing a three-year or five-year timeline, corresponding to the five-step institutionalization process. Bringing about this vision is likely to require anticipating and responding to potential obstacles along the way.

LIST OF FIGURES

GLOSSARY OF TERMS

ABC/M = Activity-based costing and management
ART = Antiretroviral therapy
DMAP = Data Management and Analysis Plan
HIV = Human immunodeficiency virus
KII = Key Informant Interviews
GHSD = Global Health Security Division
PEPFAR = President's Emergency Plan for AIDS Relief
PHIA = Population-based HIV Impact Assessment
PMTCT = Prevention of Mother-to-Child Transmission
PrEP = Pre-Exposure Prophylaxis Treatment
TDABC = Time-Driven Activity-Based Costing
UNAIDS = Joint United Nations Program on HIV/AIDS
USAID = United States Agency for International Development
VMMC = Voluntary medical male circumcision

APPENDIX

Appendix A: Vignette | Time-Driven Activity Based Costing to Enhance Health Care Delivery in Haiti

In 2014-2016, Partners In Health and Zanmi Lasante collaborated on a pioneering initiative to implement time-driven activity-based costing (TDABC) at five community health facilities ranging from a primary health center to a district level hospital.

The overarching goal was to shed light on the dynamics of resource utilization and costs associated with patient care, with the ultimate goal of informing strategic decisions to enhance the effectiveness and efficiency of health service delivery.

We focused on a cross-section of outpatient services, sampling over a thousand patients for a wide range of diagnoses and services.
The selection of TDABC for this work stemmed in part from a recognition that traditional costing approaches would be ill-suited to address the nuanced within Haiti's health system.

By adopting a patient-centric approach that mapped the health system and allocation of resources, TDABC provided detailed insights into the actual costs incurred at each step of the care cycle, thereby enabling stakeholders to identify inefficiencies, streamline processes, and allocate resources more equitably and effectively.

The potential impact of this initiative was multifaceted. First, by illuminating variations in costs across different facilities and patient populations, the study offered a foundation for evidence-based decision-making at both the institutional and policy levels.

The data allowed administrators at the facility and centrally to prioritize investments, optimize staffing levels, and tailor interventions to address specific needs within their catchment areas, based on a deliberative process involving multiple stakeholders.

Moreover, by identifying opportunities for process improvements, such as reducing patient wait times and pinpointing stockouts in key equipment and medications, the analysis laid groundwork for enhancing patient outcomes and overall health system performance. For example, supply chain issues–flagged as a result of observing failures to dispense folic acid to pregnant women–involved coordination of logistics specialists, clinicians, and administrators in Boston (PIH headquarters) and Haiti.

Ultimately, several key lessons were learned from the Haiti project. First, the study underscored the feasibility of conducting rigorous costing analyses in resource-constrained settings, provided that adequate training, resources, and logistical support were provided. Second, it highlighted the importance of stakeholder engagement and collaboration in ensuring the success and sustainability of such initiatives. By involving local staff and administrators in the data collection and analysis process, the study fostered a sense of ownership and empowerment, paving the way for continued improvements in the future.

Third, the study underscored the need for ongoing monitoring and evaluation to track the impact of interventions and ensure that resources would be allocated more optimally to achieve the desired outcomes after the initial round of TDABC. The TDABC project conducted in Haiti represented a significant step forward in understanding and addressing the complexities of health-care delivery in resource-constrained settings.

