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Human Development

Creating Evidence for Better Health Financing Decisions

A Strategic Guide for the Institutionalization of National Health Accounts

Akiko Maeda, Margareta Harrit, Shunsuke Mabuchi,
Banafsheh Siadat, and Somil Nagpal

THE WORLD BANK

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Foreword

In many developing countries, a large portion of health care is financed through out-of-pocket spending incurred by households. Not surprisingly, this situation often deters the poor from seeking the health care they need. It also puts the non-poor at risk of becoming impoverished, as they use up their savings and sell family belongings to pay for treatment. Weak risk pooling mechanisms and limited public health spending compound this result. In low-income countries, government spending on health often accounts for a small proportion of total health expenditures. Furthermore, evidence shows that in several low- and middle-income countries, the non-poor may proportionately benefit more from public health spending than do the poor, and public spending is often not allocated in a cost-effective manner.

As a result, the key to realizing the promise of better health for all is the availability of an effective method to improve the quality, progressivity, and the reach of health financing, especially given continued uncertainty in the global economy; the severe fiscal pressures on leading aid donors; and the fact that most resources are allocated at the country level, even for highly donor-supported countries. This method in turn should strengthen the underlying systems that deliver better health results, which countries and their communities crave.

National Health Accounts (NHA) substantially contribute to the effort of improving health financing policy at global and country levels and offer a globally recognized framework for collecting, compiling, and analyzing data on health expenditures to and within the health system. They contribute to creating transparency on where money comes from and how it is spent. They are a critical input for highlighting gaps in coverage, holding institutions accountable for improved performance, and informing effective health financing policy.

Yet today, NHA are routinely produced mainly in the developed world. Although dozens of low- and middle-income countries have produced NHA, activities have often been delinked from core policy planning and budgeting processes—and from the leaders who drive those processes—at the country level. As a result, information on health resource flows in many developing countries is incomplete, inconsistent, or has a limited effect on policy decisions.

The World Bank, with the support of the Bill and Melinda Gates Foundation, has been privileged to work closely with global partners, technical experts, and with policy makers in a wide mix of countries across all continents, to improve resource tracking for better health financing policy, which requires the institutionalization of NHA. This book, C*reating Evidence for Better Health Financing Decisions*, synthesizes lessons learned from more than 50 countries.

As part of this effort, a framework has emerged that presents NHA activities as a cycle of activities with a clear purpose to serve policy makers, extending beyond the production of data: it involves the broad dissemination of that data and their translation into insightful analysis that can form an evidence base for effective policy making, underpinned by the nature of a given country's governance structure, human resources, and financing abilities. This book makes a distinct contribution in the way it addresses each step in the cycle of activities, assisting countries take greater ownership of the process of producing evidence and to make greater use of that evidence for better health financing decisions. The book also presents 14 country case studies on how countries have harnessed NHA to strengthen policy.

The global health community is scaling up its efforts to make important progress toward improved measurement and evaluation for enhanced results. The journey toward evidence-based health financing decisions begins with country leaders and their development partners committing to greater transparency and understanding of the flow of funds to improve the performance of the health systems, allocating their own resources

more effectively, and leveraging aid and aligning it with country priorities and plans. This approach requires a long-term strategic partnership between countries and development partners, in which countries own critical dimensions of the cycle of activities required to produce and use robust evidence on financial flows in the health sector for decision making. Fortunately, much is to be learned from the experiences of the countries that have already embarked on this journey.

Above all, this book is a *strategic guide*, intended as a practical resource for developing countries and their partners as they seek to strengthen long-term ambitions for effective resource tracking that is explicitly intended to inform policy. Yet it also bears testimony to the efforts of many committed individuals around the world, and in governments, and their development partners to shed greater light on health spending, and thereby help improve the coverage, quality, equity, efficiency, and effect of health care. Their work has created a solid foundation. However, much remains to be done.

Achieving better health and financial protection for all requires a sharp commitment to evidence based policy. NHAs are a critical component of that commitment, and this book is a contribution from the World Bank and global partners to this commitment.

Cristian C. Baeza
Director, Health, Nutrition, and Population
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Acknowledgments

Policy makers and technical experts from more than 50 countries have contributed to the shaping of this book through an extensive consultative process involving low-, middle-, and high-income countries—large and small—from all corners of the world (see appendix E). We are grateful for these contributions, which have helped shape a book that represents a synthesis of lessons learned from country experiences. This book is intended to serve as a Strategic Guide, helping countries build greater ownership of the process of designing, implementing, and integrating National Health Accounts (NHA) into their planning, budgeting, and monitoring processes. It is hoped that the Strategic Guide will assist countries in bringing NHA into the broader umbrella of resource tracking for better health financing policy and will encourage countries and their international development partners to plan strategically in the spirit of genuine partnership and mutual responsibility.

The Bill and Melinda Gates Foundation (BMGF) provided generous financial support for activities undertaken in this global initiative, including the development of the Strategic Guide and the case studies; provision of technical assistance to institutionalize NHA in selected countries; consultative meetings with experts and practitioners for methodological development; and in-depth analysis of the constraints to institutionalizing NHA, based on collaborations and interactions with developing country partners.

The Strategic Guide was developed in consultation with Technical Advisory Group members who included colleagues from the following development partner organizations: BMGF, U.S. Agency for International Development (USAID), World Health Organization (WHO), and Organisation for Economic Co-operation and Development (OECD) (see appendix E). We are grateful also for the support and guidance of several other development partners, such as the African Development Bank and Inter-American Development Bank, regional observatories, and NHA networks (see appendix E). Further, numerous World Bank and development partner field staff members have informed the creation of this book and contributed to the design and implementation of technical work in countries (see appendix E).

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Overall guidance for this Strategic Guide has been provided by Cristian Baeza, Sector Director for Health, Nutrition and Population at the World Bank, and Akiko Maeda, Lead Health Specialist at the World Bank. The project team leader, Margareta Harrit, Health Specialist, HDNHE, and the core team, including Shunsuke Mabuchi, Health Specialist, HDNHE; Banafsheh Siadat; and Somil Nagpal, Health Specialist, South Asia, synthesized this guide, building on earlier work by Mukesh Chawla, Head of Knowledge, Human Development Network; Ajay Tandon, Senior Economist, EASHH; Charu Garg, Senior Health Specialist, HDNHE; Rubama Ahmed; Vaihab Gupta; and Mahesh Shukla. Outstanding project management support was provided by Program Assistants Daniela Hoshino, Emiliana Gunawan, and Mario I. Mendez.

The compendium of case studies was developed in consultation with country contributors and numerous World Bank and development partner field staff members from organizations such as USAID, WHO, and OECD, as well as regional networks and observatories.

Overall guidance for the case studies has been provided by Akiko Maeda, Lead Health Specialist at the World Bank. The project team comprised Margareta Harrit, Banafsheh Siadat, and Shunsuke Mabuchi.

The Strategic Guide and the case studies were edited by Colin Douglas.

Abbreviations

ADePT	Software Platform for Automated Economic Analysis
AIDS	acquired immune deficiency syndrome
APNHAN	Asia-Pacific National Health Accounts Network
ARV	anti-retroviral drug
BIA	benefit incidence analysis
CHIPSR	Centre for Health Information, Policy and Systems Research (Fiji)
CIS	Commonwealth of Independent States
CSMBS	Civil Servant Medical Benefit Scheme (Thailand)
DAC	OECD Development Assistance Committee
DHS	Demographic and Health Surveys
DOH	Department of Health
DoHFW	Department of Health and Family Welfare (India)
Equitap	Equity in Asia-Pacific Health Systems
EURO-EMRO	Europe–Eastern Mediterranean Region (WHO)
FIES	Family Income Expenditure Survey
FNU	Fiji National University
GDP	gross domestic product
GHI	Global Health Initiative (United States)
HHC	High Health Council (Jordan)
HIV	human immunodeficiency virus

HMIS	health management information system
HR	human resources
HTP	Health Transformation Program (Turkey)
HUES	Health Utilization and Expenditure Survey (Georgia)
IAC-HNS	Inter-Agency Committee on Health and Nutrition Statistics (the Philippines)
IHPP	International Health Policy Program (Thailand)
IMF	International Monetary Fund
INRSP	Institute for Public Health Research (Mali)
IOPHOS	Institute of Public Health of Serbia
KIHASA	Korea Institute of Health and Social Affairs
KIHSM	Korea Institute of Health Services Management
LAC	Latin America and the Caribbean (network; now REDACS)
LHA	local health account
M&E	monitoring and evaluation
MAP	State Health Program for Medical Assistance to the Poor (Georgia)
MDG	Millennium Development Goal
MNHA	Malaysia National Health Accounts Unit, Planning and Development Division of the Ministry of Health
MOF	Ministry of Finance
MOH	Ministry of Health
MoHFW	Ministry of Health and Family Welfare (India)
MoHSW	Ministry of Health and Social Welfare (Tanzania)
MoLHSA	Ministry of Labour, Health and Social Affairs (Georgia)
MOPH	Ministry of Public Health
MTEF	Medium-Term Expenditure Framework
NASA	National AIDS Spending Assessment
NCMH	National Commission on Macroeconomics and Health (India)
NDA	National Drug Account
NESDB	National Economic and Social Development Board (Thailand)
NGO	nongovernmental organization
NHA	National Health Accounts
NHI	National Health Insurance (Republic of Korea)
NHIC	National Health Insurance Corporation (Republic of Korea)

NHIF	National Health Insurance Fund (Serbia)
NIHSA	National Institute of Health and Social Affairs (Georgia)
NSCB	National Statistical Coordination Board (the Philippines)
NSO	National Statistical Office (Thailand)
OECD	Organisation for Economic Co-operation and Development
OOP	out-of-pocket
PER	Public Expenditure Review
PETS	Public Expenditure Tracking Survey
PG	Producer's Guide
PNDS	National Health Development Plan (Burkina Faso)
PPP	purchasing power parity
PREM	Poverty Reduction and Economic Management Network (World Bank)
REDACS	Network of the Americas on Health Accounts
SC	steering committee
SES	socioeconomic survey (Thailand)
SG	Secretary General
SGK	Sosyal Güvenlik Kurumu (Turkey)
SHA	System of Health Accounts
SSS	Social Security Scheme (Thailand)
TB	tuberculosis
THE	total health expenditure
TURKSTAT	Turkish Statistical Institute
TUSAK	Turkish Ministry of Health–affiliated School of Public Health
UC	Universal Coverage (Thailand)
UHI	universal health insurance
USAID	U.S. Agency for International Development
WHO	World Health Organization

Executive Summary

Policies to improve the equity and efficiency of health financing can play a critical role in strengthening health outcomes in the developing world. However, such policies must be built on a foundation of sound evidence and analysis.

There has been a global effort to promote the institutionalization[1] of National Health Accounts (NHA) as a tool to provide a robust evidence base for the sources and allocation of public, donor, and private health expenditures at the country level. Since 2008, the World Bank has been coordinating this effort, which draws on lessons learned from countries at different stages of the journey toward institutionalization. That work has culminated in this strategic guide for the institutionalization of NHA, developed through an extensive consultative process involving more than 50 low-, middle-, and high-income countries, large and small, in all corners of the world.

This guide represents a synthesis of lessons learned from country experiences and is intended to help countries build greater ownership of the process of designing, implementing, and integrating NHA into their planning, budgeting, and monitoring processes. The key elements of the guide follow.

The Value Proposition for Institutionalizing NHA

NHA provide national decision makers with essential financial information on a country's health system and facilitate more sustainable, equitable, and efficient allocation of resources. NHA thus represent a cost-effective, "smart" investment for countries.

Many countries do not really know how much is spent and on what or by whom. Effective policy making demands that decision makers have access to essential information on health expenditures—such as the share of health expenditures within an economy, the financial burden of health spending on households, the magnitude of external financing in health expenditures, and the share of spending on primary care. Also important, policy makers must understand how fund flows are shifting over time in their countries and must make accurate comparisons with health expenditures in other countries.

Low revenue-generating capacity, low prioritization of health, and other constraining factors often account for low levels of government spending on health in many low-income countries, and, in many countries, government health spending benefits the rich more than the poor (Tandon 2007). A large share of total health expenditures in low-income countries (more than 75 percent, on average) is from private sources, and almost all of this is out-of-pocket payments (figure ES.1). This is especially problematic because it exposes vulnerable populations to the risk of impoverishment (or nontreatment) as a result of health shocks.

Health systems in both low- and middle-income countries often struggle with issues related to universal coverage, financial protection, quality, responsiveness, cost containment, and efficiency. The government's share of overall health expenditures tends to rise with income, and middle-income countries typically have larger publically funded components in their health systems than do low-income countries. Demands for good base data are often prompted or intensified by the need to raise additional public resources for expanding insurance coverage, improving the efficiency of spending, and ensuring the effective performance and sustainability of health systems, among others. NHA provide a globally recognized framework to systematically measure the total expenditure and the flow of funds in a country's health system. NHA provide a rigorous methodology that reveals sources of funds, resource gaps, and potential areas for capturing greater resource efficiencies. They disaggregate total health expenditures by end user, type of provider, and the population subgroup that benefited from health services. With such information,

Figure ES.1 Health Expenditures in Relation to Income per Capita and as a Share of Government Budget, 2007

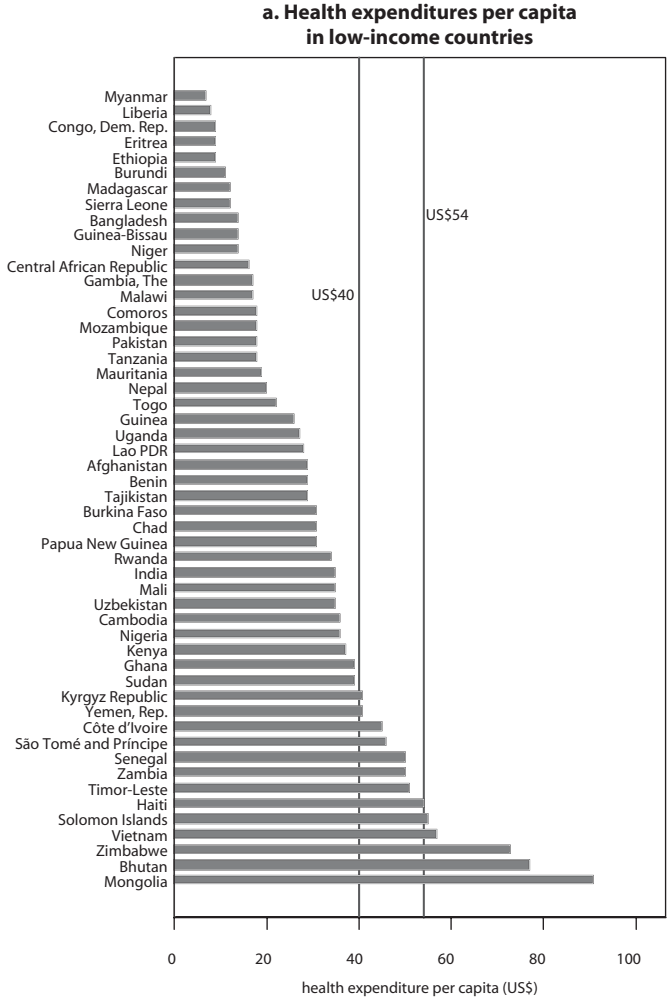

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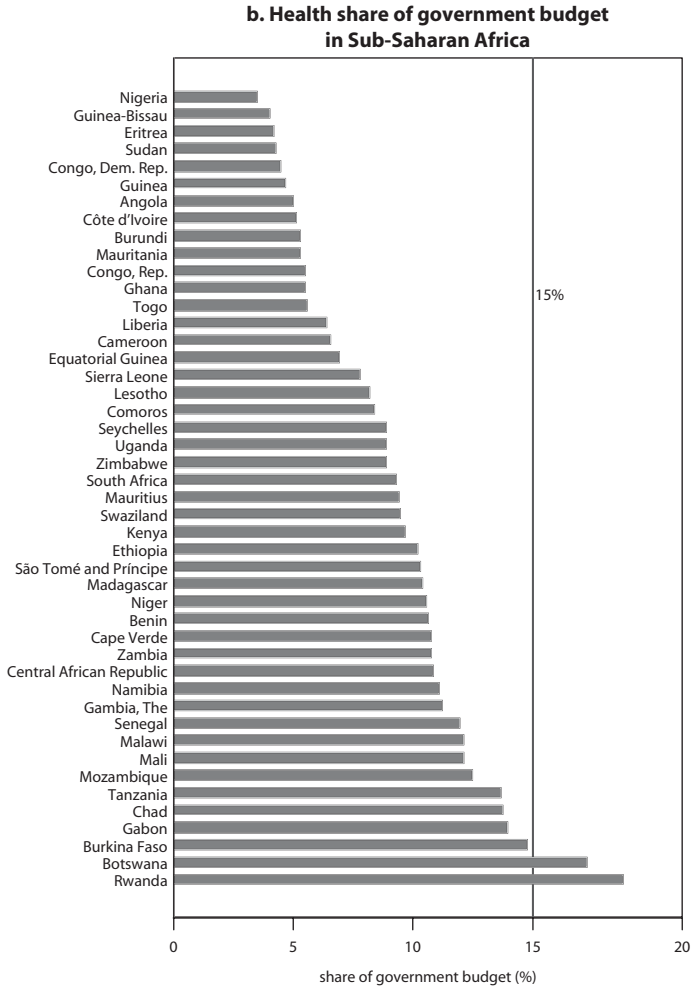
Figure ES.1 *(continued)*



Source: Tandon and Cashin 2010.

countries can monitor spending and design policies to achieve more sustainable, equitable, and efficient health financing.

NHA can provide considerable added value to countries. Many countries that have institutionalized NHA have benefited from the ability to visualize resource gaps and inefficiencies. As a result, country leaders have focused attention on priority issues, such as reducing out-of-pocket

payments by households, mobilizing additional resources for health care, and identifying opportunities to improve cost-efficiency in government spending.

Constraints to Institutionalization

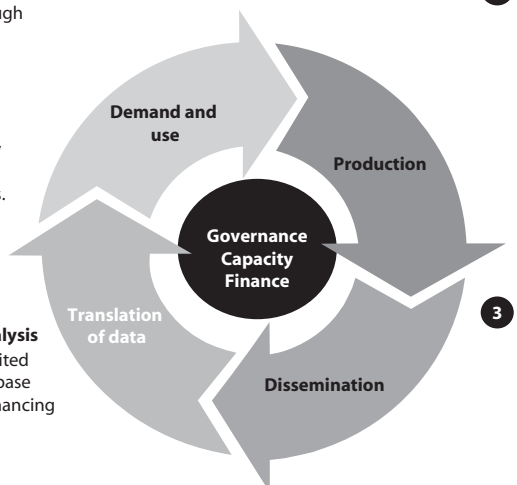
The number of countries that have institutionalized NHA is still very limited. In 2010, only 41 countries were routinely producing NHA, many of them members of the Organisation for Economic Co-operation and Development. Institutionalization of NHA has not progressed as fast as expected despite the value added of NHA and evidence that in-country institutionalization can result in significant savings in cost and time.

Country experiences reveal that one of the major constraints to institutionalization has been the failure to recognize the equal importance of each dimension of the NHA institutionalization cycle and to effectively implement effective strategies across the full range of the cycle. Institutionalization requires a full cycle of NHA activities to be embedded within a country's planning and budgeting processes. This cycle extends beyond production and involves translating the essential information that NHA can provide for insightful, evidence-based policy recommendations for decision makers (figure ES.2). The steps in the cycle and their effective links to one another are influenced and guided by a country's governance structure, as well as its institutional capacity and financial resources to support NHA-related activities.

Historically, a major challenge in using NHA for decision making has been the weak link between data production and its application by key stakeholders who could make use of NHA to inform policy. Much of NHA capacity building has focused on data collection and production, whereas the translation of data into policy-relevant information has lagged because of a relative dearth of financial and material resources. This translation is essential for enabling policy makers to capture, interpret, and use the critical information contained in NHA for their policy decisions. Likewise, a clear strategy is required to disseminate NHA data and analyses to target audiences through a variety of channels.

A second major constraint in NHA institutionalization has been the absence of attention to developing a long-term strategy for ownership and capacity building that realistically accounts for a country's unique resource environment. Countries need to "learn by doing" and should tailor NHA to meet their domestic policy needs. In this, the international development partners who support NHA will need to take a longer view

Figure ES.2 Framework for Institutionalization of National Health Accounts



1 Demand and use

- As country leaders make tough trade-offs to ensure an equitable and efficient allocation of scarce health resources, there is a critical need for an evidence base.
- Regular use of NHA in policy making contributes to more sophisticated policy analysis.

2 Production, data management, and quality assurance

- Sustainable production of data remains a major challenge in many countries, but capacities to produce health accounts have grown significantly in the developing world over the past decade.

3 Dissemination

- Making the collected data available for analysis enhances transparency and, with experience, analysis and insights that inform policy.
- In countries that have institutionalized NHA, data are widely disseminated.
- Dissemination takes place on two occasions: (1) when the NHA tables have been produced, and, (2) after the data have been translated into policy relevant briefs.

4 Translation of data and dissemination of specific analysis

- The value of NHA data is limited unless used as an evidence base for more informed health financing decisions.
- Country ownership of the translation process allows countries to champion key policy insights, increasing the likelihood that the answers NHA data provide will be used to affect policy.

Source: Authors.

on institutionalizing NHA and allow sufficient time and pacing of activities to ensure country ownership.

In countries where consultants have conducted NHA production with insufficient focus on the transfer of capacity to local staff members, there has been little ownership by countries and little use has been made of the data at the country level. Several countries have undertaken multiple rounds of NHA production, yet they do not possess the institutional skills to own the process in a way that serves annual budget and planning processes at the country level. Such practices have led NHA activities to be viewed as an externally driven (rather than country-owned) process.

For the NHA cycle to be fully optimized and leveraged, the process needs to be owned by country champions who can coordinate and ensure effective links between the steps in the NHA cycle. This ownership needs to be defined and adjusted on the basis of a country's governance structure and availability of human and financial resources.

In countries where external assistance is needed, there must be a shared responsibility in which countries have an explicit stake in managing the NHA institutionalization cycle. Institutionalization will occur only when country leaders recognize the added value of the evidence base that NHA help produce. For example, low-income countries might focus on ensuring that the use of NHA data will serve as an input to policy decisions and annual planning and budgeting activities, while continuing to rely on development partners for part of the financing and production of NHA. In middle-income countries, country ownership might extend to the entire cycle, including financing and production of NHA, with minimal external support.

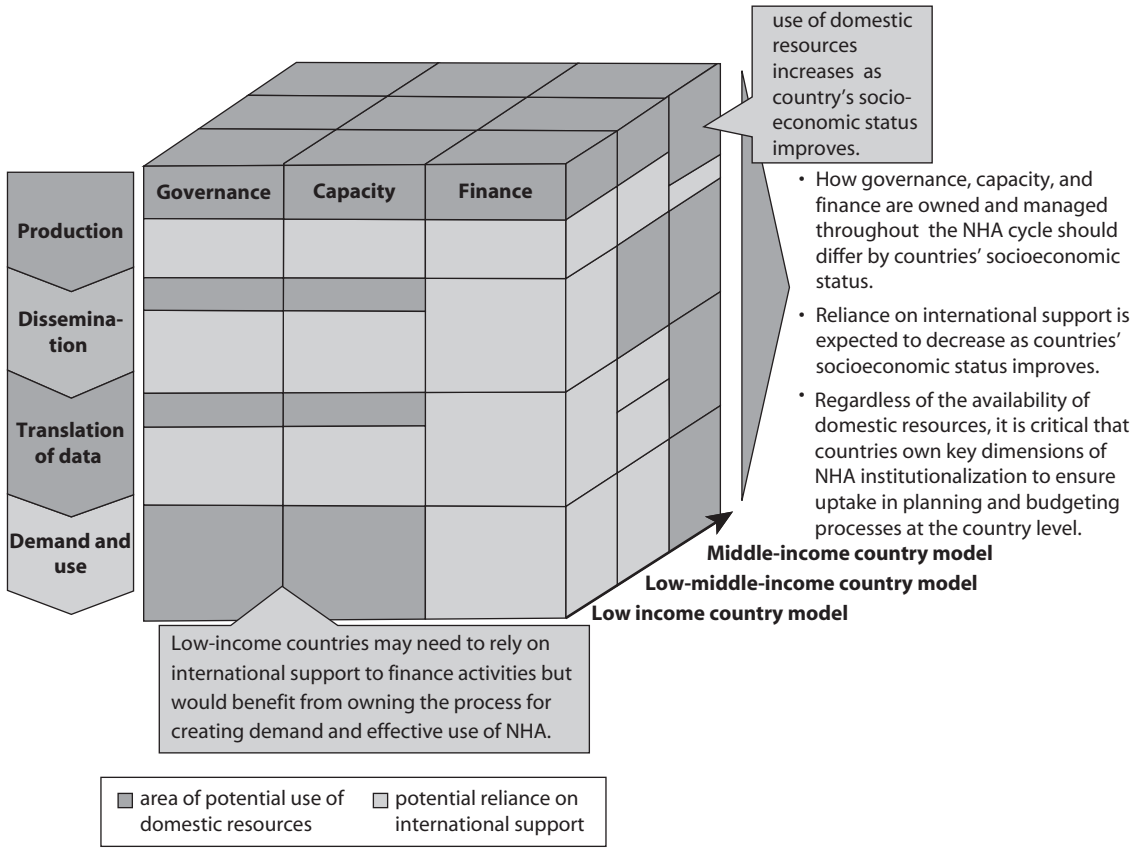
The Way Forward

Effective NHA institutionalization requires the development of long-term strategies that address three key elements of the cycle—governance, capacity, and financing—adjusted to a country's socioeconomic status (figure ES.3). Experiences drawn from the countries that have contributed to this global initiative have provided valuable insights on the importance of these elements in building the foundation for sustaining the NHA cycle. These are summarized below.

Governance

The governance structure of NHA is a core component in linking NHA production to use of the data and their translation through further

Figure ES.3 A Three-Dimensional Model of Country Ownership of NHA Institutionalization



Source: Authors.

analysis into insights to support policy making. Country experiences show that different governance models exist for NHA, each with its own strengths and challenges. A country can choose a model that best fits its political context and capacities.

Countries typically employ one of four governance models for NHA: (a) an effort led by the ministry of health (MOH) with little external collaboration; (b) an MOH-led endeavor with multisectoral collaboration; (c) a government-mandated coordination by a multisectoral team; and (d) an undertaking led by an entity outside of government. Each model has its strengths and limitations. The optimal institutional "home" for NHA will depend on a country's institutional capacity, financial resources, and political context.

In all cases, an important element of success involves clearly delineating the responsibilities within the core teams and building strong and explicit links with other agencies to facilitate access to and validation of data. Many countries define a coordinating body to plan, budget, and coordinate the cycle of NHA activities; a policy advisory group that liaises with key decision makers to provide them with essential financing information; and a technical consultative group that provides (a) data collection support, (b) data validation, and (c) quality assurance of data.

Capacity Building

Capacity building should target existing gaps within the NHA cycle and focus on building institutional knowledge. Creating a mechanism to embed the NHA cycle within the policy-making process can increase the sustainability of NHA and bridge the gap between production and use.

Production, dissemination, and effective use of NHA depend on access to a skilled workforce equipped to produce work of high technical quality and empowered to coordinate the links between each step of the NHA cycle. Capacity constraints are common, especially in health systems in which statisticians, health accountants, and health economists are scarce.

Capacity building in many countries has been focused on production. However, a comprehensive assessment of and targeted approach to critical gaps across the entire NHA cycle will be crucial to build sustainable capacity for the complete cycle of data production, dissemination, translation, and use.

Experience also shows that addressing institutional and environmental factors can greatly increase the capacity to sustain NHA activities and link NHA to policy decisions:

- Countries can build institutional knowledge by ensuring that the NHA process is standardized and well documented and by creating tools to facilitate the process. This approach reduces reliance on the knowledge of a few staff members or of external consultants.
- Countries can consider strengthening their institutional production capacity by outsourcing production of NHA or by partnering with entities outside the MOH or outside government, such as universities and independent policy and research institutions.
- Countries can build an institutional mechanism that links NHA to policy units in the MOH as well as to formal budgeting and planning processes (such as public expenditure reviews and medium-term expenditure frameworks). This will give decision makers access to insights from NHA, thereby bridging the gap between production and use.
- Broader contextual factors such as the political, financial, and institutional environment affect the efficiency and effectiveness of the NHA cycle.

Learning by doing is an effective approach to building long-term capacity. Capacity building for NHA, at both the individual and the institutional levels, is a highly iterative process. For example, an NHA team gradually learns the NHA classification and methodology; it partners with multiple organizations to streamline the data collection process; it aligns existing surveys to the NHA format; it adjusts methodologies to estimate consumption; it includes high-level policy makers in a policy advisory group; and it improves communication among members of that advisory group.

Financing

A long-term financing strategy can help countries sustain NHA activities and capture cost-efficiencies early. A long-term financing strategy can generate cost savings. Overall, country experiences show that the cost of NHA tends to decrease significantly with each subsequent round of NHA production. It is thus crucial that a long-term financing strategy is put in place extending beyond the initial rounds of NHA production and providing for cost-sharing between development partners and countries. In addition, embedding NHA activities in a country's planning and budgeting processes can ensure sustained financing of NHA.

Opportunities for capturing cost-efficiencies reside in early rounds of the NHA cycle. More than 70 percent of the total average NHA cost is

made up of survey, consultant, and staff costs, which form an even larger proportion of costs in early rounds. There are several opportunities to capture cost-efficiencies early:

- Survey costs can be saved by integrating the NHA data collection process with routine data management systems and by simplifying and standardizing processes and tools. Several countries avoid survey costs by using their existing data system—sometimes by using estimation methodologies or by revising questionnaires and classifications of existing surveys and budget items. Low-income countries also can limit the survey questionnaire to essential information and use automated NHA production tools.
- Localizing and standardizing production and analysis can save costs on international consultants. Consulting costs can be reduced by (a) leveraging cheaper regional and local expertise and avoiding international consultants, (b) standardizing and minimizing the NHA process to reduce the workload of consultants, and (c) building staff capacity to reduce the need for consultant support. These steps can also improve development of in-country knowledge and skills to manage the NHA cycle.

International and Regional Organizations

International and regional organizations can add value through their global networks and cost-efficient, peer-learning approaches. However, they also have specific challenges to overcome if they are to serve countries effectively over the long term.

Coordination at the global level can support institutionalization across the full cycle of NHA activities at the country level by helping to improve accountability and transparency and facilitating the use of internationally comparable data. Moreover, international development partners can add value by (a) serving as a repository of knowledge to build institutional capacity and facilitate the exchange of information, (b) facilitating the link from data to issues relevant to policy, and (c) improving transparency in their financing of health resource tracking activities.

Regional agencies can add value to countries by facilitating peer-based learning, serving as a repository of knowledge and best practices, and providing cost-efficient technical expertise. However, regional agencies often lack adequate financing and strong governance structures to support their work. To leverage regional agencies effectively, countries and international development partners must overcome these challenges

through further dialogue. Countries need to define the modality that best serves their needs and be willing to contribute to the costs of establishing and managing the agencies. This approach would create a market equipped to shape the purpose and added value of regional networks from a country perspective.

Conclusion

Through the process of synthesizing country experiences, it has become clear that countries require an evidence base to increase equity and efficiency of health financing allocations. To maximize the value of insights that NHA data can help provide, NHA activities can no longer be addressed in isolation, but rather conducted strategically to serve as an input into broader resource tracking efforts and national budgeting and planning activities and, ultimately, to inform policy. This shift requires a more strategic partnership between countries and their development partners and calls for genuine commitments to mutual transparency and accountability of resources. It is hoped that countries and their development partners can fully use NHA in making headway toward national and international targets and in improving the efficiency and effectiveness of country-led efforts to build more equitable and efficient health systems for populations.

Note

1. Institutionalization is defined as routine government-led and country-owned production and application of an essential set of policy-relevant health expenditure data using an internationally accepted health accounting framework.

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Introduction

One of the key constraints to improving health outcomes in the developing world relates to equitable and efficient health financing. In most developing countries, a large portion of health expenditure is private and out-of-pocket (Gottret and Schieber 2006). This expense deters the poor from seeking health care and puts many of the non-poor at risk of impoverishment as a result of a health shock when they do seek care. The public sector's share of health expenditure is relatively small in low-income countries. Further, there is empirical evidence indicating that, in several low- and middle-income countries, the rich proportionately benefit far more from public health spending than do the poor (Wagstaff 2010). Moreover, public spending is often not allocated in a cost-effective manner.

Any analysis of health financing issues must begin with sound estimates of the level and flow of resources in a health system, including total levels of spending, the sources of health expenditures, and the uses of funds in terms of what services are purchased and who purchases them. The analysis should also aim at understanding how these resource flows are correlated with health system outcomes, including those of improving health, reducing health inequalities, and reducing the incidence of catastrophic health expenditure. National Health Accounts (NHA) provide a

framework to collect, compile, and analyze such data on all types of health spending in a country—and so create a robust evidence base for policy making.

Although NHA delineate the key financial metrics of a health system, the collection of these data has not been institutionalized in most developing countries. Although most member countries of the Organisation for Economic Co-operation and Development (OECD) follow standardized guidelines and systems to report NHA annually, many developing countries do not have systems in place for the routine reporting of NHA-related information. The root problems are often the same: insufficient resources to collect, collate, analyze, and produce information on spending; poor development of health and other information systems; low levels of local capacity to interpret information to meet policy needs; and inadequate demand for data within countries.

In many low- and middle-income countries, previous NHA activities have been conducted as ad hoc, donor-driven initiatives. Some countries have never developed NHA; as a result, information on health resource flows in these countries is often limited, incomplete, poorly communicated and understood, or inconsistent.

Initially, much of the difficulty in NHA institutionalization was attributable to the presence of several, competing methodological approaches, which brought confusion to the production process. This issue has been resolved, after more than a decade of creating and testing an internationally accepted methodology through a System of Health Accounts (SHA) that was developed in consultation with experts globally and that has been endorsed by the OECD, the World Health Organization (WHO), the European Union, the World Bank, the U.S. Agency for International Development (USAID), and several other multilateral and bilateral agencies. SHA is a statistical framework for presenting NHA results in an internationally comparable manner. It provides a standard framework for producing a set of comprehensive, consistent, and internationally comparable health accounts to meet the needs of public and private sector health analysts and policy makers. First produced by OECD in 2000, it has since been updated to better meet the evolving needs and demands from a wide range of countries in SHA 2011 (OECD, Eurostat, and WHO 2011). SHA 2011 is the result of a four-year collaborative effort between OECD, WHO, and the European Commission that takes into account the range of health care systems around the globe with very different organizational and financing arrangements. Although this book does not address the detailed methodology, it has been well documented

in the statistical reference manual for SHA 2011 (see appendix A for brief overview) and can be found in the *Guide to Producing National Health Accounts* (World Bank, WHO, and USAID 2003).

There has been a global effort to promote the institutionalization of NHA as a tool to provide a robust evidence base on the sources and allocation of public, donor, and private health expenditures at the country level. Since 2008, the World Bank has been coordinating a global initiative to identify bottlenecks to the institutionalization of NHA and to learn lessons in countries at different stages on the journey toward this institutionalization. The activities in this initiative have included the development of this book; provision of technical assistance to institutionalize NHA in selected countries; consultative meetings with experts and practitioners for methodological development; and in-depth analysis of the constraints to institutionalizing NHA based on collaborations and interactions with developing country partners.

Part I of this book has been developed through a consultative process.[1] Five international and four regional consultations have occurred, involving a wide mix of countries at different stages of the NHA institutionalization journey. In addition, leaders from more than fifty countries have contributed to the development of this report through workshops, technical assistance, and in-person or virtual conversations. Development partners have provided important contributions throughout the project, reflecting their past experiences with both NHA production and institutionalization. Further, numerous World Bank staff members have informed the creation of this book and contributed to the design and implementation of technical work in countries.

This book represents a synthesis of lessons learned from country experiences and is intended to serve as a strategic guide to countries as they design and implement their policy to develop nationally relevant and internationally comparable data, collected in a routine and cost-effective manner. These data will enable policy makers to develop and implement evidence-based decisions and to better measure the effect of health reforms, especially those related to health financing.

Part II of this book serves as companion material, providing detailed case studies of 14 countries that span multiple regions and income levels: Afghanistan, Burkina Faso, Georgia, India, Jordan, the Republic of Korea, Malaysia, Mali, the Philippines, Serbia, the Seychelles, Tanzania, Thailand, and Turkey.

The purpose of developing these case studies is twofold: (a) bring policy makers and producers of NHA closer together by introducing the

common language they use to the type of answers NHA can provide; and (b) learn how other countries have used NHA as an input to an evidence base that informs policy.

A robust evidence base for policy decisions can be created when country policy makers can articulate key policy questions that NHA can help answer and when countries have the capacity to translate NHA in ways that help respond to policy questions. This interaction between policy makers and NHA producers is an iterative process and needs to be repeated as a cycle of activities. The case studies also describe countries' efforts to produce, disseminate, and translate NHA into products used by a wide array of stakeholders. The compendium of case studies found in part II of this report aims to highlight each country's process of NHA institutionalization, as well as the outcomes of country efforts to build the evidence base for health policy. The lessons learned from their institutionalization efforts, which are incorporated into this book, are summarized in appendix D.

This compendium is not a comprehensive account of countries' use of NHA, but offers a guide for readers on various policy areas to suit multiple interests. The main policy areas introduced by the case studies include the following:

- Financial access to care: Afghanistan, Burkina Faso, Georgia, India, Jordan, Korea, Malaysia, the Philippines, Serbia, Tanzania, Thailand, and Turkey
- Resource allocation (for different income levels or regions): Burkina Faso, Korea, Mali, and the Seychelles
- National program planning, budgeting, and monitoring: Burkina Faso, Georgia, Mali, and Turkey
- Rational use of drugs: Afghanistan, Jordan, Korea, Thailand, and Turkey
- Disease-specific or general public-health programming: Georgia, the Philippines, and Thailand
- Transparency: Serbia
- Cost inflation: Jordan
- Quality of care: The Seychelles
- Donor aid coordination: Tanzania

Note

1. See appendix E, titled "Individuals and Organizations Consulted and Providing Inputs into the Strategic Guide."

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PART I

A Strategic Guide for the Institutionalization of National Health Accounts

CHAPTER 1

The Case for Institutionalizing National Health Accounts

This chapter sets out the business case for institutionalizing National Health Accounts (NHA) at the country level. First, it shows how NHA can play a critical role in strengthening national decision making and allocating health resources more effectively and equitably. The chapter then presents a framework for the institutionalization of NHA, from the production of accounts to their use in policy decisions. Each of the elements of this framework is then elaborated in subsequent chapters.

This chapter covers the following key points:

- NHA provide a globally recognized framework to systematically measure the sources of public and private health expenditures and the flow of funds in a country's health system.
- Input from NHA provide an evidence base regarding resource gaps and inefficiencies and can help in making policy decisions to reduce out-of-pocket payments borne by households, increase total health expenditures, and identify cost-saving opportunities on government spending.
- Linking NHA data with nonfinancial information (such as output and outcome indicators) can provide a powerful means of linking financial investments with attainments in health status and drive improvements in the effectiveness, efficiency, and quality of health services.

- A major constraint to institutionalization has been the failure to recognize the equal importance of each dimension of the cycle and the failure to implement effective strategies across the full range of the cycle.
- Although a country can "borrow" the capacity and finance needed to develop NHA, overall leadership and ownership of the NHA cycle must be provided by the country itself.
- A crucial objective in institutionalizing NHA is to align a long-term strategy between countries and development partners that facilitates country ownership of the NHA cycle and is based on a country's unique resource environment.

The Value Proposition for the Institutionalization of National Health Accounts

Essential Data to Inform Policy

Accurate information on the key dimensions of national health expenditures is essential for effective decision making by national policy makers, both in the health sector and beyond, and for the equitable and efficient allocation of scarce health resources. Such information might include the following:

- Health expenditures as a share of gross domestic product (GDP)
- The country's health expenditures and its composition over time
- The country's health expenditures as compared to those in countries with similar income levels
- The country's health outcomes as compared to those in other countries with similar income or health expenditure levels
- The financial burden imposed by health episodes on households—linked to their level of financial protection and their risk of impoverishment because of catastrophic health expenditures
- The share of health sector investment devoted to primary care
- The share of health expenditures reaching the population groups with the greatest health care needs
- The role of external financing in the country's health expenditures

NHA provide a globally recognized framework to systematically define, track, classify, and measure the total volume of expenditures and the flow of funds in a country's health system. NHA allow countries to produce consistent and internationally comparable information on the generation, allocation, and use of health system resources. This information can be used

in conjunction with other data sets, such as those on health outputs and health outcomes, to further enrich the analytical base for health policy.

If appropriately used, NHA can be a powerful tool to help countries document resource gaps, highlight resource efficiencies, effectively advocate for additional funds where needed, and channel money to priority areas.

NHA are also a means of ensuring accountability and transparency in a country's use of financial resources. They offer a rigorous methodology to account for the flow of health funds from financing sources such as ministries of finance (MOFs), development partners, and households to the entities that determine how these funds are spent, such as ministries of health (MOHs), insurance agencies, and households. Moreover, NHA allow for the disaggregation of total health expenditures by end use, such as by curative or preventive care, or by the type of provider that has delivered the service. With further analysis, NHA can help identify the population subgroups that have benefited from health services.

A key benefit offered by NHA is the ability to provide national decision makers with essential information about the financial status of a country's health system. This information can monitor and guide current and future expenditures and assist in the design of policies to improve health financing via a more sustainable, equitable, and efficient allocation of resources. In an era of constrained fiscal resources, NHA data can help countries prioritize funds and design more effective interventions to protect propoor health services. Information on how money is spent at all levels is critical for ensuring successful outcomes for major health sector reforms, including implementing universal coverage (for example, in Thailand) or decentralization (such as current efforts in the Philippines).

Baseline Data for National and International Equity Analysis

NHA can provide information on the financial burden that health expenses impose on households and provide an evidence base for reforms aimed at improving financial protection and reducing out-of-pocket payments. For example, in Mexico, NHA data raised concerns about exorbitant out-of-pocket expenses and led to the establishment of Seguro Popular, a program geared toward achieving universal health care coverage. Since 2004, those states participating in Seguro Popular have witnessed a 23 percent reduction in the proportion of families experiencing catastrophic health expenditures. The evidence also helped the government redistribute resources among the states (Frenk 2006; King et al. 2009). Georgia has also used the information from NHA to improve

financial protection for the poor and improve equity in access to health care (box 1.1).

Further, international comparability of NHA data allows countries with similar financing and health system structures to compare performance from an equity perspective. Box 1.2 summarizes several examples of comparative equity analyses using NHA. The need for comparative data, and standard methods to conduct such analysis, such as *A System of Health Accounts 2011* (OECD, Eurostat, and WHO 2011), are discussed in chapter 6 and appendix A.

Analysis and Projections to Improve Efficiency

Furthermore, in Turkey, NHA have been used to estimate the cost of the universal health insurance (UHI) system and its impact on out-of-pocket payments and to identify measures to capture cost-efficiencies in the UHI. NHA analyses identified the potential for a 38 percent reduction in the government's cost of the UHI through cost-efficiency measures such as family medicine practice, spending caps for the MOH and hospitals, and modest copayments, which have been adopted by the government to improve the financial sustainability of the UHI (box 1.3).