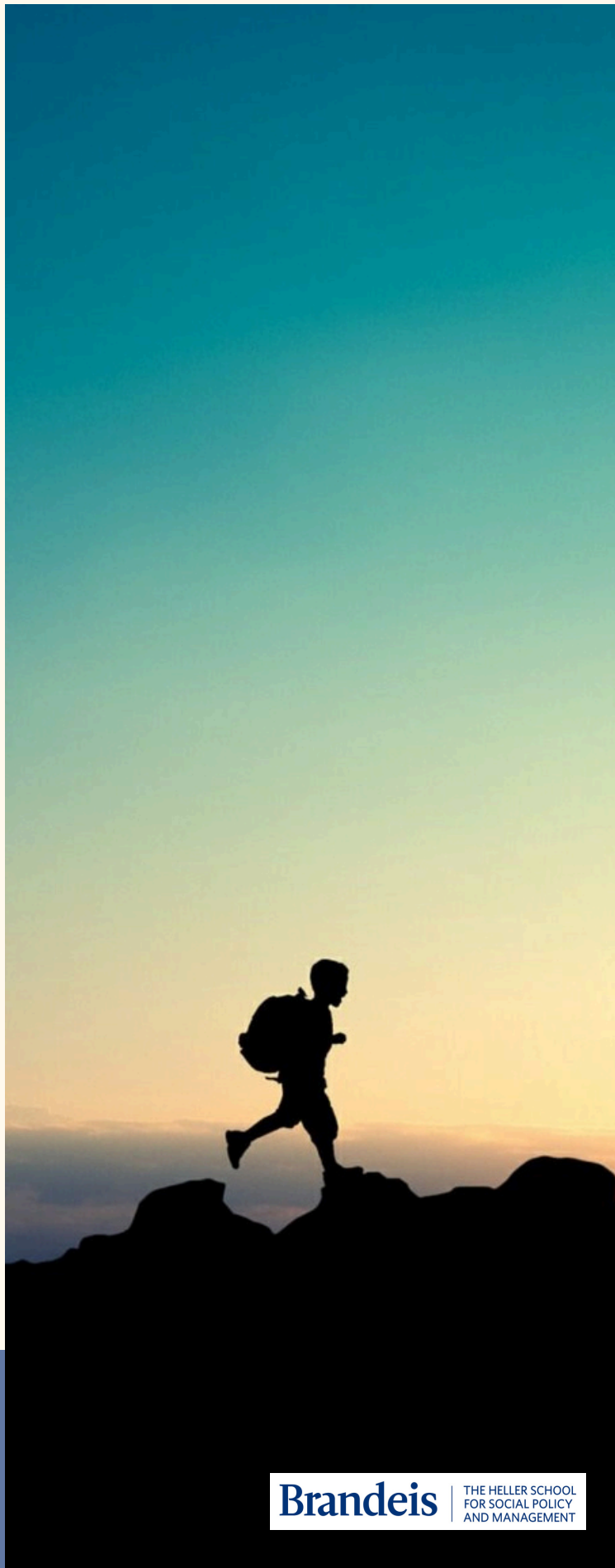
By providing a comprehensive picture of resource utilization and costs, the study offers valuable insights to inform decision-making, drive process improvements, and ultimately enhance the quality of care for vulnerable populations.
To read more about this work, you can review the following publication at Bulletin of the World Health Organization:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5791872/pdf/BLT.17.198663.pdf

Appendix B: Vignette | Burden of Costs in Seeking HIV Services in Mozambique

Out-of-pocket (OOP) health expenditures are defined as “any direct outlay by households, including gratuities and in-kind payments, to health practitioners and suppliers of pharmaceuticals, therapeutic appliances and other goods and services whose primary intent is to contribute to the restoration or enhancement of the health status of individuals or population group.” For many countries, significant OOP expenditures represent a barrier for the poor, preventing them from receiving health services.

Therefore, efforts at achieving universal health care have focused on enhancing financial protection by reducing OOP expenditures.
However, it is important to recognize that OOP expenditures do not represent the only costs and barriers faced by the poor. Clients also face indirect costs, which are defined as “non-medical costs, such as income loss, transportation, meals and accommodation paid by the patient.” These costs, like OOP expenditures, can be significant, particularly among the poorest members of society.

As an example, clients of HIV services in Mozambique were observed in a recent analysis to have minimal OOP expenditures.However, there were significant informal costs incurred by traveling to the health facility and in terms of income lost while receiving services among those seeking HIV prevention, testing and treatment services (Lee, Austral, et at., 2022).