A Robust Evidence Base to Inform Policy Decisions

Table 1.1 illustrates how several countries have used the evidence provided by the NHA data to inform their policy decisions and to foster accountability and transparency in the health system.

As illustrated in table 1.1, information from NHA is also useful in allocating financial resources based on the country's health policies and priorities, which in turn are related to the long-term financial sustainability of a country's health system. For example, choosing the quantum of resources for treatment of noncommunicable diseases and provision of long-term care has been a major policy issue for countries battling with the demographic transition and an aging population. Large disparities in public coverage of long-term care costs among 19 Organisation for Economic Co-operation and Development (OECD) countries reflect variations in choice among countries in the way that long-term care is financed and provided (OECD 2005). Burkina Faso, in contrast, reviewed the end-use data from NHA to reallocate resources to poorer geographical areas and to institute free health promotion and preventive services (box 1.4). Decisions to improve resource allocation to reach those populations who need it the most give NHA a clear purpose in driving improvements in allocative efficiency, in contributing to raising

Box 1.1

Use of NHA to Promote Equity in Financial Access to Health Care in Georgia

Inequities in financial access to health care in Georgia have been highlighted by routine NHA analysis. Data revealed that Georgia primarily relies on private sources of financing, accounting for 71 percent of total health expenditures annually between 2001 and 2007. In per capita terms, private health care spending more than doubled over this period. This increase demonstrated the need for greater financial risk protection, particularly for the poorest populations.

Box Table 1.1.1 Private Health Expenditures as a Percentage of Total Health Expenditures, by Type of Medical Service, 2001–07

Medical service type	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Curative services (%)	34	29	29	30	30	29	28
Inpatient curative services (%)	19	16	17	17	16	16	15
Outpatient curative care (%)	15	13	13	13	13	13	13
Additional medical services (%)	7	8	8	8	8	9	9
Medical supplies and medical equipment (%)	31	34	40	40	39	34	34
Total private expenditures (%)	72	71	77	78	77	72	71
Total health expenditures (%)	100	100	100	100	100	100	100
Total health expenditures (GEL, thousands)	521.6	650.7	724.8	835.9	998.3	1,159.6	1,386.6

Sources: Georgia National Health Accounts; WHO 2009.

NHA estimations were subsequently used to inform the Medium-Term Expenditure Framework (MTEF), which provided additional insurance coverage for the poor as protection from financial risks related to catastrophic health care spending. As a result, 700,000 poor people (16 percent of the population) received insurance coverage for additional health care services and drugs. The benefit package was also expanded to include public health, primary health care, and select hospital care services so as to better provide financial access to care (World Bank 2008).

Sources: World Bank 2008; Goginashvili and Turdziladze 2009; WHO 2009.

Box 1.2

Using NHA for Comparative Equity Analyses

NHA data have been used in a comparative study to assess equity in the distribution of financing and health system resources in Bangladesh, Nepal, and Sri Lanka (Data International Ltd., Nepal Health Economics Association, and Institute of Policy Studies 2001). All three countries have health systems in which the predominant sources of financing are taxes and out-of-pocket payments by households. Despite the similarity in financing and delivery systems, the authors found significant differences in terms of equity between Bangladesh and Sri Lanka. In Sri Lanka, both tax and out-of-pocket payments were found to be progressive means of financing, with government health care expenditures being pro-poor. In Bangladesh, health financing was modestly regressive, and the distribution of government health expenditures was not pro-poor.

More recently, this comparative analysis of expenditure distributions linked to NHA data has been extended by the Equity in Asia-Pacific Health Systems (Equitap) network. It analyzed the distribution of government health spending in a range of countries and territories in the Asia-Pacific region and used NHA data to anchor comparative analyses of the progressivity of financing and of the household impacts of out-of-pocket health care spending. Its analysis of the equity dimensions of public health spending across 11 Asian countries and provinces revealed that the distribution of public health care is pro-rich in most developing countries (O'Donnell et al. 2007). Results from Malaysia, Sri Lanka, and Thailand showed that limiting user fees (particularly for the poor) and building a large network of health facilities are necessary to increase the pro-poor spending.

Equitap's study on the progressivity of health financing illustrated the structure and distribution of health financing in 13 Asian territories, combining health accounts and household survey data on household payments to estimate the distribution of health financing (O'Donnell et al. 2005). An important finding from this study was that more affluent groups generally contribute more as a proportion of ability to pay in low- and lower-middle-income territories. Moreover, Equitap's study of the catastrophic impact of health financing revealed that, despite the concentration of catastrophic payments to the better-off in the majority of low-income countries, out-of-pocket payments still push many families into poverty (Van Doorslaer et al. 2005). Overall, these studies illustrate both the use of NHA to conduct equity analyses, with implications for developing pro-poor policies, and the benefits of comparative cross-country analyses linked to standardized NHA estimates.

Sources: Authors.

Box 1.3

Universal Health Insurance in Turkey: Using NHA Analysis to Realize Efficiency Gains

In 2003, Turkey ranked behind most other middle-income countries in its health indicators—life expectancy was nearly 10 years below the Organisation for Economic Co-operation and Development average, and infant and maternal mortality rates were among the highest in middle-income countries. The public health sector was underperforming as a result of inefficiencies in resource allocation, undertrained staff, and poor incentives. To address these poor outcomes, the Health Transformation Program (HTP) was launched, which included the establishment of UHI and an integrated primary health care system based on the family medicine model.

During the design of the HTP, NHA studies were conducted to estimate the additional health care costs of achieving UHI and cost-saving opportunities that could help the government of Turkey maintain health care costs at a sustainable level while increasing insurance coverage. Different scenarios were used to model the various cost paths (see box table 1.3.1). The analysis showed that increased utilization as a result of increased insurance coverage in the absence of additional efficiency measures could potentially threaten the sustainability of

Box Table 1.3.1 Additional Costs of UHI

TL, trillion (2002 prices)

Model	*Total program costs*	*Additional government costs*	*Additional social costs*	*Additional out-of-pocket expenses*
Model 1: Complete coverage, no changes in use patterns	14,113	3,826	2,091	–1,734
Model 2: Complete coverage, with expected changes in use levels and patterns following introduction of insurance	17,005	6,462	4,728	–1,734
Model 3: Complete coverage, with expected changes in use levels and patterns following introduction of insurance and introduction of family medicine	16,755	6,213	4,214	–1,998

(continued next page)

Box 1.3 *(continued)*

Model	*Total program costs*	*Additional government costs*	*Additional social costs*	*Additional out-of-pocket expenses*
Model 4: Complete coverage, with expected changes in use levels and patterns following introduction of insurance, introduction of family medicine, and with measures adopted to reduce pharmaceutical, inpatient care, and hospital-based outpatient care expenditures	14,532	3,989	2,299	–1,690

Source: "Preparing for Universal Health Insurance in Turkey: Estimation of costs under different scenarios." 2004. Working document prepared for the Turkish Ministry of Health.

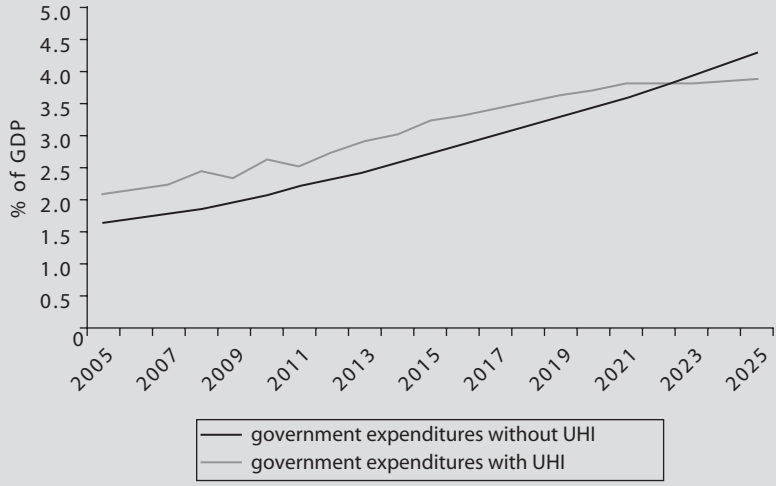
the UHI (see box table 1.3.1, model 2). In contrast, if increased insurance coverage was combined with the introduction of family medicine, referral rates and nonreferral outpatient visits to MOH hospitals could be reduced by 10 percent and 50 percent, respectively, resulting in cost savings. Further, introduction of expenditure caps for the MOH, private hospitals, university hospitals, and pharmaceutical spending, with modest patient copayments, could reduce the public health spending on UHI by 38 percent while maintaining the level of reduction of out-of-pocket expenses (see box figure 1.3.1, model 4). These results were presented to policy makers.

The government's adoption of these measures in the design of the HTP has led to significant efficiency gains and improved financial sustainability of the UHI system. In addition, significant improvements in health outcomes in terms of increased life expectancy and reduced infant and maternal mortality rates have also been realized. In Turkey, as the reform progressed, NHA studies have helped with the continued monitoring of the financial sustainability of the UHI system (OECD and World Bank 2008; World Bank and MOH 2011).

(continued next page)

Box 1.3 *(continued)*

Box Figure 1.3.1 Government Health Expenditures with and without UHI in Model 4 after Cost-Efficiency Gains



Sources: World Bank 2004; Mukesh Chawla (head of knowledge, World Bank), and Rekha Menon (senior economist, World Bank), personal interviews, August 22, 2011.

the equity of health spending, and in supporting country leaders in being accountable to the populations they serve. NHA can thus be used to increase the fiscal space available for public health expenditures, both through efficiency gains as well as through creation of an evidence-backed case for higher investments in health.

Review of Effectiveness When Combined with Other Data

NHA are an integral component of effective health information systems and health systems strengthening (WHO 2010). Linking this information with other nonfinancial information (such as output and outcome indicators) provides the basis for powerful tools to monitor performance; link financial investments with attainments in health status; and drive improvements in effectiveness, efficiency, and quality of health services. Lebanon, for example, used the findings from its NHA exercise to put in place a comprehensive pharmaceutical policy and to renew its focus on

Table 1.1 Policy Applications of National Health Accounts: Country Illustrations

Thematic area	*Country examples*	*Policy effect*
Evidence for designing health policy	**Jordan** Philippines Serbia Korea, Rep. Mali	**Problem:** Cost inflation in the pharmaceutical sector resulted in pharmaceuticals accounting for 34 percent of total health expenditures, or 3 percent of GDP. **Impact:** National Health Accounts (NHA) results prompted Jordan to revise its national drug use policy. For example, it developed a National Essential Drug List, a National Formulary for Essential Drug List, and a Joint Procurement Department to oversee the procurement of pharmaceuticals across the public sector.
Health sector reform and financial risk protection	**Thailand** Philippines Kenya India Jordan	**Problem:** Weak financial risk protection left a large number of uninsured among the Thai population. **Impact:** Using NHA data, Thailand developed a policy on universal coverage in 2002, incorporating its Low Income Scheme with the Health Card Scheme and extending coverage to those previously uninsured. The composition of health financing has changed over time, with public financing increasing and households accounting for only 18 percent of total health expenditures in 2008 (down from 44 percent in 1994).
Financial planning, budgeting, and financial sustainability	**Tanzania** Georgia Mali	**Problem:** In Tanzania, NHA data brought to light the high degree of donor aid provided off-budget that inhibited budgeting and planning for key health care programs. **Impact:** NHA data were used to encourage donors to channel funds in a "basket" managed by government. Since then, the proportion of donor funds provided for health through on-budget arrangements has increased significantly.
Accountability and transparency	**Serbia** Burkina Faso Tanzania Thailand	**Problem:** Transparency is weak in public and private financial flows to health, particularly "informal" payments to providers. **Impact:** NHA data revealed that households incur high out-of-pocket payments, including under-the-table payments to providers. This finding resulted in the development of the Fiscal Bill Policy requiring providers to share fiscal invoices with patients. The policy promotes transparency because it generates a more accurate picture of overall financial flows within the health sector to facilitate planning and rational allocation of funds.

Equity (across population groups, regions, program areas)	**Turkey** Kenya Thailand Burkina Faso	**Problem:** Inequities in health spending left many population groups without financial access to care. **Impact:** NHA data revealed a need to harmonize the benefit package across insurance schemes and mitigate out-of-pocket spending for the poor (through the Green Card holders program). As a result, Green Card holders were given access to outpatient care and pharmaceuticals, and today all insurance schemes have access to the same basic benefits package. Formal health insurance coverage has also increased, reaching 87 percent of the population compared to 67 percent of the population in 2002. Out-of-pocket payments have decreased from 27.6 percent in 2000 to 17.4 percent of total health spending in 2008.
Allocative and technical efficiency in health spending	**Mali** Philippines Kenya Burkina Faso	**Problem:** Weak allocative efficiency in Mali resulted in low financing for health at the periphery level. **Impact:** Mali has used insights from NHA data to shift health financing from central to periphery (regional) levels in order to implement the government's decentralization policy. The aim is to increase the budget ceiling at the periphery level and address needed capital and other investments.
Public health priorities	**Georgia** Sri Lanka Serbia Philippines Kenya	**Problem:** Limited knowledge of spending levels and trends for key public health programs in Georgia limited the effect of public health priorities. **Impact:** NHA data were used to inform the 2007 United Nations General Assembly Special Session report, covering prevention and treatment costs for HIV (human immunodeficiency virus). These results were then used to inform the government's HIV/AIDS (acquired immune deficiency syndrome) strategy. Tuberculosis (TB) subaccounts were used by the government and development partners in evaluating the National Strategic Plan for TB and assessing the current level of TB-related expenditures in Georgia.

Source: Authors.
Note: The policy effect data are from countries in bold text.

Box 1.4

Use of NHA Data to Improve Resource Allocation across Geographies and Program Areas in Burkina Faso

Burkina Faso has used NHA to improve resource allocation across regions and key program areas. The 2005 NHA revealed major geographic inequities in health spending, with poorer regions receiving less total health spending than more affluent areas. For example, Boucle du Mouhoun and Nord, two of the poorest regions within the country—with poverty incidences of 60 percent and 69 percent, respectively—received a combined total of 11 percent of all health care spending but were home to 20 percent of the country's total population. In contrast, the wealthier Centre region, home to just 9 percent of the population, received 29 percent of national health care spending, despite having only a 22 percent poverty incidence.

The discrepancy in health spending was due to the different ability of regions to invest in infrastructure and make capital investments. Poorer regions simply lacked the additional resources to devote to health care. This finding prompted the central government to construct and develop new health facilities, which increased by 62 percent between 2000 and 2009. The results also prompted the central government and development agencies to reallocate resources to poorer regions.

Effective resource tracking data have also been used to improve equity in resource allocation across health programs in Burkina Faso. For example, the 2005 NHA showed that 46 percent of the total health budget was spent on medication and other medical goods for outpatients, whereas 10 percent was spent on preventive services and health promotion. This prompted the government to offer free health promotion and preventive services to ensure that individuals continue to use primary health care services. Following this change, the 2006 NHA results showed that spending on medical goods for outpatients declined to 31 percent, while spending on preventive health increased to 26 percent.

In addition, the NHA results showed insufficient district health spending, indicating little involvement of the health sector at the district level. This finding prompted the central government to further decentralize responsibilities in health, for example, by transferring money and staff from central to district governments. (Zida, Bertone, and Lorenzetti 2010)

Source: Authors.

primary and preventive health care, which helped it to reduce health spending and the burden of out-of-pocket spending.

International Comparisons

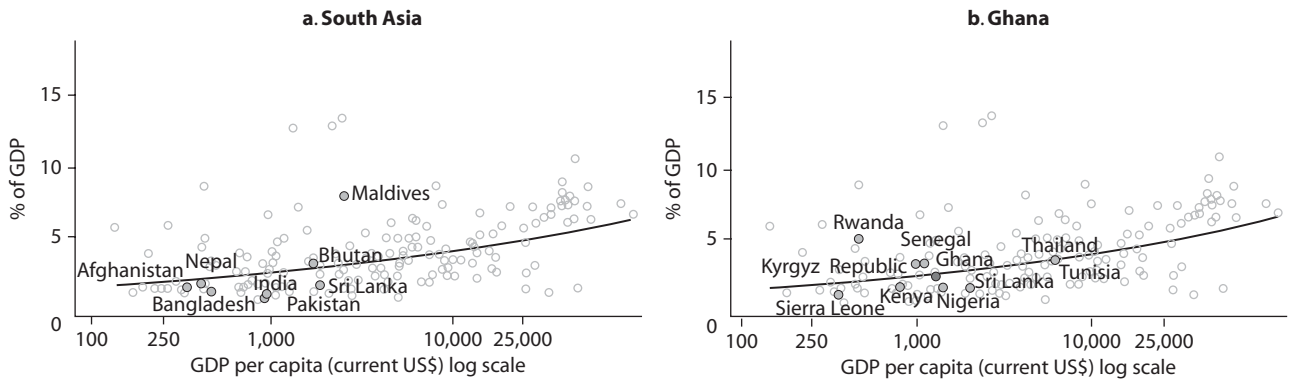
NHA data have also been used for benchmarking health system performance against established targets and goals at the national or international level and for identifying existing gaps and challenges. Figure 1.1, panels a and b, illustrate the use of NHA data in benchmarking the level of public expenditures on health as a share of a country's gross domestic product (GDP). In figure 1.1, panel a, the eight countries of the South Asia region are benchmarked in relation to their global peers as well as countries with similar levels of income (in terms of GDP per capita). The analysis was used to demonstrate that most countries in South Asia have a lower level of public spending on health than other countries with similar levels of income (LaForgia and Nagpal, forthcoming), making a case for increased public spending on health in South Asian countries. As depicted in figure 1.1, panel b, a similar analysis was undertaken for Ghana (World Bank 2011) using the same data set, where Ghana was compared with other African, East European, and Asian countries. Such analysis can provide a useful benchmarking tool for in-country as well as international use.

Transparency at the Global Level

For international development agencies, NHA data can inform the debate on the value of additional funds from development partners. Thus, it can provide critical information to international partners for additional resource needs to meet global priorities such as the Millennium Development Goals (MDGs). NHA data have provided evidence to forecast the availability of resources, and, based on this assessment of needs, the United Nations pledged US$40 billion for women's and children's health at the September 2010 United Nations Millennium Development Goals summit.[1] In May 2011, the United Nations Commission on Information and Accountability for Women's and Children's Health proposed a framework for global reporting, oversight, and accountability for women's and children's health. This accountability framework will track results and resource flows at global and country levels (see Chapter 6 of this book), making a clear case for resource tracking using the NHA framework.

NHA can also provide data for studies examining how the availability of international aid influences the allocation of domestic resources for the

Figure 1.1 Public Expenditures on Health as a Share of GDP and in Relation to Income per Capita, 2008



Sources: World Development Indicators; WHO 2010.
Note: x-axis log scale.

health sector (Farag et al. 2009; Lu et al. 2010). By integrating NHA data into other policy instruments, such as public expenditure tracking systems, public expenditure reviews, and medium-term expenditure frameworks (MTEFs), countries can link expenditures to budgets, making it possible to view the allocations in the context of complete public expenditure management as well as to forecast future needs. Using internationally accepted tools to define and measure health expenditures for these policy instruments also ensures that the numbers used are internationally comparable.

Analysis of the Fiscal Space

For a variety of reasons—for example, for assessing the availability of public resources for meeting health-related MDGs or for implementing much-needed reforms such as attaining universal health insurance coverage—a growing demand has arisen for a framework to analyze the fiscal space for the health sector in particular.

The primary questions motivating any fiscal space assessment for health generally include the following:

- Given well-defined needs, what are the prospects (if any) for increasing public spending on health in the short to medium term without jeopardizing the government's long-term solvency or crowding out necessary expenditures in other sectors?
- What is the effect of broader macroeconomic factors on public expenditures for health? And conversely, to what extent do public and private spending on health influence the macroeconomy?
- What can governments realistically afford, given macroeconomic and other constraints on public expenditures for health?
- Are there examples of innovative strategies that have been successful in increasing fiscal space for health in some countries that could be adopted in others?

It is virtually impossible to conduct a robust fiscal space assessment without access to baseline NHA data. First, analysis of NHA data provides a baseline assessment of the current allocation of fiscal space to health. Second, and of obvious importance for reform possibilities, NHA data can help identify the need for additional public (and total) spending on health and the potential fiscal space areas that could help meet such an identified need. For example, Turkey's Health Transformation Program aims to ensure the future fiscal sustainability of the health system.

Actuarial projections using NHA data were first conducted in 2007 under two different cost scenarios to illustrate the need for building cost containment controls into the system, such as hard caps on public health spending, cost-sharing mechanisms, and microefficiency measures to ensure financial viability and fiscal sustainability of the health system (OECD and World Bank 2008). Many such measures were introduced between 2007 and 2010, thus keeping public health spending at 6 percent of GDP.

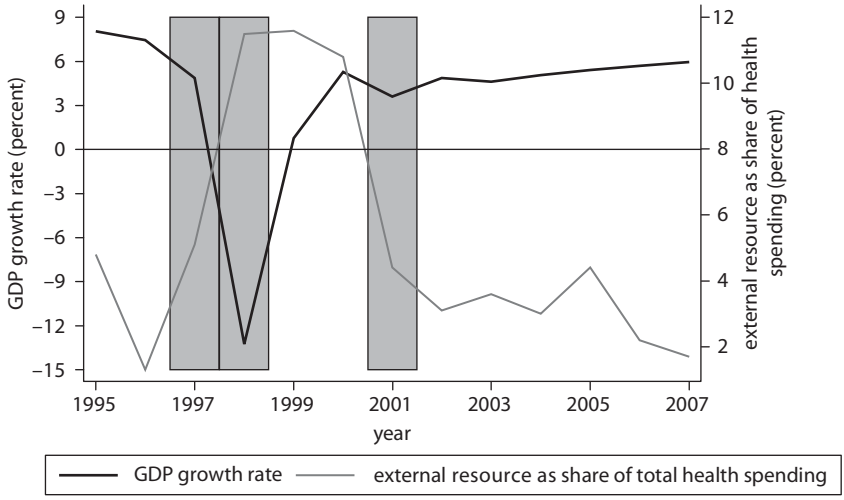
By parsing health resource flows by sources and use of funds, NHA data can also help assess the role of external sources in creating (or distorting) fiscal space for health in low- and lower-middle-income countries. An analysis by Shiffman (2008), for instance, highlights the fact that in many African countries with relatively low prevalence of HIV, donor commitments for HIV-related support exceed the national budget devoted to all other diseases and public health activities collectively, suggesting a possible skewing of priorities toward donor preferences. Analysis of NHA data can also help assess whether donor funds tend to create additional fiscal space or simply displace domestically sourced public expenditures on health. Prudent use of external resources is demonstrable in Indonesia, where analysis of NHA data shows that donor funding for health as a share of total health spending rose dramatically in an attempt to cushion the impact of the 1997–98 financial crisis (figure 1.2).

NHA data and micro components can be analyzed to assess whether public resources for health might need to be reallocated to improve technical and allocative efficiency (another critical source of fiscal space for health) to shed light on *equity*—Are resources going to areas where they are needed the most? Are the poor benefitting from public resource outlays—and *efficiency*? Is the country using resources so as to maximize health outputs obtained? Are countries spending too much for pharmaceuticals? NHA data can be analyzed to provide answers to these and other efficiency-related questions that can help feed into fiscal space assessments.

Value Added by NHA—Summary

This section has reviewed various aspects of the value that NHA data can contribute in making health financing more efficient and equitable. Weighed against these benefits, the costs of NHA activities are fairly small, especially if long-term capacity building and cost-saving efforts are taken into account (see chapter 4 of this book for details). For example,

Figure 1.2 GDP Growth and External Resources as Shares of Health Spending in Indonesia, 1995–2007



Source: IMF; WHO.
Note: Shaded bars are years when GDP growth declined by more than 1 percentage point.

the costs for the latest round of production and dissemination of NHA in Burkina Faso and Thailand represent 0.02 percent and 0.0006 percent of the respective governments' spending on health.[2] This rough calculation of cost, together with the potential benefits and cost-efficiencies that NHA data can help capture, suggests that investing in NHA activities is a cost-effective and "smart" investment for developing countries seeking to make better use of limited resources.

The Case for Institutionalizing National Health Accounts

Increasing awareness of the information and insights that NHA can offer policy makers and development partners has led to an ever-increasing number of countries producing and using health expenditure data. The practice of accounting for national health expenditures originated in the 1960s among OECD member countries. By 1980, only 15 countries were producing health expenditure information, still mainly OECD members; this number rose to 25 by 1990. In 2000, 87 countries had produced such information at least once, and 37 of these were producing it on a regular basis. By 2010, 130 countries had produced NHA information at least once,

with 41 countries producing it routinely through internationally accepted health accounting techniques.

The increased production of NHA data is in many cases thanks to the hard work of individual country champions who have designed and implemented the methodologies in the context of their respective countries. Wider NHA data production and use have also been facilitated by regional agencies and academia through knowledge sharing[3] and by international development partners through financial and technical support for these efforts. Use of NHA has become more widespread, transitioning from a resource-tracking tool used primarily in the richer countries to a tool used to inform policy in some of the poorest countries of the world.

Although there is consensus on the need to improve the availability, quality, and policy relevance of financial data on health, NHA have not been widely institutionalized in most developing countries. Even after the rapid gains made in recent years, use of NHA often remains a supply-driven exercise sponsored principally by donors and development partners rather than governments. Even where interest exists, governments have often been unable to sustain NHA production because of a scarcity of financial and human resources or of the data needed to produce health accounts regularly. In some instances, accounts have been produced but have not been widely used because the link to policy makers has been weak, thus limiting their potential effect.

Institutionalization, by its nature, is an ongoing process in which a set of activities becomes an integral and sustainable part of a formal system. Institutionalization can also be seen as a sequence of events leading to "new practices becoming standard practice" (Yin 1978). Merino Juárez and Raciborska (2008) developed a framework for assessing the institutionalization of NHA using the dimensions of a health information system as defined by the Health Metrics Network (HMN).[4] Supported by this prior work and based on feedback from about 40 countries, a working definition for institutionalization of NHA was developed as follows: Institutionalization of NHA is "routine government-led and country-owned production and utilization of an essential set of policy-relevant health expenditure data using an internationally accepted health accounting framework."[5]

NHA represent a global public good, and their use is certainly not limited to those who have produced them, nor does their use by one entity diminish their use by others. Thus, the cost of producing NHA is to be compared with the full value that national and international

stakeholders can potentially derive from the information. There are many positive externalities around this information that are yet to be completely realized, and in many cases, these externalities are not yet fully understood. Economic theory suggests that in the absence of formal mechanisms to ensure sustained production, NHA data will be underproduced by health information services, which may not be a desirable situation for countries or international development agencies.

Institutionalizing NHA fosters their greater use and demand and improves transparency and accountability in health systems. Institutionalization reduces the cost and time required for the NHA process and is critical for ensuring local ownership and improving demand. If countries manage the process themselves, they usually design and implement cost-effective programs that they perceive as being in their best interests. Institutionalizing NHA also fosters greater use and demand for NHA data as a tool for budgeting and tracking resources. The more that NHA findings are used by policy makers and policy advocates, the likelier it will be that demand for its routine production will rise.

Holistic Framework for Institutionalizing National Health Accounts

The working definition stated above is supported by a framework for the institutionalization of NHA, as depicted in figure 1.3. This framework is predicated on the belief that institutionalization goes beyond the recent progress made by several countries in the production of NHA. Instead, the framework proposes a complete process cycle, undertaken on a routine basis, with the clear purpose of ensuring that NHA inform the decisions of national policy makers.

Institutionalization, then, requires that a cycle of activities be embedded alongside health systems' planning and budgeting cycles. Further, it requires that a strategy be developed to translate data into insights that are relevant for policy making.

Stages in the NHA Process Cycle

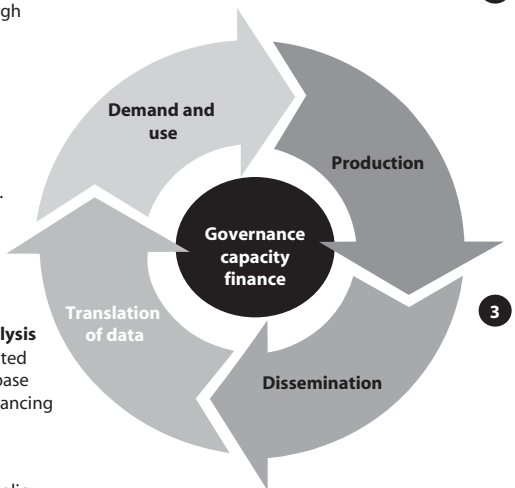
The stages in the NHA process cycle are as follows.

Demand from country leaders. In addition to the global phenomenon of growing demand for information and accountability, NHA provide country leaders with the evidence required to make difficult decisions on the equitable and efficient allocation of scarce health resources. Demand

Figure 1.3 Framework for Institutionalization of National Health Accounts

1 Demand and use
- As country leaders make tough trade-offs to ensure an equitable and efficient allocation of scarce health resources, there is a critical need for an evidence base.
- Regular use of NHA in policy making contributes to more sophisticated policy analysis.

2 Production, data management, and quality assurance
- sustainable production of data remains a major challenge in many countries, but capacities to produce health accounts have grown significantly in the developing world over the past decade.



4 Translation of data and dissemination of specific analysis
- The value of NHA data is limited unless used as an evidence base for more informed health financing decisions.
- Country ownership of the translation process allows countries to champion key policy insights, increasing the likelihood that the answers NHA data provide will be used to affect policy.

3 Dissemination
- Making the collected data available for analysis enhances transparency and, with experience, analysis and insights that inform policy.
- In countries that have institutionalized NHA, data are widely disseminated.
- Dissemination takes place on two occasions: (1) when the NHA tables have been produced, and (2) after the data have been translated into policy relevant briefs.

Source: Authors.

from country leaders is thus an essential stage in the NHA process. This demand can be further accentuated, strengthened, and sharpened when put in the context of broader health financing issues, through triangulation with other instruments and, as more information is made available, through appropriate translation of the information contained in the NHA, thus constituting a virtuous circle. The element of "utilization" in the above working definition of institutionalization responds to this stage in the process cycle.

Production of NHA, process management, and quality assessment. Major progress has been achieved in this part of the NHA cycle in recent years, and capacity to produce NHA has grown significantly over the past decade, especially in the developing world. Nevertheless, sustained production of NHA remains a major challenge. Depending on their context, countries may face issues around the ownership of the production, the appropriate level of sophistication to match the country's capacity and financial resources, and links between production and utilization. These issues are elaborated in later sections of this book.

Dissemination of NHA findings. Dissemination of information provided by NHA can be done both before and after data translation. Although dissemination of the NHA will itself enhance transparency (and, with time, greater analysis and insights), it is very important also to disseminate the translated data arising from the NHA. Dissemination provides the vital link between production and utilization and requires effective targeting and messaging.

Translation of NHA findings and dissemination of specific analysis. NHA findings can be complex and often require further analysis (sometimes using additional data sets and other tools and instruments) to provide essential information on socioeconomic and health financing issues that assist country leaders in making decisions and tracking progress toward health system goals. The process of translation achieves this by extracting the information from NHA and creating new documents useful for the specific needs of different stakeholders and policy makers.

Institutionalization of NHA will accelerate when the cycle of NHA activities starts with demand from policy makers who clearly articulate the key policy questions NHA can help inform. Demand from policy makers helps create an enabling environment for accessing

quality data and translating it into policy-relevant briefs. However, in many countries, the cycle starts with the production of essential data, which goes through incremental improvements that can be leveraged when there is political demand to achieve cost-efficiencies and more equitable spending.

For example, in the United States, NHA production began in the 1960s and has been produced routinely. In 1980, projections for a five-year period began, for which continuous improvements have been made, allowing for the 75-year projections made today. During the 1990s, NHA projections were increasingly integrated into Medicare trust funds to inform key policy issues of federal relevance. Recently, NHA data in triangulation with demographic data have provided evidence for analyzing the current financial crises and U.S. debt issues. The demand for and sophistication of NHA data have grown over time. Sustained production over time allowed economists and statisticians to make incremental improvements to generate and capture a "policy window" for improving efficiency and equity in health spending.[6] The U.S. example illustrates that demand for NHA may grow over time and that production need not start with demand for the data.

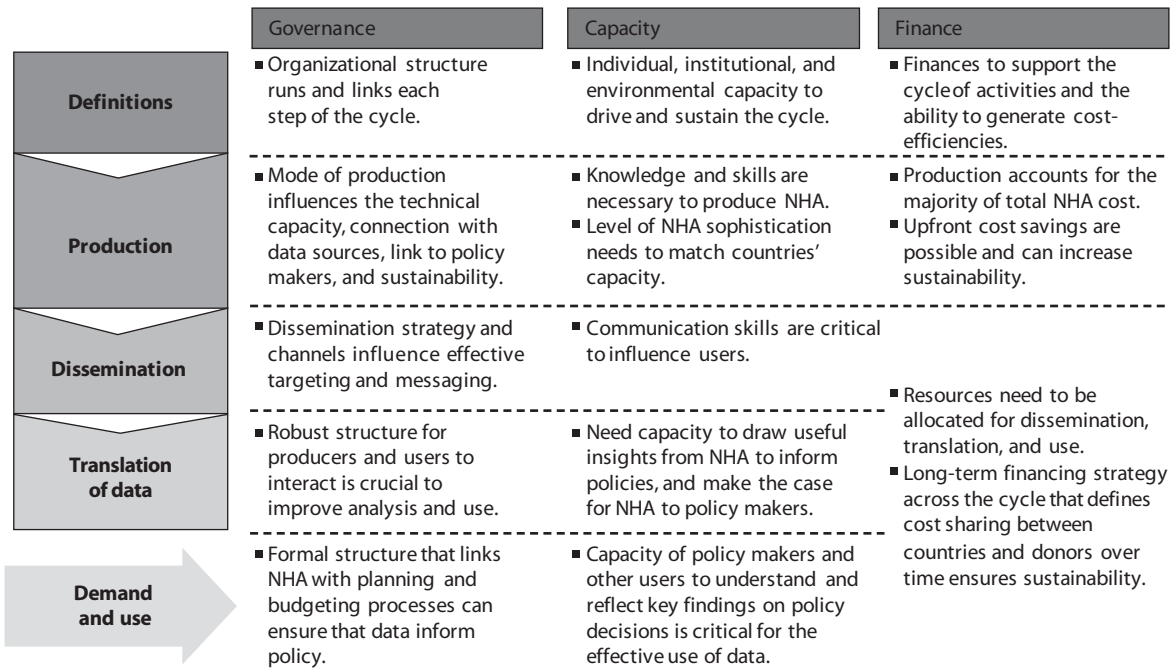
Core Elements of NHA Institutionalization

Three core elements—governance, capacity, and finance—form the heart of the framework presented above and underpin the institutionalization of all the stages in the NHA cycle. The interplay between these core elements and the process stages is illustrated in figure 1.4 and briefly addressed in the remainder of this chapter. Each of these core elements is then discussed in greater detail in the subsequent chapters of this book.

Governance. A well-defined governance structure offers a framework for engaging key stakeholders to run and link each step of the NHA cycle and to improve data collection, validation, and eventual uptake in decision making. Such a structure provides the platform to connect the various political, administrative, and technical stakeholders involved in the process and thus influences how each step in the cycle takes effect and is linked to the other steps. The institutional structure of NHA governance can take multiple forms:

- It can be established entirely within the MOH.
- It can be established within the MOH but with a formal structure that provides for multisectoral collaboration.

Figure 1.4 Critical Components in Managing the NHA Process Cycle and Their Influence on Performance



Source: Authors.

- Ownership can be provided jointly by multiple sectors of government.
- Ownership can reside outside of government.

Further, within these models of ownership, the actual production itself can be "housed" inside a government entity or outsourced to an external agency such as an independent research institution, a public school of health, or the national statistics office. There is no right or wrong model in all these choices—there are strengths and weaknesses in each model, and countries need to choose the one that best fits their institutional capacity, financial resources, and political context. Failure to consider governance in the NHA institutionalization plan, however, may mean that key opportunities in the health sector are missed. These aspects are elaborated in chapter 2 on governance in this book.

Capacity. The NHA process requires appropriate individual, institutional, and environmental capacity to drive and sustain the cycle. The level of sophistication of the NHA process needs to match the country's production and analytical capacity, as well as its capacity to apply the information for policy purposes. Each stage in the NHA process also requires specific skill sets in the NHA teams, which need to be matched with the skill sets available in-country or internationally and made available for effective completion of the task. These aspects are detailed in chapter 3 of this book.

Finance. The availability of adequate financial resources to regularly undertake the NHA process is key to sustaining NHA activities. It is important to put in place a long-term financing strategy as part of a country's plan to build capacity and achieve cost-efficiencies, based on a country's specific socioeconomic contexts. It is also appropriate to institute mechanisms for higher cost-efficiency, such as by reducing the reliance on specific surveys for the purpose of NHA alone and by integrating NHA data requirements with the country's regular reporting systems or with other planned surveys. These issues are elaborated in chapter 4 of this book.

In considering these three core elements of the NHA institutionalization framework, one must emphasize that although a country can borrow capacity and financing, country leadership and ownership of the entire NHA process are crucial. In other words, NHA can be institutionalized effectively in a country even in the absence of adequate domestic sources

of financing and capacity, but not in the absence of true ownership by that country.

Country Context and Its Implications for Institutionalization

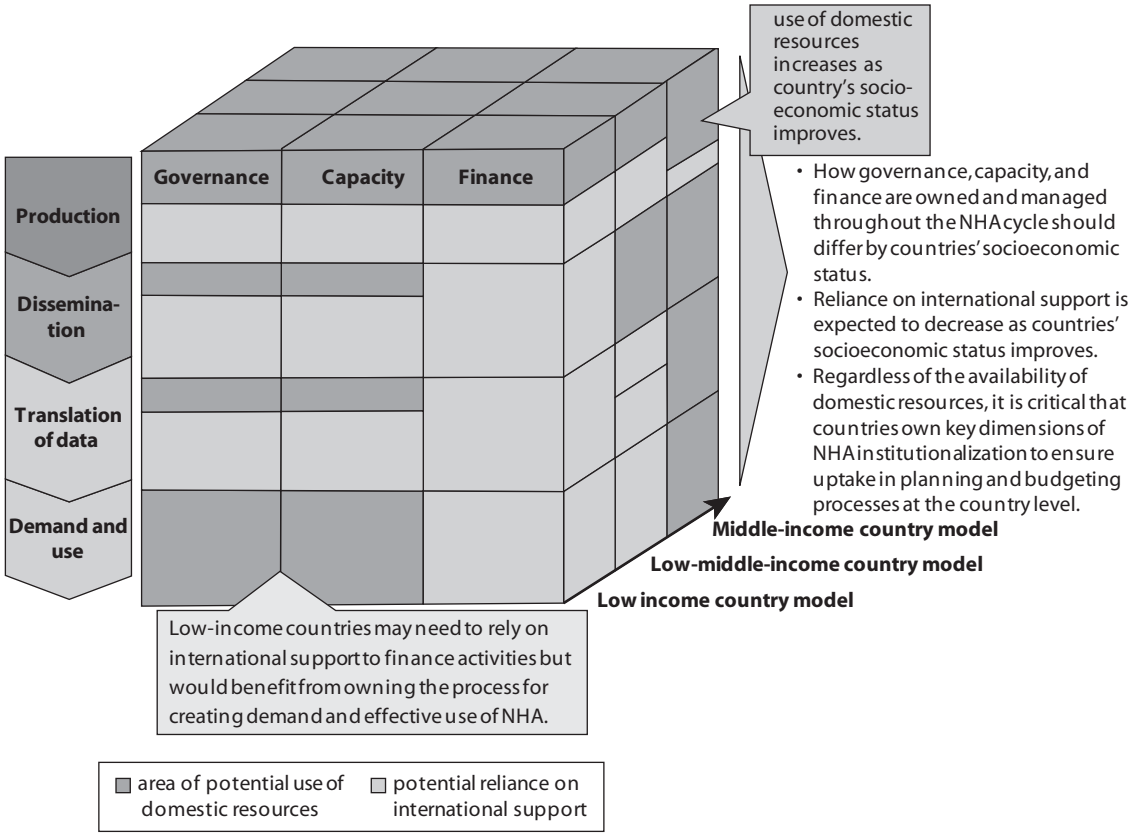
The four-stage process cycle and the three core elements discussed above represent two different dimensions of the institutionalization framework for NHA. The third dimension of the framework is represented by the country context, which has a multitude of implications for how NHA are institutionalized. Issues surrounding ownership, financial sustainability, and cost-efficiency of the NHA process can differ significantly at the country level. So can the capacity aspects of knowledge transfer, tools and skills, and links of NHA to a country's specific financial resources and its planning and budget priorities. One of the major influences for all these aspects of the country context is the resource environment. Therefore, we have used the differences in a country's income levels (applying the World Bank income classification of countries) to represent this third dimension, as illustrated in figure 1.5.

This three-dimensional model notes that one size does not fit all and that the country context is an important determinant for making appropriate choices for the institutionalization of NHA. In particular, as a country's economy matures and its skill sets grow, its capacity to afford recurring costs as well as undertake in-country production of NHA also increases. However, this ability to finance the NHA process domestically, and also the availability of domestic capacity to produce and translate NHA findings, is to be distinguished from country ownership of NHA, which needs to exist even when the process is externally funded or externally produced.

With the increasing complexity of health financing systems, countries moving from low-middle income to middle income may need to produce more sophisticated NHA information and to invest in more detailed NHA exercises to increase the sophistication of the accounts. As a corollary, in a low-income setting, an important step in the process is to match the complexity of the NHA exercise with the level of resources, thus prioritizing essential information for policy makers.

It is important to recognize that the NHA institutionalization process is dynamic and may continuously change over time. Modes of governance, capacity building, financing, and translation and dissemination may change depending on available resources, institutional capacity, changing political climates, policy priorities, and so forth. In addition,

Figure 1.5 A Three-Dimensional Model of Country Ownership of NHA Institutionalization



Source: Authors.

changes to any step in the NHA institutionalization cycle may affect other activities.

In the chapters that follow, this book synthesizes, organizes, and builds upon actual country experiences to provide a systematic framework and methodology that country policy makers can deploy for institutionalizing NHA in their own specific context.

Notes

1. See the Partnership for Maternal, Newborn, and Child Health and the Global Strategy for Women's and Children's Health, http://www.who.int/pmnch/activities/jointactionplan/jap_financialgapswg/en/index.html and http://www.who.int/pmnch/en.
2. Boureima Ouedraogo (director general, Information and Health Statistics, Ministry of Health, Burkina Faso), and Some Tegwouli (director, Studies and Planning, Ministry of Health, Burkina Faso), personal interviews, 2011; Walaiporn Patcharanarumol (senior researcher, International Health Policy Program, Ministry of Public Health, Thailand), personal interview, June 22, 2011.
3. *Regional agencies* is a term used in this book to define a partnership that helps coordinate the activities of countries in a specific region to promote a particular interest. In this case, this partnership would support activities related to NHA or health financing (or both). It would comprise the regional agencies of international organizations, such as the regional offices of the World Health Organization, the regional networks (in this case, mostly regional NHA networks), regional development banks, or regional institutions like the European Observatory on Health Systems and Policies (http://www.euro.who.int/en/home/projects/observatory).
4. See the Health Metrics Network, http://www.who.int/healthmetrics/about/en/.
5. See World Bank global consultation, "Promoting the Institutionalization of National Health Accounts," Washington, DC, October 20–21, 2011.
6. Daniel Waldo (senior economist, Actuarial Research Corporation), written communication, September 17, 2011.