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As this figure shows, the lowest wealth quintile (based on responses to questions regarding access to assets) had the lowest costs ($0.89 per health care visit) and the highest wealth quintile had the highest costs ($1.63 per health care visit). However, relative to household discretionary spending (spending excluding food and taxes), the poorest incurred much higher expenditures in seeking out health services (65% of monthly household discretionary income vs. only 8% in the highest wealth quintile).

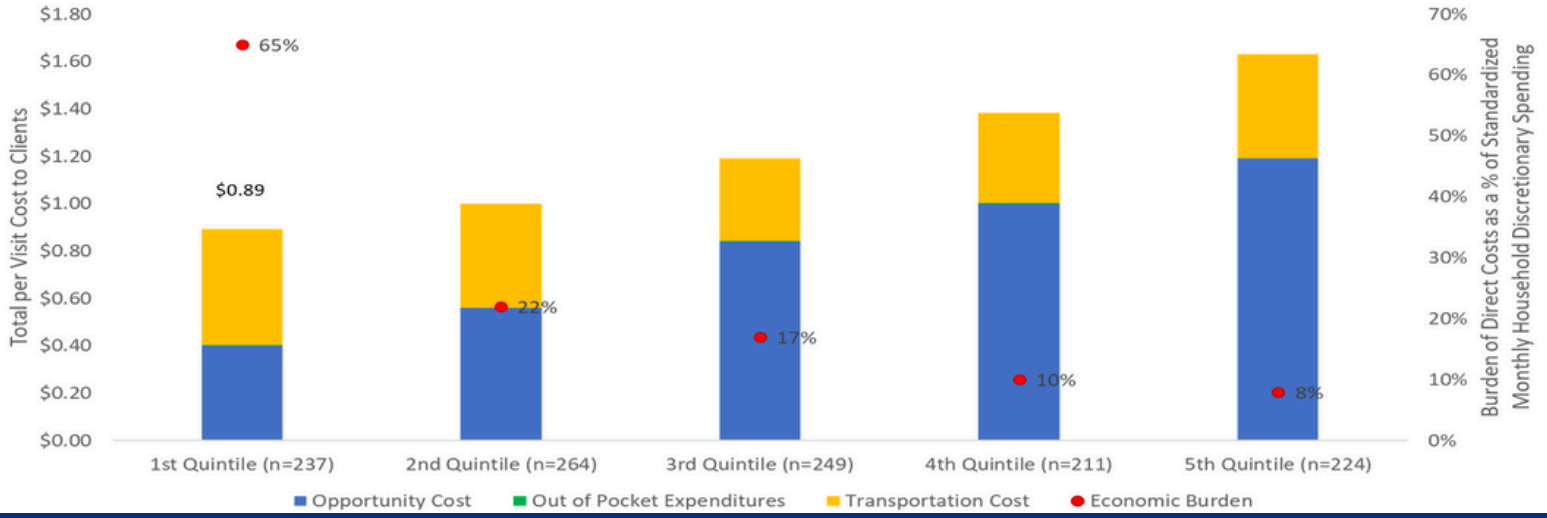
Thus, the data indicates that even with "free" (from the perspective of the clients) services, transport and income loss both represent barriers to the poorest members of society. Analyses conducted in Tanzania (Lee, Pan, et al., 2022) and Uganda (Cantelmo et al., 2022) both found similar results.
Ultimately the achievement of universal health care relies on a people-centered approach to health care that recognizes that the elimination of OOP expenditures is desirable but not sufficient to remove barriers to clients.

In Mozambique, for example, it was determined that clients faced very few direct costs for receiving health services, but that they still faced significant indirect costs (transportation costs and lost income) that represented a barrier to the uptake of services. Health services must recognize that these barriers exist and identify ways in which these costs can be minimized (e.g., locating health facilities in rural communities where they would otherwise face significant costs of transport).

[1] The World Bank Metadata Glossary

[2] Walsan, R., Mitchell, R.J., Braithwaite, J. et al. "Is there an association between out-of-pocket hospital costs, quality and care outcomes? A systematic review of contemporary evidence," BMC Health Services Research 23, 984 (2023).

Figure A: Total per Visit Cost to the Client and Burden of Direct Costs by Wealth Quintile for HIV Services



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