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CHAPTER 2

Governance Structures for National Health Accounts

Governance reflects the organizational structure that supports and links each step of the National Health Account (NHA) cycle of activities. This chapter assesses the range of possible governance models for NHA, including the institutional location of NHA activities. It shows how the choice of governance structure is influenced by a country's income level, its available institutional capacity, and the location of the resources necessary to undertake the work. This chapter also considers the specific styles and modes of NHA production, which are in turn related to its governance structure. This chapter also discusses the importance of supporting the governance structure through legal and budgetary frameworks.

This chapter covers the following key points:

- The governance structure of NHA activities lies at the heart of the NHA institutionalization cycle. It is a vital element linking NHA production to the effective use of the data to inform policy decisions.
- Four governance models have been identified:
  - Ministry of Health (MOH)-led model. NHA production is mandated and owned by the MOH, with NHA data translated and used by the MOH to inform policy.

  - MOH-led with multisectoral collaboration model. NHA production is mandated and owned by the MOH, with NHA data translated and used by multisectoral teams.
  - Multisectoral model. NHA production is mandated and used by a multisectoral government entity.
  - Independent research agency model. NHA are produced by an independent research agency with limited or no government collaboration.
- The first three models are government mandated, however, one or several steps in the institutionalization cycle can be outsourced to an external organization, such an academic institution or an independent research agency. The unique feature with the forth model is the lack of ownership by government of any of the steps in the institutionalization cycle.
- Countries can choose their model given their financial and human resources and their political context, taking into account the unique strengths and potential challenges associated with the chosen model. Country experiences also suggest several lessons for selecting a governance model:
  - Countries can improve the sustainability of NHA production by locating this activity where technical expertise resides, including statistical, accounting, and health economics expertise.
  - Regardless of the model and production mode selected, ownership of the institutional home, especially in connecting analysis of data with policy use, is crucial.
  - A governance structure with multisectoral involvement is likely to facilitate access, transparency, and quality of data, which can lead to broader uptake of insights from the data to inform policy.
- An important aspect is for the governance structure to be supported by appropriate legal and budgetary frameworks that help countries ensure routine NHA data production, dissemination, and translation, and sustain NHA activities.

Identifying the Appropriate Institutional Home for NHA Activities

The governance structure of NHA—the institutional home—lies at the heart of the full institutionalization cycle. It is a core component in linking NHA production to the use of the data and their translation to inform policy (that is, the analysis that translates large volumes of data into insightful evidence that supports policy makers in their decision making).

Failure to consider governance in the NHA institutionalization plan may mean that key opportunities in the health sector are missed.

This NHA home differs from country to country and depends on the country context and its institutional, political, and fiscal capacity. Countries may consider different governance models in this regard; we have identified four models based on an extensive literature review and interviews with producers and policy makers in more than 40 countries, as well as with staff members of development agencies and donors, including World Bank staff members globally. These interviews have suggested potential strengths and challenges that apply broadly to each model. It is important to highlight the possible advantages and disadvantages of each so that countries can plan how to deal with these challenges in advance.

The institutional home of a country's NHA system may shift over time, and the availability of technical expertise will indicate the most logical place for NHA activities to be located. The Republic of Korea is an example: the institutional home for its NHA activities has changed over the years, according to the location of expertise for its production (box 2.1).

Box 2.1

Changes in Governance Structure in the Republic of Korea

Over time, Korea has experienced a series of changes to the institutional home for NHA. In the early 1990s, the institutional "home" for NHA was the Korea Institute of Health Services Management (KIHSM), predecessor of the Korea Health Industry Development Institute (KHIDI). This changed to the Korea Institute of Health and Social Affairs (KIHASA) Management (1998–2003) after joining the Organisation for Economic Co-operation and Development. As of 2004, however, NHA is housed at Yonsei University, commissioned by the Ministry of Health and Welfare. The shift in the home of NHA was due to the level of technical expertise at Yonsei. Whereas NHA tables were previously produced by the KIHSM and the KIHASA in a two-dimensional manner (that is, by financing and function), the NHA team at Yonsei has succeeded in constructing three-dimensional tables required by the System of Health Accounts (SHA). Currently, the official organization responsible for the production of NHA is the Ministry of Health and Welfare. The ministry contracts out the production of NHA to Yonsei University, which is responsible for producing the full set of NHA tables and matrixes.

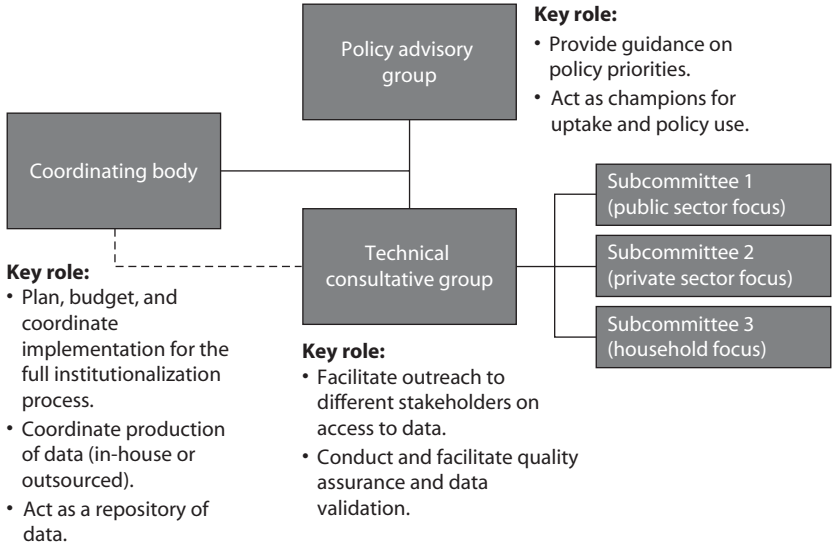
Sources: Jeong 2004; Jeong, Hyoung-Sun (professor, Department of Health Administration, College of Health Science, Yonsei University, the Republic of Korea), personal communication, August 11, 2011.

This section proposes a generic framework that highlights the various roles and responsibilities that make up the cycle of NHA activities. This is not a one-size-fits-all model but is rather meant to serve as an illustration for countries to consider when delineating the various tasks and responsibilities in institutionalizing NHA. Irrespective of the governance model chosen, it is important that responsibilities be clearly delineated and delegated. Following is an example of how roles and responsibilities could be structured into three main teams (figure 2.1):

- ***A coordinating body*** can be employed to plan, budget, and coordinate the full cycle of NHA activities. Activities of the coordinating body may include developing and managing the NHA budget, coordinating a data repository, developing an effective communication strategy, and managing the work of health accountants.

- ***A policy advisory group,*** facilitated by the coordinating body, could then potentially provide the critical link between NHA results and the uptake and use of data to inform policy. The policy advisory group would therefore be responsible for providing guidance on policy priorities and serve as ambassadors of NHA findings and insights to the

Figure 2.1 Illustrative Framework for Defining Roles and Responsibilities



Source: Authors.

respective organizations they represent, to ensure that these insights are applied to policy. Its members would liaise with key decision makers to ensure buy-in and ownership of the data and, most important, would provide them with access to essential information that can guide their decision making.

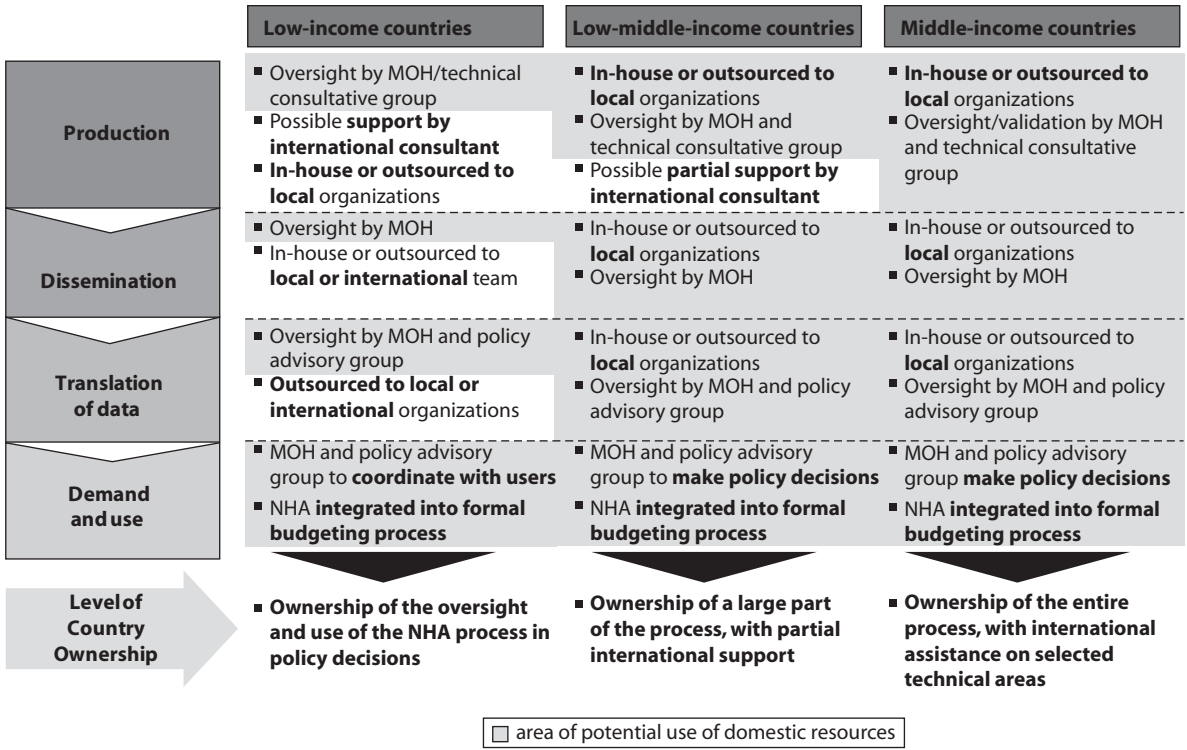
- ***A technical consultative group,*** also facilitated by the coordinating body, could provide guidance on the technical side—for example, reaching out to entities that provide data inputs for NHA production, validating and ensuring quality of the data, and so on. Within the technical consultative group, various subcommittees could interact directly with public, private, and household subcommittees to ensure the regular feed-in of the data needed for NHA production.

Countries often establish a steering committee to oversee and support NHA activities. In some settings, the committee serves as a policy advisory group, and in others, it serves as a technical consultative group. Although the name matters less, it is important for countries to clearly define the function of each entity and to ensure that a body is in place to provide guidance on policy priorities and serve as a link between NHA insights and policy (that is, the function of a policy advisory group).

The choice of governance framework may also be affected by a country's income level, its access to skilled resources, and the location of those resources, as shown in the following examples and in figure 2.2:

- ***Low-income countries***. In these countries, resources are usually scarce and institutional capacity is weak, so although production may be conducted in-house (by the MOH or local health council primarily in charge of the country's health system), NHA production may be outsourced to a local entity (within or outside of government, such as a university or other research organization), with possible support by an international consultant. Regardless of the mode of production, oversight of the production process is typically provided by the MOH through its NHA technical consultative group. Dissemination of data may also be conducted in-house or be outsourced to a local agency or international team, with oversight by the MOH. Similarly, the translation of NHA data into insights to inform policy could be placed outside government entirely and undertaken by a local or international agency. Translation may be coordinated by the MOH and NHA policy advisory group, which can coordinate with users of the data and integrate NHA

Figure 2.2 Examples of a Governance Framework for NHA Activities by Countries' Income Status



Source: Authors.
Note: *In-house* means by the Ministry of Health or health council primarily in charge of the country's health system.

findings into formal budgeting processes. Low-income countries generally own, oversee, and use NHA data in policy decisions.

- ***Low-middle-income countries***. In these countries, responsibility for key NHA functions may change slightly, particularly as low-middle-income countries have greater domestic resources at their disposal to dedicate toward NHA. In this case, NHA production may be conducted in-house (by the MOH or local health council) or outsourced to a local entity (within or outside government), with quality assurance and validation conducted by the MOH or NHA technical consultative group. Limited financial support may be available from international agencies to support production. Dissemination of data may also be conducted in-house or outsourced to a local entity within or outside government, with oversight provided by the MOH. Similarly, translation of NHA data into insights to inform policy could be conducted in-house or outsourced to a local agency, coordinated by the MOH and NHA policy advisory group, which can integrate NHA data into formal budgeting and planning processes and use the data to make policy decisions. Low-middle-income countries generally have ownership of a large portion of the full cycle of NHA activities with partial international support.

- ***Middle-income countries***. Governance may take a different approach in middle-income countries given the greater resources available to lead and own various activities in the full cycle of NHA activities. As a result, middle-income countries may handle NHA production in-house (within the MOH or local health council) or delegate this work to a local agency within or outside government (for example, a central statistical agency). Again, validation and quality assurance could be assumed by the MOH and the NHA technical consultative group. Similarly, dissemination of data could be conducted in-house or delegated to a local agency with oversight provided by the MOH. These same entities could play a role in the translation of insights from NHA data to inform policy, with the MOH and policy advisory group ultimately applying these insights to directly affect policy, and fully integrating NHA findings into formal budgeting and planning processes. These processes can ultimately culminate in strong ownership of and demand for NHA data at the country-level. Middle-income countries generally own the full cycle of NHA activities, with international assistance provided to address key technical areas.

Governance Models Compared

The four governance models identified above are considered here, along with their potential strengths and challenges (also summarized in figures 2.3 and 2.4).

Model 1. MOH Led with Little Collaboration

In this model, NHA production is mandated and owned by the MOH, with NHA data translated and used by the MOH to inform policy. Some countries host NHA activities strictly within the statistics, economics, or planning units of the MOH or outsource these activities to an external organization. Regardless of where the team that produces the NHA sits, data collection and production are overseen by the MOH. Management and quality assurance may be tasked to the same production team or a wider NHA technical consultative group within the MOH responsible for overseeing the team's work. Similarly, translation of data may be conducted by a policy advisory group before dissemination to and use by technocrats who can link the evidence to relevant health policies. This model typically entails demand for the data being driven by the government agency that acts as the institutional home for the NHA process. In this model there is little to no collaboration across agencies and ministries within government, with ownership of the full cycle of NHA activities largely remaining within the MOH.

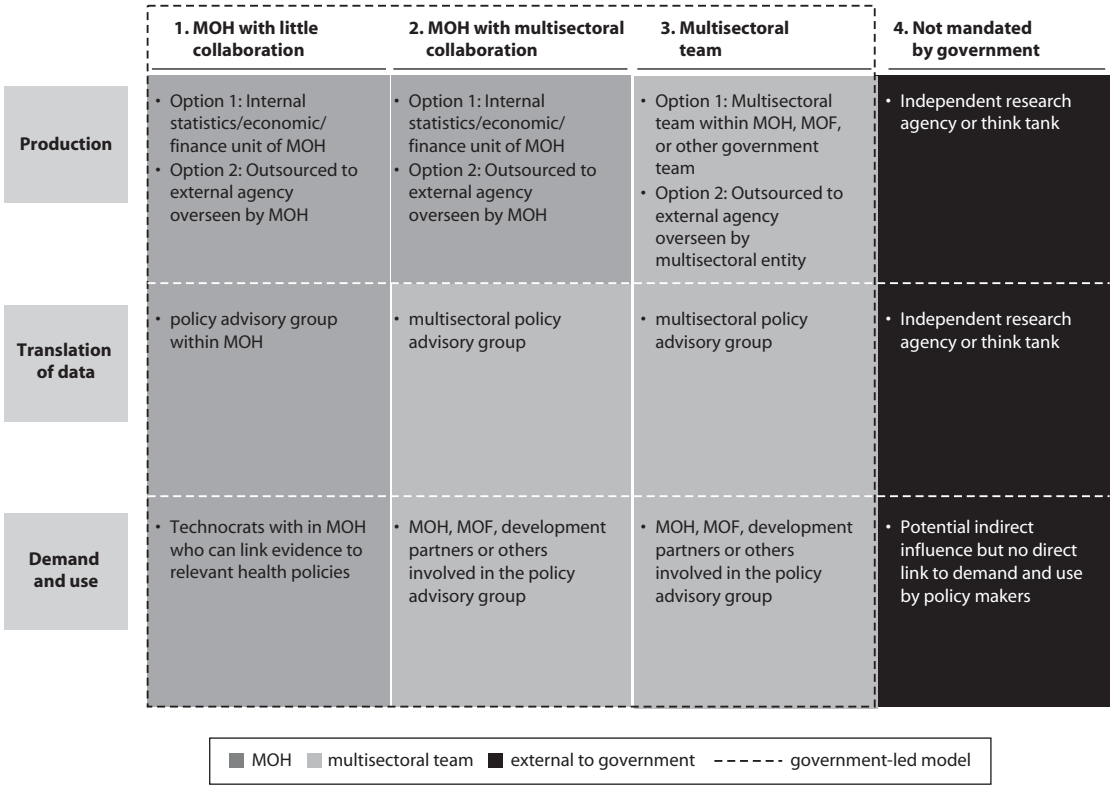
Potential *strengths* of this model are as follows:

- Data analysis is likely to reflect policies and priorities within the MOH, increasing the likelihood that insights from the data will be generated to inform health policy.
- Further, the team responsible for production will tend to have strong public health expertise.

Potential *challenges* of this model are as follows:

- Access to data from other relevant sources may be limited, thus creating only a partial picture of financial flows through the health system.
- The production team may lack the statistical or accounting expertise needed for NHA production.
- The analyses conducted for policy use are likely to be driven by the MOH, rather than by the needs of other agencies within government.

Figure 2.3 Governance Structures by Key Function



Source: Authors.
Note: MOF = Ministry of Finance; MOH = Ministry of Health.

Figure 2.4 Governance Structures: Possible Strengths and Challenges

	1. MOH with little collaboration	2. MOH with multisectoral collaboration	3. Multisectoral team	4. Not mandated by government
Potential strengths	• Can expect analyses to reflect policies and priorities within MOH, increasing the likelihood that data will inform policy • May have strong public health expertise among producers	• Can expect analyses that typically reflect policies and priorities within MOH, as well as broader government policies (e.g., MTEF), and other planning and budgetary processes • May have strong public health expertise among producers • Can expect analyses that leverage team members' connections to facilitate access to data inputs • May have ease of greater objectivity in use of data to inform policy • Ease of coordination with MOH as "anchor" or owner of the NHA process	• Can leverage broad/ multisectoral expertise of team to facilitate production • Can leverage team members' connections to facilitate access to data inputs for NHA production • May have greater objectivity in use of data to inform policy	• Can "showcase" results and prompt government to take action, particularly where there is lack of interest by government • May have strong technical or health expertise • May have greater objectivity in analyses to inform policy
Potential challenges	• May lack statistical or accounting expertise needed for production • May limit use of data to inform policy to MOH • May lack objectivity in selecting analyses and using results to inform policy • May limit use of data to inform policy to MOH focus on tracking resource flows within health sector alone, which may limit understanding of the total resource flows to health	• May lack statistical or accounting expertise needed for production • Requires multisectoral coordination • Need for strong champion in multisectoral coordination to effectively bring stakeholders together	• Possible lack of clear responsibility over production may be unclear • May be difficult to maintain oversight without strong leadership • Need for strong champion in multisectoral coordination to effectively bring stakeholders together • May have greater difficulty in linking results to policy without MOH "owning" or "anchoring" the process	• Lack of validation of results by MOH or other agencies providing data inputs • Lack of ownership by MOH or other government entity that may limit ability to affect policy • Lack of sustainability

Source: Authors.

- Use of data to inform policy may be limited to the MOH, thereby limiting the ability of other government agencies (for example, the ministry of finance) to use data to shape their policy. Likewise, this model tends to offer limited access to and validation of data outside the MOH, given the lack of collaboration and input from other agencies.

Model 2. MOH Led with Multisectoral Collaboration

This model involves NHA production mandated and owned by the MOH with NHA data translated and used by multisectoral teams. Another type of governance structure is one in which the institutional home of the NHA lies within the MOH, yet has multisectoral involvement through either or both an NHA technical consultative group or a policy advisory group that is both technically and politically savvy (also see box 2.2). Data collection and production are conducted in-house or outsourced with oversight provided by the team housed within the

Box 2.2

Governance through the MOH with a Multisectoral Steering Committee in Tanzania

Tanzania houses its NHA activities within the Ministry of Health and Social Welfare (MoHSW) and uses a multistakeholder working group to provide oversight. Data collection and production are conducted by a multisectoral technical team comprising a representative from the University of Dar es Salaam, the Ministry of Finance, and the National Bureau of Statistics. Management and quality reviews of data are the responsibility of a Health Financing Working Group that includes members of development partners, the Ministry of Finance, and the private sector and civil society to provide methodological guidance.

The working group is also responsible for commissioning specific studies deemed relevant to the health sector and for translating the data to inform policy. Dissemination occurs through the Joint Annual Health Sector Review, which involves all development partners and public and private entities; the MoHSW website; policy briefs; and international forums such as the International Health Economics Association. Local media will be used to disseminate future results. Multisectoral involvement in Tanzania means that there is a broader use of data from a wide range of audiences, including government, civil society, research institutions, and development partners.

Source: Mariam Ally (head, Health Care Financing Unit, Ministry of Health and Social Welfare, Tanzania), personal interview, July 7, 2011.

MOH. Access to and validation of data outside the health sector can be facilitated by the technical consultative group members. Management and quality assurance may also be provided by a multisectoral technical consultative group responsible for providing methodological guidance and supervision. This group may include representatives from the public and private sectors, universities, development partners, or research organizations. NHA translation and dissemination may occur through a multisectoral policy advisory group. Given the multisectoral involvement in this model, demand for NHA data may come from the MOH, ministry of finance, development partners, or the various stakeholders involved in the policy advisory group. Nevertheless, the MOH continues to anchor the NHA institutional cycle from production to use. In other words, the MOH coordinates the process and serves as the primary custodian of NHA activities. For example, in Japan, the MOH mandates and controls the production and use of NHA, but the core technical work in production is outsourced to an external technical agency, the Institute for Health Economics and Policy, in a very clear delegation. The example of Fiji is also illustrative (box 2.3).

Potential *strengths* of this model are as follows:

- Analyses are likely to reflect the policies and priorities within the MOH as well as in broader government policies and programs, for example, the Medium-Term Expenditure Framework [MTEF] and other priority planning and budgetary processes.
- The production team will tend to have access to public health expertise if the home of production lies within the MOH. Even if production is outsourced, the MOH remains the custodian of the production process.
- The production team can leverage the connections of its multisectoral group members to facilitate access to data for NHA production. This is particularly important in countries like the Seychelles, which leverages the diverse membership of its 18-person multisectoral team to secure inputs for NHA production. The multisectoral team forms part of the production team and acts as the liaison between the NHA producers and their respective organizations to provide data inputs when needed. The production team is a strong, capable entity committed to NHA production.[1] Yet the team is also responsible for generating insights from the data to inform policy.
- Placing NHA responsibility within the MOH with involvement from multiple sectors may ensure greater objectivity in the use of data to

Box 2.3

Fiji's MOH as Custodian of the NHA Process

Fiji was one of three pilot countries of the Asian Development Bank (ADB) and World Health Organization (WHO) project, Strengthening Evidence-Based Policy Making in the Pacific—Support for the Development of National Health Accounts. A full round of NHA data for 2007 and 2008 was produced with the help of an external consultant, but the NHA team prepared the current NHA data for 2009 and 2010 on its own, under the following setup. After an initial discussion to fully outsource NHA production to the Centre for Health Information, Policy and Systems Research (CHIPSR) at Fiji National University, it was decided that NHA activities be permanently housed within the newly established Policy Development and Analysis Division of the MOH to ensure that the ministry is the institutional custodian of the NHA process. Meanwhile, CHIPSR is responsible for collecting data, analyzing the numbers, developing NHA matrixes and tables, and writing the report. The final NHA report, however, is released by the MOH itself as an MOH publication. In addition to support from the key members of the MOH and CHIPSR, NHA production in Fiji is supported by the Fiji NHA committee with members from the National Planning Office, the National Statistics Office, and WHO. The committee supports data collection, especially data from the private sector, but also provides oversight of the NHA production process, ensuring that other government agencies are informed and take ownership as well. Several members of the NHA committee will also be involved in translating the numbers to inform policy, together with the Division for Policy Development and Analysis of the MOH.

Seeing the value added of the NHA process, the government of Fiji has since put aside funds from the MOH budget for the routine production and dissemination of NHA, ensuring further ownership. The main workshop for data dissemination to all private and public stakeholders was opened by the minister of health and used particularly to target the growing number of private providers in the system. The data also served as evidence and ammunition for the budget negotiations with the Ministry of Finance to advocate for a steady increase of public funding for health.

Source: Martina Pellny (technical officer, Health Services Development and Health Care Financing, WHO Office for the South Pacific), and Wayne Irava (coordinator, CHIPSR, Fiji School of Medicine, Fiji National University), personal interviews, August 22, 2011.

inform policy. As the sole custodian of the data and owner of the NHA process, the MOH is more likely to use the data and link it to health policy.

Potential *challenges* of this model are as follows:

- Using an internal method of production under this model, the production team may lack the statistical or accounting expertise needed for production.
- Multisectoral involvement requires coordination and perhaps a strong champion to succeed.

Model 3. Multisectoral Team

This model involves NHA production that is mandated and used by multisectoral government entities. The institutional home of the NHA process may also lie within the auspices of a multisectoral team comprising stakeholders within and outside government, including universities, the central statistics office, and research organizations. The multisectoral team is typically involved in the full spectrum of production activities, including data collection, production of NHA tables, management of the production process, and quality assurance. This assignment of responsibility occurs regardless of whether actual production is conducted by the multisectoral team or production is outsourced to an external organization overseen by the multisectoral entity. A multisectoral policy advisory group with similar representation may also be involved in setting the priorities for translation and dissemination. The multisectoral nature of this model is typically reflected in broad demand for data from a wide array of audiences, including the MOH, the MOF, development partners, civil society, academia, and others represented by the policy advisory group. Data validation and quality assurance may be provided by a multisectoral technical consultative group. Unique in this structure is the diverse ownership of the NHA institutionalization process. Whereas in model 2, multiple stakeholders play a role in guiding the analysis or the translation process, in this model the various stakeholders work as a single unit to serve as the custodians of the NHA process (see box 2.4).

Potential *strengths* of this model are as follows:

- A multisectoral governance model can leverage the broad, multisectoral expertise of its technical consultative group to guide and provide oversight of the production process.

Box 2.4

Governance through a Multisectoral Team in Jordan

Jordan uses a multisectoral governance structure for its NHA activities. Data collection and production fall under the High Health Council (HHC), headed by the Prime Ministry. The core NHA production team housed at the HHC is intensively guided and supported by a technical committee of 25 stakeholders from across government, the private sector, and academia. Management and quality assurance are the responsibility of the Technical Committee for NHA Data Interpretation. This unique setup actively involves a wide array of critical stakeholders and has contributed to greater access to and validation of data in Jordan's complex health system. The 2008/09 NHA report has been widely disseminated through the HHC website, to main universities, and to key individuals in the health system. In Jordan's five-year NHA institutionalization plan, the NHA lead is planning on complementing technical capacities with the use of a health economist to put NHA data in the context of health financing priorities and to produce policy briefs to support decision makers in a targeted way.

Source: Taher Abu El-Samen (director and secretary-general, High Health Council, Jordan) personal interview, 2011.

- It can leverage team members' connections to facilitate access to data input for production.
- A multisectoral governance model may contribute to greater objectivity in the use of data to inform policy, because various stakeholders "own" the institutionalization process.

Potential *challenges* of this model are as follows:

- Responsibilities for production may be unclear unless there is good coordination and delegation of tasks.
- Coordinating and overseeing the NHA process may be difficult without strong leadership and good communication across agencies to oversee the work.
- Multisectoral coordination requires a strong champion to succeed, as is the case in Jordan, where NHA institutionalization has been facilitated and led by a strong policy advocate who has realized the added value of having broad stakeholder support, continuous training, and

designation of a home for health resource tracking data at the cornerstone of policy making. Given that the MOH is not the custodian or owner of the NHA process, it may be difficult to translate insights from NHA data to affect health policy.

Model 4. Not Mandated by Government

This model involves NHA produced by an independent research agency with limited or no government collaboration. Some governance structures place the home of the NHA process entirely outside of government. The external entity may have limited or no formal links to government. In this model, data collection and production are conducted entirely by the external team, along with oversight, management, and quality assurance. Translation and dissemination of the data and its use to inform policy may, in each case, be the responsibility of the external team or government.

Potential *strengths* of this model are as follows:

- An independent research agency model may suggest greater objectivity in the execution and analysis of data.
- Through wide dissemination of results, externally mandated NHA activities can assist in holding country leaders accountable for their targets or in showcasing results to bring awareness of key findings to the government—particularly in areas where it has previously lacked interest.
- The independent research agency may also have strong technical or health expertise, depending on the personnel on the team.
- Minimal bureaucracy in the independent research agency may increase the speed of production.

Potential *challenges* of this model are as follows:

- An externally housed NHA process raises issues of sustainability, particularly if the external entity loses the interest or ownership of the NHA process.
- Results may fail to be validated by the MOH or other agencies providing data input.
- Without the ability to validate the data, this model is likely to result in limited ownership of the process by the MOH or other government entities, thereby limiting the demand for data to inform policy.

Beyond the Choice of NHA Governance Models

Regardless of the governance structure chosen, country experiences indicate the benefits of thinking through the following issues:

- Creating administrative agreements or mandates to institutionalize NHA production
- Delineating clear roles and responsibilities to avoid duplication of effort and optimize productivity, and creating clear links to other agencies that provide input and translate data to inform policy
- Building capacity within the institutional home to ensure there is a sufficient knowledge base to support operations at times of staff loss
- Establishing well-functioning technical consultative groups to ensure high-quality, credible data
- Establishing well-functioning policy advisory groups that can set priorities and act as champions for the use of data in policy

Country experiences also show that having stakeholders involved to provide access to and to validate the data is likely to increase data quality, transparency, and reliability. Further, links to policy makers help ensure that the use of the data is optimized and that insights from the data can be readily taken up by policy makers; this element generally requires an economist or other health expert (possibly one who also sits on the production team) with links to key decision makers, who can put NHA activities in the context of other broad health reform issues and analyses.

As countries' NHA systems become more sophisticated, geographic analyses and disease-specific subaccounts can also be produced, irrespective of the governance model chosen. However, this expansion requires building capacity at local levels. Decentralization is particularly important in countries where the ultimate impact of health financing interventions is intrinsically linked with decisions made at local levels. In the Philippines, the lack of sector-specific expenditure data at the local level made it difficult to analyze local spending for health. This prompted the development of local health accounts (LHAs). The LHA system was deemed necessary for setting targets and goals, monitoring progress, and promoting evidence-based decision making. As a result, the Department of Health spearheaded building local capacity to develop LHA systems. A national LHA team is overseeing the implementation of LHAs in the provinces, using an internationally accepted, standardized methodology.

Manuals and other guides have been developed. The effect of LHAs at the province level has been noticeable. For example, in Capiz province, LHA data became the basis for tripling the number of indigents enrolled in the National Health Insurance Program (Philippines Department of Health 2011).

Selecting Modes of Production for NHA Data

This section considers the NHA production stage in more detail. Production generally includes a set of activities involving data collection, management, quality assessment, and validation. The location of production may change over time, depending on where the resources needed for production reside. The mode of production may also vary depending on a country's income level and on access to and location of skilled resources. Strengths and challenges are associated with each mode of production. Production of NHA data may be undertaken in-house or external to the institutional home, regardless of the governance model selected (figure 2.5). Details of the production process—including data collection, data management, and data quality—are discussed in the *Guide to Producing National Health Accounts* (World Bank, WHO, and USAID 2003).

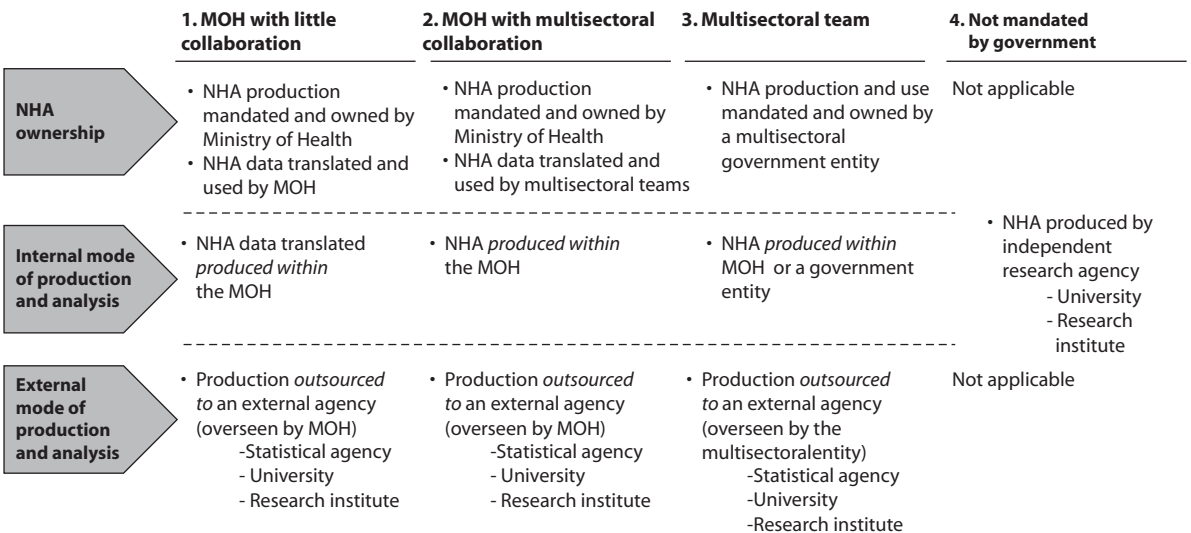
As already described in this chapter, some countries may decide to outsource production to agencies external to the institutional home, such as a national statistics bureau, university, research entity, or national or international consultants, depending on where the required skills reside. Meanwhile, several countries may decide to keep NHA production within the government agency responsible for NHA institutionalization, to ensure stronger ownership of the process and to facilitate the uptake of insights produced by the data to inform policy. In both of these instances, it would be important that the body representing the institutional home for NHA has a stake in the validation and quality assurance of the data.

Internal and external modes of NHA production, with their potential strengths and challenges, are considered next (figure 2.6).

Internal Production

Internal production simply means that NHA production is done in-house (for example, within the MOH or within a government entity) rather than outsourced to another entity (for example, statistical department outside government, school of public health, research organization, national or international consultants, or think tank).

Figure 2.5 Two Modes of Production within the Four Governance Models



Source: Authors.

Figure 2.6 Modes of Production Compared

	1. Internal mode of production	2. External mode of production
Potential Strengths	• Has greater control over production processes • Has easier access to data inputs needed for production • Can expect analyses to reflect policies and priorities within the institutional home of NHA activities • If produced within government, can leverage linkages with other formal processes (e.g., Medium-Term Expenditure Framework) • may be able to realize cost-efficiencies through synergies between NHA production and other data instruments/sources; build on existing surveys • Can easily make results available to institutions and people who make health policy • Allows representatives from different agencies within the organization to contribute to NHA and collaborate without major difficulties	• Has greater objectivity in production • Has greater control over production processes • Has clear responsibility over production • Greater likelihood that political and institutional interference is minimized, so that work can continue without significant upheaval resulting from political and institutional changes (e.g., staff turnover due to promotions or transfers) • May have existing and more in-depth skill sets in statistics and accounting
Potential Challenges	• Has less objectivity in production • Is more prone to bureaucratic bottlenecks • Has greater likelihood that political and institutional interference may impede production, resulting in high staff turnover • May compete for funding with other internal agencies	• May have limited access to data inputs needed for production • Cannot leverage linkages with other agencies within the same institutional home • May not be able to realize cost-efficiencies through synergies between NHA production and other data instruments/sources; build on existing surveys • Results may be less readily available to institutions and people who make health policy • May have less readily available results to collaborate with other agencies with different expertise or insights

Source: Authors.

Note: Internal refers to production within MOH or within a government entity. External refers either to an entity outside government but with oversight by government (for example, the MOH or a multisectoral team) or to production outsourced entirely to an independent research agency.

In terms of *strengths*, internal production may allow for greater control over the production process, with greater ability to validate and review data. There is likely to be easier access to the data input needed for production, as both the inputs and the production processes are conducted within the MOH or other government entity. Analyses are more likely to reflect policies and priorities within the institutional home of the NHA process. Internal production allows NHA processes to leverage links to other agencies or ministries within the same institutional home. This facilitates data production but also strengthens the NHA connection to other data sources and instruments (for example, an MTEF). Burkina Faso serves as an example in which NHA data are used regularly in conjunction with household expenditure surveys and the Integrated Expenditure System, which are also used for the MTEF and Marginal Budgeting for Bottlenecks tools. This integrated approach ensures that the utility of tools like the NHA can be translated in ways that reach policy makers. It also creates greater buy-in and ownership by the MOF and other finance-related entities, given the NHA links to broader budgeting and planning issues highlighted by the MTEF. In this way, countries may be able to realize cost-efficiencies through synergies between NHA production and other data instruments and sources, and to build on existing surveys. Internal production helps ensure that results can be made available to institutions and individuals who inform health policy. Finally, internal production allows representatives from various agencies within the MOH or within government to contribute to the NHA process and collaborate without major difficulties.

In terms of potential *challenges*, an internal mode of production may result in less objectivity in the way data are produced and the assumptions made in their analysis. This challenge underscores the need for a standardized NHA methodology. Furthermore, internal production—particularly where solely reliant on domestic budgets—also requires that the NHA process compete with other items on the government agenda for funding. Internal production may be more prone to bureaucratic bottlenecks, shifts in the institutional and political climate, and so on. This stress may result in high staff turnover, which is frequently found on the production team.

Jordan is an example of a country that has dealt with this issue by forming a multisectoral team within the institutional home of the NHA system. The NHA data are produced by the core NHA team within the High Health Council (HHC), which consists of about 25 stakeholders (including three individuals responsible for production) from government, the

private sector, and academia. To facilitate the exchange of information and provide a single, central location for quality assurance of the data, Jordan has also established a centralized data collection unit for NHA within the HHC. Further, the country has mandated the routine production of the data and roles of relevant NHA stakeholders through a royal decree. These arrangements have allowed Jordan to maintain the objectivity of data and a high level of organizational commitment to NHA production.

External Production

External production (that is, production outside the institutional home) may be conducted at a statistical department outside government, a university, or a research entity. Again, there are potential strengths and challenges to this approach. Countries such as Georgia, Japan, Korea, Mali, the Philippines, Rwanda, and Serbia are all examples of this outsourced model, albeit through different arrangements.

As to the potential *strengths*, there may be greater objectivity in production if that production is outsourced to an independent agency—for example, a school of public health or a research entity. This also ensures greater control over production processes by the external entity (that is, without interference from government or a multisectoral team) and clear responsibility for production. Furthermore, there is a greater likelihood that political and institutional interference is minimized, so that work can continue without significant upheaval (for example, staff turnover) resulting from political and institutional changes. In addition, an external agency may have a greater pool of human resources and production expertise that avoids interruption of routine production.

Potential *challenges* in outsourcing production also must be considered. First, without proper coordination, the outsourced production entity may have limited access to the data input that is needed for production. Second, in the absence of strong links between producers and users in an outsourced production model, data may be less readily available to or accepted by institutions and individuals who design health policy. Korea overcomes this challenge by leveraging strong networks between the NHA focal point and the influencers of policy. Production is outsourced to the team at Yonsei University (see box 2.1), yet there is regular uptake of the data to inform policy debates, given that the person assigned as the focal point who leads the production team has strong links to the Ministry of Health and Welfare and other high-level policy commissions because of his previous work experience at the ministry and his current advisory

role. The current focal point is a member of the Committee for Health Insurance Policy, the highest committee, which determines the contribution rate and fee schedule in National Health Insurance—meaning that there is an opportunity for NHA results to be publicized and shared broadly by a well-informed audience and actively fed into the health policy–making process.[2] Along those lines, most countries would benefit from strong communication and links between the production entities and government or other multisectoral entities chosen to coordinate and make use of the data.

These general strengths and potential weaknesses are context specific and will often vary depending on a country's political, economic, and social climate.

Building an Enabling Environment to Support the Governance Structure

Country experiences suggest that the existence of a legal and budgetary structure is an enabling environment that gives a clear mandate of the chosen governance model and facilitates the activities of the NHA team. Without that structure, NHA teams often rely on personal relations and ad hoc requests to obtain information from other government departments, such as the comptroller general of accounts that manages data on audits of government expenditures. This lack of access makes timely production and translation of NHA data difficult.

Two dimensions of the enabling environment have been highlighted in country case studies:

- **Stipulation of a budget line item for NHA activities.** This aspect offers a clear mandate to ensure capacity for overseeing NHA activities by the entity that has been allocated responsibility as the institutional home. A budget line should improve sustainability of these activities. Several countries, such as Ghana, have developed a formal budget line but are still struggling to ensure that the allocated budget is disbursed. In an era when country ownership of key dimensions of the NHA institutionalization process is core for long-term sustainability of activities, it is important that governments honor their commitments to fund or partially fund recurring NHA activities. Generally, by taking a stake in the financing of activities, they also generate higher demand for the outputs, which in turn should facilitate the links between data and policy-relevant insights.

- **Legislation of NHA activities.** Several countries, such as Georgia and Jordan, mandate the routine production of NHA—including the collection of data inputs from public and private sources needed for routine production, and the delineation of work plans and roles of relevant stakeholders. This legislation both clarifies the roles and responsibilities of stakeholders and provides the selected institutional home with legitimacy in negotiating for the data collection, translation, and advocacy for policy use.

Other factors that play a part in shaping an enabling environment for NHA institutionalization include, for example, the human resources and data systems environments. The need to strengthen these environmental factors over the long term is discussed in chapter 3 of this book.

The governance model and its legitimacy will determine a country's ability to benefit from the range of advantages that access to routinely produced NHA data can provide. Careful attention should be given to the selection of the governance model and the enabling environment around it, taking into account a country's particular context and socioeconomic reality. In countries where NHA activities are supported by development partners, the design of the governance model and the enabling environment should be a critical part of a long-term plan to sustain and optimize use of the answers that NHA activities can provide. Country experiences provide several insights that can guide the selection of an appropriate governance model and production mode. These insights are discussed in some depth as follows:

- Countries can improve sustainability of NHA production by locating production where statistical and accounting expertise reside. NHA activities require a production team with the requisite skills in national statistics and accounting practices, knowledge about the nation's health system and health policies, and experience in working with data input and information generated by different entities in the health system. Ultimately, this effort requires a team that is quantitatively oriented, with a willingness to question numbers and look for and consider alternatives to existing data sources. Such a system also entails having a coordinating body to act as a repository for the data. In resource-constrained environments, many countries have strengthened their production capacity by locating technical production where the statistical and accounting skills exist. For example, in the Philippines, NHA data are currently produced by the National Statistical Coordination

Board (NSCB) that was created by a presidential executive order in 1986 to serve as the highest statistical coordinating and policy-making body in the country.[3] The expertise of the NSCB staff ensures that it can readily understand, analyze, and release the data once they are received. The NSCB also produces the National Income Accounts, placing the NHA system at the hub of the country's statistical system and expertise (Racelis 2008).

- Regardless of the governance model and the mode of data production, it is critical to ensure that the institutional home feels sufficiently comfortable with the data to ensure an effective link to policy. Countries with strong ownership over the NHA process have greater capacity to link NHA data to insights that inform policy. For example, Turkey uses a shared governance model for NHA data wherein one entity is responsible for data collection (the Turkish Statistical Institute) and another entity provides technical support and reviews the data (Turkish Ministry of Health's affiliated School of Public Health). Technical experts in both organizations subsequently review, validate, and analyze the NHA results. Strong dissemination of results and information sharing have facilitated the translation of insights from the data to inform policy. In contrast, several countries with external modes of production struggle to link NHA data with policy priorities. In Serbia, for example, NHA activities fall under the purview of the Republican Institute of Public Health, commissioned by the Ministry of Health to produce NHA data. However, there is still limited awareness of NHA data and their importance within government, particularly outside the MOH.

- Multisectoral involvement can improve access to and quality and transparency of data and can facilitate the uptake of data by policy makers. NHA production requires access to large volumes of data input from public, private, and external sources that are then analyzed through a standardized methodology. Multisectoral involvement can facilitate the collection of this input. In Ghana, for example, the planning for NHA institutionalization takes place within the realm of the MOH, with the support and guidance of a technical consultative group, which plays a critical role in accessing and validating data. Further, multisectoral involvement can enhance the translation of NHA data in a way that answers the policy questions of multiple users, draws attention to NHA findings from multiple stakeholders, improves data objectivity, and ultimately strengthens the link with policy making. In Jordan,

NHA activities are conducted by a 25-person team comprising individuals from the public sector, the private sector, and academia. This team receives annual refresher trainings on NHA processes, and weekly discussions among NHA team members are held to highlight the current state of NHA production, new approaches, next steps, and key decisions. Jordan's two most recent NHA rounds were part of a broad effort to integrate activities to serve decision making, including through strengthening of capacity building and dissemination.

- A supportive legal environment can facilitate NHA production and contribute to institutionalization. A strong legal foundation can ensure that data are routinely produced and that regular funds exist to support both production and dissemination of data. Several countries, including Georgia and Jordan, have issued decrees mandating the routine production of NHA data, along with a clear specification of the roles and responsibilities of the relevant NHA players. This commitment, in turn, creates an environment with a strong political commitment to institutionalize health resource tracking efforts.

Notes

1. Jean Malbrook (economist, Ministry of Health, Seychelles), written communication, 2011.
2. Hyoung-Sun Jeong (professor, Department of Health Administration, College of Health Science, Yonsei University, the Republic of Korea), personal communication, August 11, 2011.
3. NHA data were initially produced in the early 1990s solely by academics at the University of the Philippines School of Economics. The NSCB has been directly involved in the production process since 1995 and served as the institutional home of NHA activities since 1999. The NSCB has since undertaken a thorough review of the initial NHA methodology and parameters (Encarnacion 2011).

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CHAPTER 3

Building Capacity to Sustain National Health Accounts Activities

This chapter considers approaches for building capacity to accelerate and sustain the National Health Accounts (NHA) cycle. It shows how the capacity building of individuals can target gaps in the NHA cycle. It discusses efforts to build institutional capacity not only to protect countries from losing production knowledge and skills, but also to ensure that countries are able to link NHA data to their planning processes. Further, the chapter considers how an enabling environment for an NHA system can be nurtured in a country, including through strengthening the policy, data, and human resources (HR) environments. Finally, the chapter emphasizes "learning by doing" as an effective approach for building capacity.

This chapter covers the following key points:

- The production, dissemination, and effective use of NHA depend on a skilled workforce equipped to produce work of high technical quality and empowered to coordinate the full NHA cycle.
- Although capacity building in many countries has been focused on a few key production staff members, a comprehensive approach is critical to build capacity for the complete cycle of data production, dissemination, translation, and use.

- The target of capacity building—that is, those capacities that need to be built—should be defined on the basis of each country's socioeconomic status; existing capacity; and ability to develop, attract, and retain the required workforce.
- Countries can build their institutional knowledge and skill base by ensuring that the NHA process is standardized and well documented and by building tools to facilitate the process.
- Building an institutional mechanism whereby decision makers regularly gain access to the insights that NHA data can provide would help bridge the gap between production and use.
- Countries that have moved toward full ownership of the NHA cycle have often done so through an open-book, learning-by-doing approach, either without external consultants or with a clear phasing out of external technical assistance. External consultants can be valuable to serve as a source of knowledge and to facilitate rather than implement the NHA process.

Focused Capacity Building to Accelerate and Sustain the NHA Cycle

Production, dissemination, and effective use of NHA depend on access to a skilled workforce equipped to produce work of high technical quality and empowered to effectively coordinate the links between the steps of the NHA cycle. Capacity constraints are common, however, especially in health systems where statisticians, health accountants, and health economists are scarce. In addition, skilled workers' efforts are often fragmented by competing priorities.

Building skills to lead NHA activities is not directly correlated to the number of NHA rounds that a country has undertaken. In countries where NHA production has been funded by donors and conducted by external consultants with insufficient focus on the transfer of knowledge and skills to local staff members, little ownership of the data, and thus little use, has been made at the country level. Several countries have gone through multiple rounds of production, yet they still do not possess the institutional skills to produce a next round of NHA data. Rwanda, for example, even after five NHA rounds, struggled to build and retain the capacity to produce NHA and translate them into policy implications; production and translation were all driven externally by consultants, and knowledge was lost with frequent turnover. To deal with this, the country

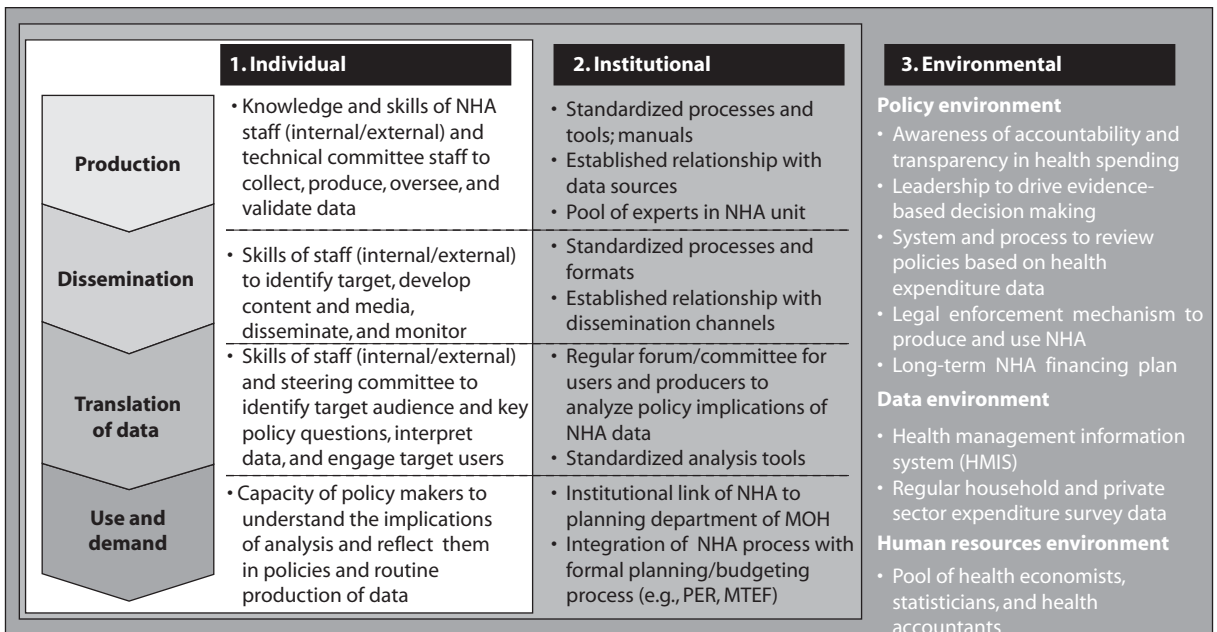
decided on a governance model in which NHA activities are overseen by the Ministry of Health (MOH), with production outsourced to the National University of Rwanda School of Public Health. The school pools statisticians and public health experts, with some support from external consultants. The new staff members from the university are forming a group of experts to work on the production of NHA data. The group is set up in such a way that it will be able to help new staff catch up rapidly (Rajkotia et al., forthcoming). In contrast, Georgia is an example that shows that the building of skills during the early rounds of NHA activities is possible. Its local NHA team learned the skills during the country's first NHA round. The team was able to produce its second NHA round with minimal support from external consultants, thanks to an explicit strategy to phase out external support after the first round of production.

Building capacity beyond the individual statistician or health accountant requires an approach that addresses three factors: individual, institutional, and environmental (figure 3.1):

- First, countries need skilled and responsible *individuals* to produce, disseminate, translate, and optimize the use of NHA.
- Second, the knowledge and skills required to run each step in the NHA cycle need to be held in the responsible *institutions*, which must retain knowledge and prepare for normal staff losses. Having a robust system, with standardized processes and tools to collect and use NHA data for policy, can improve and sustain the efficiency and effectiveness of the NHA cycle.
- Third, broader contextual factors such as the policy, data, and HR environment affect the efficiency and effectiveness of the NHA cycle. Many aspects, such as an awareness of the accountability at the policy level and the robustness of health management information systems, are not directly controllable within the ambit of NHA activities, but understanding the country context will be important to ground a long-term capacity-building strategy for the country-specific NHA situation.

The target of capacity building (that is, whose and what capacity needs to be built) should be defined on the basis of each country's socioeconomic status and existing capacity. For example, some low-income countries may decide to outsource production to external institutions while choosing instead to focus their capacity-building efforts on the use of NHA data to improve policies and the oversight of the quality of the consultants'

Figure 3.1 Example of Three Layers of Capacity in Running the NHA Cycle



Source: Authors.
Note: MTEF = Medium-Term Expenditure Review; NHA = National Health Accounts; PER = Public Expenditure Review.

work. In contrast, some middle-income countries may choose to own the entire NHA cycle without relying on external consultants. It would be important for countries to ground their capacity-building strategy on their access to skilled professionals in the country.

Countries that have moved toward full ownership of the NHA cycle have often done so by an open-book, learning-by-doing approach, either without external consultants or with a clear phasing out of external technical assistance. These countries have started small and grown in sophistication over time as capacities have become perfected. National NHA champions can initiate and accelerate the learning process. Experience shows that it is fundamentally important (a) to build capacity beyond the individual in order to form the required skills for sustaining and optimizing the outputs of the NHA cycle; (b) to standardize processes and tools so that sophistication of the process can grow over time; and (c) to build and tailor capacity to the specific needs of the country context. A comprehensive diagnosis of existing capacity, with knowledge of the possible approaches from other countries' experiences to address the key capacity gap, could help countries develop a realistic capacity-building strategy.

Individual Capacity Building Targeted at Critical Gaps in the NHA Cycle

In many countries, capacity building has been focused on building the capacity of a few staff members for producing NHA. For example, in India, although producers receive training, few formal discussion forums for potential NHA users have been available and those hosted have been poorly attended. As a result, the link between NHA production and its potential input to broader health financing issues has not always been made. NHA processes are, however, a complete cycle of data production, dissemination, translation, and use, and the capacity of key stakeholders at each step of NHA activities needs to be built comprehensively, especially because, as the Indian case suggests, a major capacity gap has been identified in many countries in the use of NHA.

Table 3.1 exemplifies the capacities needed to manage each step of the NHA cycle. The process by which a country may prepare a targeted capacity-building strategy includes defining (a) which steps in the NHA cycle that need to be prioritized, (b) what capacity in the selected step needs to be addressed, (c) whose capacity needs to be built or leveraged, and (d) how it can be built.

Table 3.1 Capacity Necessary to Run the NHA Cycle

NHA steps (where)	*Tasks (what)*	*Necessary skill sets to run the tasks (what)*

Production	*Phase 1—Planning and scoping*
	• Engage National Health Accounts (NHA) policy advisory group or other governing body in a discussion about scope and timeline of the NHA cycle.
	  ◦ Define key policy questions that NHA can help answer, and identify data required to respond to the questions.
	• Identify key stakeholders and partners.
	• Create a local NHA team.
	• Mobilize resources for NHA activities.
	Phase 2—Launch
	• Train NHA technical team and data collectors.
	  ◦ Introduce NHA methodology, develop work plan, and identify roles and responsibilities.
	• Facilitate official launch event.
	Phase 3—Data collection
	• Define a survey sample for respondents.
	• Develop customized surveys for institutions.
	• Train data collectors.
	• Send out surveys and follow up with respondents.
	• If including household survey, survey individuals' houses for an extended period of time.
	• Collect secondary data.
		• Technical skills: Develop knowledge of NHA, subaccounts, survey instruments, sampling methods, NHA analysis, report writing, and so forth.
		• Communication and facilitation skills: Engage policy advisory group in discussion about what policies the NHA can inform; create stakeholder buy-in; send frequent updates about progress of the NHA process; and, after analysis is done, discuss policy implications of NHA findings with the policy advisory group and relevant stakeholders
		• Leadership and management skills: Lead NHA team and leverage diverse technical skills of team members, and ensure that the commitments about timelines and deliverables are met.
		• Budgeting and fundraising skills: Ensure that there are sufficient financial resources for completing the activity, and mobilize additional resources if necessary.

	Phase 4—Data analysis and validation • Data entry • Data cleaning and compilation • Mapping of the data to NHA codes • Production of NHA matrixes • Validation with technical team and key stakeholders	
Dissemination	• Provide training for technical team on effective dissemination. • Determine relevance of findings for country's health policies. • Determine target audience for report. • Write report. • Develop tailored policy communication tools (brochures, slide presentations, and so forth). • Present findings to key stakeholders. • Engage media and broader health community. • Make NHA report and data freely available.	• Communication skills: Identify key messages and audiences, and design suitable dissemination products. • Strong writing skills: Be able to write meaningful reports and briefs, summarizing key points without losing important details.
Translation	• Identify key users of the NHA data. • Identify key financing questions of the key users. • Develop analysis to address the key financing questions, including identification of non-NHA data (macroeconomic, health status, household surveys). • Review the data analysis with users (ensure the analysis answers key questions).	• Knowledge of health system and policy priorities: Apply an intimate knowledge of country's health system and policies. • Analytical skills: Be able to identify key questions that the NHA data can clarify; combine NHA data with other data sources to undertake meaningful analysis.

(continued next page)

Table 3.1 *(continued)*

NHA steps (where)	*Tasks (what)*	*Necessary skill sets to run the tasks (what)*
	• Revise the data analysis. • Develop tailored policy communication tools (brochures, slide presentation, and so forth)	• Writing and communication skills: Be able to disseminate findings from the analysis in useful ways. • Public relations skills: Have a strong relationship with government and other stakeholders; seek audience for relaying findings.
Demand/ use	• Meet the demands of government, partners, and civil society organizations who use NHA findings and NHA-based analysis to guide policy making, planning, and performance assessments. • Meet the demands of the users of NHA—that NHA exercises be conducted on a routine basis.	• Knowledge about NHA: Widespread awareness should exist about NHA findings and the quantities that they measure. • Advocacy skills: Stakeholders should be able to effectively demand that ministries of health produce NHA as a matter of routine.

Sources: PHRplus Project 2004; Lara Lorenzetti, Nirmala Ravishankar, Catherine Connor, and Douglas Glandon, Health Systems 20/20 Project (Abt Associates, Bethesda, MD), 2011.

What capacity should be addressed and whose capacity should be built or leveraged depend on the country's ability to develop, attract, and retain the required workforce. For instance, low-income countries may decide to rely on external consultants to produce and disseminate NHA while focusing the country's resources on managing the links between the production of the accounts and the use of NHA to inform policy decisions at the country level. The approach to capacity building is likely to change as countries' economies grow. Figure 3.2 suggests the various capacities needed in the NHA cycle according to the socioeconomic status of different countries. More local resources can be leveraged as a country's socioeconomic status improves.

Institutional Capacity Building

Several critical steps can be taken to strengthen a country's institutional capacity, both to produce NHA data and to translate the data into policy briefs.

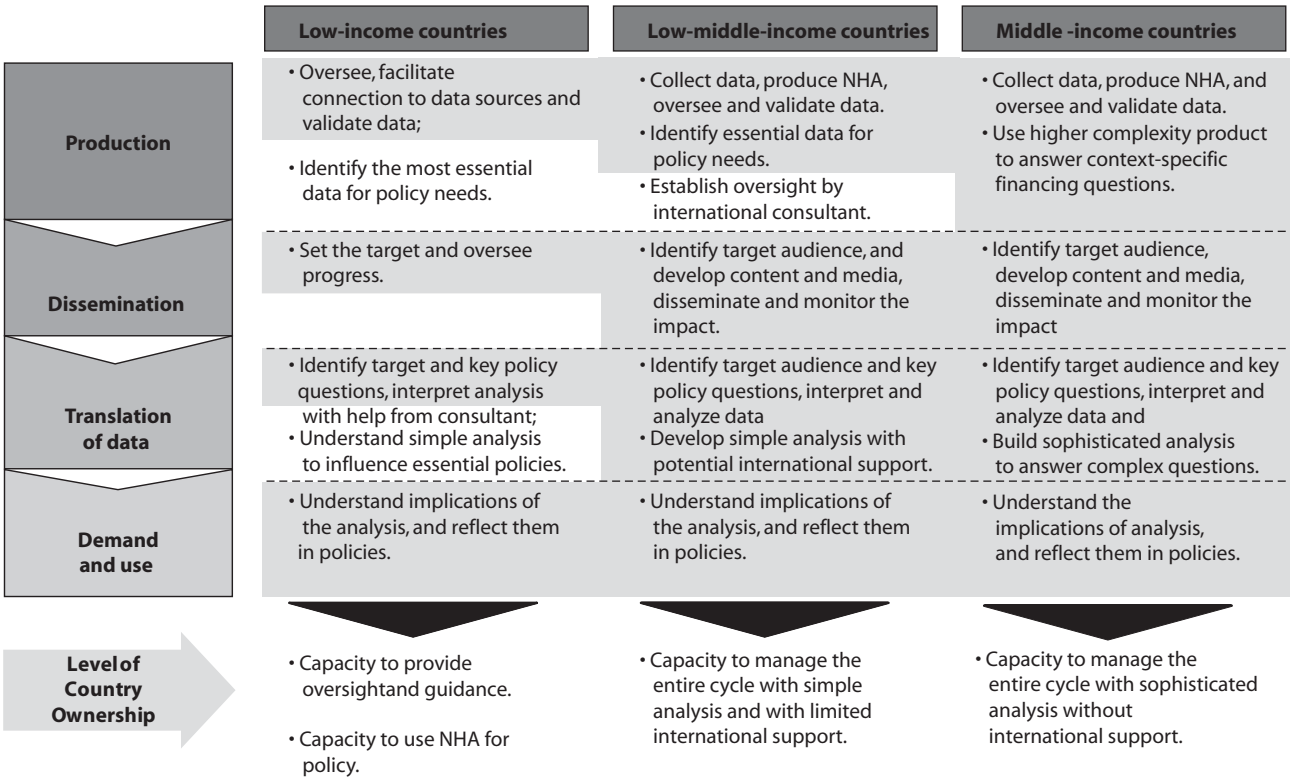
Strengthening Institutional Capacity for NHA Production

Skills, if retained by only a few individual producers of NHA, will deteriorate significantly with natural loss of individual staff members. For example, the number of staff members in the NHA unit of the MOH in Malaysia decreased from eight to four because of promotions and transfers; as a result, most staff members responsible for data management are now temporary workers. There is growing concern about maintaining knowledge and institutional capacity within the unit, and detailed documentation is thus kept wherever possible.

Different approaches, which countries can combine in their capacity-building strategies, can protect countries from losing production knowledge and skills by strengthening institutional capacity (figure 3.3).

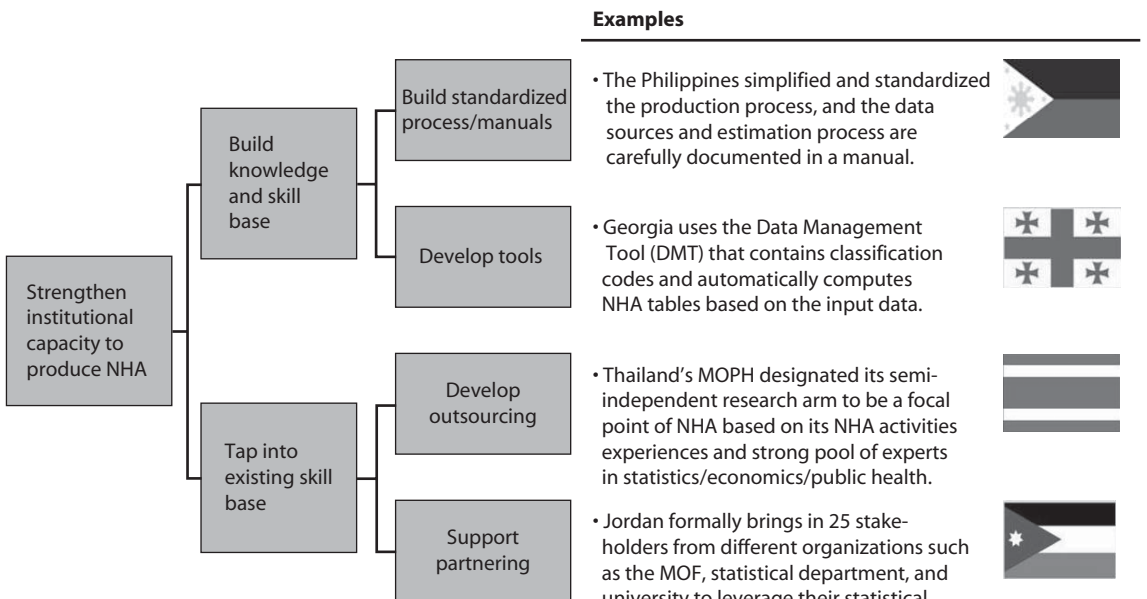
Standardizing the process. Countries can build their institutional knowledge and skill base by ensuring that the NHA process is standardized and well documented and by building tools to facilitate the process. This approach enables new staff members to learn quickly and reduces reliance on the knowledge of a few production staff members. In the Philippines, for example, a simple NHA design has been developed, based mostly on routine data collection, which facilitates the production of NHA. Data sources and procedures for estimation are documented in a manual and built into an estimation tool. This documentation allows the

Figure 3.2 Examples of Capacity-Building Frameworks for NHA by Countries' Income Status



Source: Authors, based on country interviews.
Note: NHA = National Health Accounts. Shading in column text denotes an area of potential use of domestic resources.

Figure 3.3 Approaches for Strengthening Institutional Capacity for NHA Production



Source: Authors, based on country interviews.
Note: MOF = Ministry of Finance; MOPH = Ministry of Public Health; NHA = National Health Accounts.

country to train new staff members even when production staff members leave (Racelis 2008). In Georgia, in contrast, a special data management tool software application was developed in 2005 to facilitate the production of NHA data. The tool includes modules that contain classification codes for various categories of health expenditures to encode the input data, embedded formulas for calculating output estimates, and functions to generate NHA tables. These modules are linked together so that the NHA tables can be computed automatically, according to the data entered. An output file is generated that is linked to other NHA files for data analysis. The data management tool enables the NHA team to easily produce NHA, balance respective tables, and find errors in the output tables without needing in-depth accounting knowledge (Goginashvili and Turdziladze 2009).

The NHA production tool being developed by the Health Systems 20/20 Project (Health Systems 20/20 2011) also aims to strengthen a country's institutional capacity to produce NHA data and translate the results into policy analyses. The tool provides step-by-step guidance through many of the more technical aspects of the NHA estimation process, as well as a series of automated production and analysis tools. For example, customized coding and a survey built into the tool enable consistent and automated data production over multiple years. Data can be automatically imported if they are entered electronically, and easy-to-follow steps and information are also provided to assign codes to data for their automated analyses. The tool was pilot tested in Tanzania during the local team's data analysis workshop, and the final version is expected to be available in the summer of 2012 (see chapter 4 and appendix B).

Strengthening skill bases. Countries can often tap into their existing skill base to strengthen the production by training or through outsourcing the production process to a person, team, or entity in which skills already exist. For example, the Ministry of Public Health (MOPH) in Thailand designated the International Health Policy Program (IHPP), an autonomous research arm of the Bureau of Health Policy and Strategy in the MOPH, to host the NHA program long term and to be a national focal point based on its expertise, continuity, and full commitment. The IHPP has a pool of approximately 80 statisticians, economists, and public health experts, and it would be able to assign new staff members who have expertise and provide coaching for them to catch up relatively quickly even when staff turnover occurs. Thailand's strategy to invest in the development of highly skilled technical experts with overseas experience

makes a unique contribution to building sustainable capacity to collect, produce, analyze, and disseminate data.

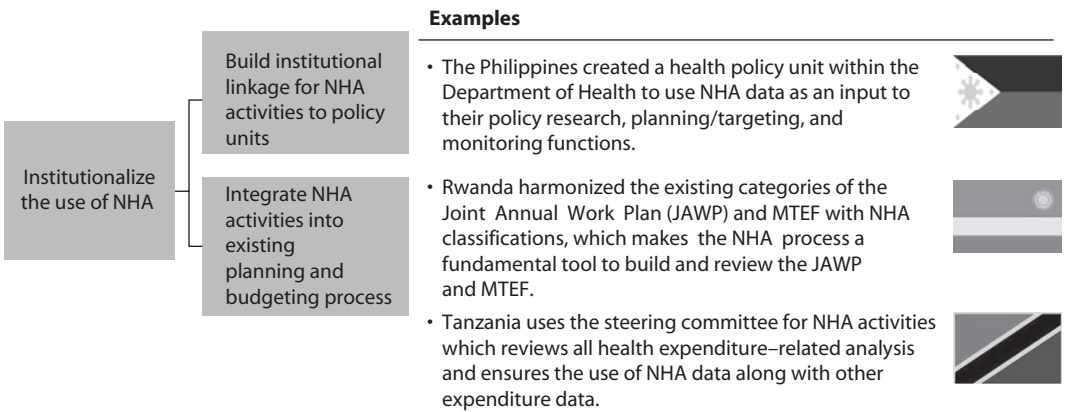
Although Thailand's ability to invest in people may be far from the reality of many other countries, the approach it has taken to locate NHA production where statistical expertise exists offers a valuable lesson. By contrast, Jordan sourced the necessary expertise internally—from statistics, finance, accounting, and public health areas—by partnering with the various in-country organizations, such as the statistical department, universities, and the MOF. The country built a formal multisectoral team of 25 staff members from different organizations within the health council to facilitate access and validate the NHA tables. The group, with its vast expertise, would be able to fill any resource gap relatively easily through coaching other staff members.

Building Institutional Mechanisms to Link NHA to the Planning Process

The capacity to understand and reflect on the implications of NHA analyses in policies is an essential capacity for which countries have expressed a clear desire, regardless of their socioeconomic status. The link between production, translation, and use of NHA has, however, often been weak because of the lack of coordination and a limited awareness of the value that NHA can add to broader health financing issues. Building an institutional mechanism whereby decision makers gain access to the insights that NHA can provide—sometimes in triangulation with other data instruments and tools—would help bridge the gap between production and use. Countries can build institutional links between NHA and policy units by designating NHA ownership in the MOH or in other organizations with strong connections to policy units. Countries can also integrate NHA into the regular planning and budgeting process, such as public expenditure reviews (PERs)[1] and the Medium-Term Expenditure Framework (MTEF)[2] (figure 3.4). Countries can combine these approaches in their institutional capacity-building strategies to strengthen the translation and use of NHA.

To ensure perpetuation of information and evidence-based decision making for their Department of Health (DOH), the Philippines created the health policy unit of the Health Policy Development and Planning Bureau within the department. The unit is mandated to use NHA for input to policy research, planning and targeting, and monitoring. Formally locating NHA use within the policy unit of the DOH will facilitate regular application of NHA analysis to policy.

Figure 3.4 Approaches to Build Institutional Capacity for Effective Translation and Use of NHA Data



Source: Authors, based on country interviews.
Note: MTEF = Medium-Term Expenditure Frameworks; NAH = National Health Accounts.

Rwanda has also been making efforts to generate an institutional link between the NHA process and policy making. To integrate their NHA process into existing formal planning and budgeting processes such as PERs and the MTEF, the country harmonized the existing categories of the joint annual work plan and MTEF with NHA classifications. This can make the NHA process an essential tool for annual and multiyear planning reviews (Rajkotia et al. forthcoming).

Tanzania, meanwhile, integrated their NHA with other data and analyses on health expenditures.[3] The country mandated the quality assurance of the NHA to the steering committee that oversees all information and analysis related to health spending. This mandate will ensure the use of NHA data as one of the key sources of information in the policy review on health spending.

Creation of an Enabling Environment for Effective Resource Tracking

As shown in figure 3.1, the effective and efficient production, dissemination, translation, and use of NHA hinge greatly on the policy, data, and HR environments of a country. Although many factors are beyond the scope of NHA work, the capacity-building strategy for NHA efforts and collaboration between countries and development partners should be grounded in the differences in these environmental factors and their implications for the capacity of countries.

Countries can benefit from addressing their NHA environmental factors. For example, Georgia has used legal measures and is improving the data environment to make the NHA process robust and efficient. The government issued a decree in 2006 that defines the information flow needed for producing NHA, the organizations that are responsible for providing data, and the terms and conditions for submitting the data. This decree provides for the successful institutionalization of multistakeholder data collection processes, and all the necessary data are covered by information from other agencies. With support from the U.S. Agency for International Development (USAID), Georgia is also strengthening its health management information system to improve data reliability. As the data environment of the country improves, it is expected that the frequency of the Health Utilization and Expenditure Survey for NHA can be reduced from every three years to every five years, leading to a significant reduction of annual survey costs. Legal measures to formalize access to data from key

stakeholders in the health system have also been deployed in Jordan. The country issued a royal decree that mandates the routine production of the data, delineation of workloads and roles of relevant NHA stakeholders, and use of data to inform budgeting and planning for policy purposes.

Building the HR environment for NHA could improve the quality of production, translation, and use of NHA in the long term. For example, Ghana is considering designing an NHA module in the master's program of the School of Public Health at the University of Ghana. This plan is expected to broaden the HR skills base for the NHA process and strengthen the university's research functions using NHA output. Furthermore, the capacity to produce and translate NHA analysis into effective policy briefs should be discussed in a wider context of establishing countries' capacity to conduct health policy and systems research. The biennial review by the Alliance for Health Policy and Systems Research of the World Health Organization emphasized that generating appropriate, trustworthy evidence depends on the existence of good research organizations (Alliance for Health Policy and Systems Research 2007). The review also concluded that capacity-building strategies need to focus on the comprehensive requirements of institutions, including overall skills and career development; development of leadership, governance, and administrative systems; and strengthening of networks among the research community. Addressing comprehensive research capacities in the long term, as done in Thailand, needs to be considered as an important component of a broader initiative for resource tracking and evidence-based policy making (Alliance for Health Policy and Systems Research 2007).

Building a supportive enabling environment for NHA depends on a country's appetite for transparency and the role of civil society organizations and related entities in decision making. Countries may be more inclined to have a positive view of institutionalization of NHA (and resource tracking broadly) if they promote transparency and increasingly hold their leaders accountable, such as countries with a vibrant civil society and a citizenry that is well informed and that demands information. In this way, demand for NHA can build over time to respond to public requests and expectations on transparency and accountability.

Among countries that actively engage in NHA processes, a consensus is growing regarding the need for institutional approaches to improve

uptake of NHA, by making advocacy less about the tool itself and more about the answers that NHA can help provide. Politically savvy personnel with strong communication skills could play an important role as NHA champions. These champions would be instrumental is elevating NHA beyond the production of data, to promote institutional approaches in a multistakeholder environment around policy issues.

Learning-by-Doing Approaches for Effective Long-Term Capacity Building

Country experiences indicate that capacity building for NHA is a highly iterative process that evolves at each step of the cycle: an NHA team discovers the data, learns the classification and calculations, gradually partners with multiple organizations to streamline the data collection process, aligns existing surveys to the NHA format, adjusts methodologies to estimate consumption by examining data discrepancies, and includes high-level policy makers in a policy advisory group. The three layers of capacity—individual, institutional, and environmental—are addressed at the same time during the iterative process. The case of Thailand in box 3.1 exemplifies this iterative process of learning by doing as driven by local staff members. A similar iterative process was observed in other countries, such as Georgia, Jordan, Kenya, and Serbia.

Some country cases suggest the potential role that external support can play to promote learning by doing. For example, in Serbia, two international consultants were an excellent source of support in guiding production by a team of two part-time economists and a head of the NHA unit at the initial round of the NHA cycle. One consultant made a work plan for data collection together with the NHA team and steering committee. He also provided considerable on-the-job training, showing his work and explaining how NHA data could be collected and used for NHA production. Instead of collecting and validating the data himself, he then let the team collect and validate the data, while he served as a source of knowledge. The other consultant made a work plan to revise the data acquired from the pilot activities and prepared a plan to fully implement NHA production. This shows how external consultants can be valuable, both as a source of knowledge and as a facilitator (rather than implementer) of the NHA process.

A learning-by-doing approach appears to be initiated and promoted either through the efforts of individual champions from within the country

Box 3.1

The Learning-by-Doing Approach in Thailand

Thai NHA were initiated by the MOPH, Health Planning Division, in 1994 and fully institutionalized by 2000. The program was started by 12 researchers at the National Statistical Office (NSO), National Economic and Social Development Board (NESDB), MOPH, MOF, and academic institutes, which without any external expert advice used World Health Organization publications in an open-book, do-it-yourself approach (Tangcharoensathien et al. 2008).

There was a discrepancy of 1.5 percent of GDP between the consumption data and the United Nations estimate in the first NHA round, which led to further investigations of data and estimation methodologies that helped the researchers build deeper knowledge of these techniques. This process also strengthened the partnership with the NSO, which led to the amendment of the questionnaire for the socioeconomic survey to include a detailed breakdown of expenditures for ambulatory services and inpatient care in the NHA system.

During round 2, with a strategic objective to closely engage the NESDB because it produced the health expenditure data for NHA, the team involved the secretary general of the NESDB as chair of the steering committee. Also, in pursuit of the national focal point for NHA during round 3, the deputy permanent secretary of the MOPH decided to designate the International Health Policy Program as host of the NHA on the grounds of its expertise, continuity, and full commitment.

This case shows the step-by-step iterative evolution of the NHA process in terms of staff knowledge, data collection processes, and the involvement of key stakeholders. The country also carefully determined its institutional home based on expertise and past performance, which ensured good institutional capacity to sustain the process.

The entire evolution of the NHA process has been driven by researchers from multiple organizations, motivated by the need for reliable expenditure estimates for health care functions, providers, and sources of financing. This case demonstrates how motivated champions can drive the evolution of NHA from within.

Sources: Tangcharoensathien et al. 2008.

(for example, Thailand) or through effective external facilitation, or it is a combination of both (for example, Serbia). Thus, proponents of the NHA process would find it valuable to identify a potential champion of NHA as well as to plan and review external support from the point of view of capacity building.

In conclusion, capacity building for NHA is a long-term, iterative process for individuals, institutions, and the country environment across the full cycle of NHA activities. Countries' targets of capacity building and approaches to bridging capacity gaps are likely to differ, depending on the socioeconomic status of the country. Developing a long-term strategy grounded on the specific country situation is critical to sustaining NHA activities through the built capacity of skilled and empowered staff members. Finally, the role played by technical assistants should be carefully defined in the strategy to enhance rather than obstruct the learning-by-doing process.

Notes

1. Public expenditure reviews are the World Bank's core diagnostic tool to help countries establish effective and transparent mechanisms to allocate and use available public resources.
2. The MTEF is a tool to encourage cooperation across ministries and planning over a longer horizon than the immediately upcoming fiscal year.
3. Mariam Ally (head, Health Care Financing Unit, Ministry of Health and Social Welfare, Tanzania), personal interview, July 7, 2011.

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CHAPTER 4

Financing Strategy for National Health Accounts

This chapter shows how a financing strategy can be crafted to ensure the long-term sustainability of National Health Accounts (NHA), taking into account a country's socioeconomic status and development path. It then discusses the importance of rooting the NHA process in a country's planning and budgeting process, both to allocate sufficient resources for NHA activities and to help ensure they are used effectively. The chapter also highlights ways to achieve cost savings—including integrating the NHA data collection process with routine data management systems, simplifying and standardizing NHA processes and tools, and localizing production. Finally, the chapter sets out the possible variations in a country's NHA financing strategy, as determined by its economic status.

This chapter covers the following key points:

- Experience shows that, without a long-term financing strategy, countries face challenges in sustaining NHA.
- NHA in low- and middle-income countries have often been a donor-driven, highly technical, and expensive exercise. To turn the NHA process into a user-friendly, practical, and sustainable tool, the government must make it cost-efficient and integrate it into existing data collection and national budgeting processes.

- The cost of NHA activities tends to decrease with each subsequent NHA round. It is thus crucial to have a financing strategy in place that extends beyond the initial rounds of NHA production and aligns the shift in cost sharing between countries and development partners over the long term.
- Rooting NHA activities in countries' planning and budgeting processes can ensure sustained financing of NHA activities.
- On average, more than 70 percent of the total average NHA cost is made up of survey, consultant and staff costs, and these costs form a larger proportion of overall costs in early rounds. The following approaches create opportunities to capture cost-efficiencies early:
  - Approaches to reduce consulting costs include reducing the unit cost of consultants by leveraging local and regional expertise, reducing workloads by minimizing and standardizing the process, and building the capacity of local staff.
  - By investing up front in integrating the NHA data collection process into the existing data collection system, countries can benefit from cost savings every year after the initial NHA rounds. This savings is particularly true of surveys to estimate private (household) spending on health.

A Sustainable Financing Strategy in Tune with a Country's Socioeconomic Status

Among the main challenges in sustaining NHA activities are both short- and long-term financing of household surveys, staff, and the costs of maintaining an office. Experience shows that without a long-term financing strategy, countries face challenges in sustaining the NHA cycle. In several countries, donors have funded technical assistance for a few rounds of NHA production without a clear collective financing strategy to sustain activities, and the cycle did not continue after the one to two fully financed rounds. In contrast, countries such as Jordan, the Philippines, and Thailand have moved toward self-funding by standardizing the NHA process, building capacity, and integrating the NHA cycle into existing data collection and budgeting processes through years of learning by doing.

In low- and middle-income countries, NHA production has have often been donor-driven, highly technical, and expensive. For application as a user-friendly, practical, and sustainable tool that feeds into countries' needs, the NHA process needs to be cost-efficient and integrated into

existing data collection and national budgeting processes. Although it is important for a country to cofinance the activity for ownership of the output, the level of cofinancing needs to be based on the country's specific resource situation.

Benefits of a Long-Term Financing Strategy

A long-term financing strategy can facilitate the transition to lower costs and ensure effective use of and unlock the funds for activities.

Facilitating the Transition to Lower Costs

The total cost of financing NHA activities decreases as countries experience more rounds and build capacity. The World Bank conducted a survey on the costs of the NHA process in 2010 (World Bank 2010). Of 59 countries responding to the survey, 32 countries provided their cost breakdown. Of those, 7 are Organisation for Economic Co-operation and Development (OECD) countries, 17 are middle-income countries (including upper- and lower-middle-income countries), and 8 are low-income countries. These respondents reported their total costs of production and dissemination for their latest NHA rounds. Their figures often exclude the costs of international consultants, because recipient countries often have limited transparency on the total cost of the technical assistance that they may be receiving. According to the responses reported by the 25 low- and middle-income countries, the average total cost for NHA data production and dissemination for countries with more than five NHA rounds is 53 percent lower than the cost for the countries that have experienced one to two rounds. These data indicate that costs can be reduced with more NHA experience, notwithstanding the limited size of the sample and the fact that countries do not fully capture international consulting costs. Cost-saving opportunities may be even more dramatic if the high spending on international consultants is reduced in the initial rounds of the NHA cycle.

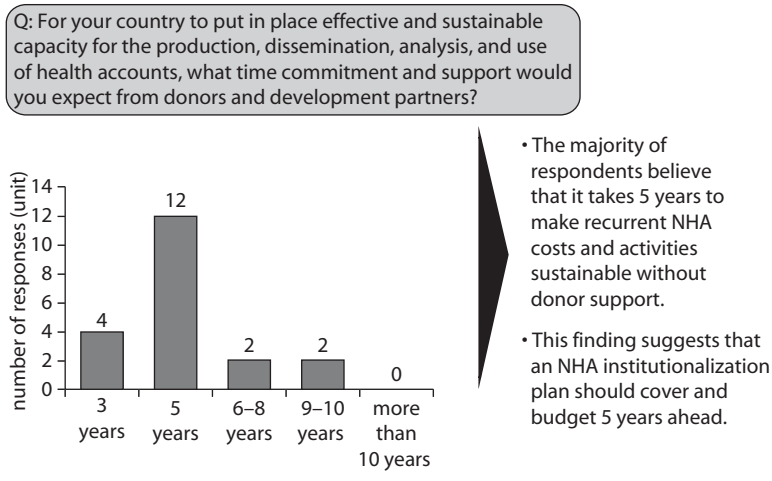
According to the same survey results, the average costs of operation (for example, staff, office, travel, and data dissemination) and investment (for example, consultants, training, and information technology) for countries with more than five rounds of NHA experience tend to decrease to about one-third of the costs for those with only one to two rounds of experience, because countries build skills and standardize the process and tools. Savings on household and other survey costs appear to be achieved more slowly; however, the average total survey cost for countries with

more than five NHA rounds is only 23 percent smaller than the average survey cost for countries with one to two rounds of experience. In contrast, none of the seven OECD countries that responded to the World Bank's survey reported any survey cost, because all NHA data come from routinely collected financial data and no marginal cost is required. Non-OECD countries that use existing routine data collection systems to produce NHA, such as China, Thailand, and Vietnam, also reported very low survey costs.

Overall, the cost of the NHA process tends to decrease significantly with experience. It would be crucial for countries and development partners to have a financing strategy that extends beyond the initial rounds and aligns cost sharing between development partners and countries long term to support this cost transition process effectively.

The World Bank conducted another survey in April 2011, which looked at the optimal duration of donor support for successful institutionalization of NHA. A majority of the 21 countries that responded to this survey thought that a five-year timeline for donor support would be required for this purpose (figure 4.1) (World Bank 2011). The importance of having a long-term financing strategy is reinforced by several country examples. In Madagascar and Mongolia, for instance, donor financing supported the production of the first NHA round but had no

Figure 4.1 Optimum Duration of Support from Development Partners



Source: Authors.
Note: n = 21. NHA = National Health Accounts.

financing strategy in place for the future; as a result, both countries struggled to maintain the NHA cycle.

The pace of the cost transition and the need for financing support will vary depending on the country's socioeconomic status and access to resources. Low-income countries tend to need external consulting support across the NHA cycle, owing to the shortage of human resources, and might need to conduct expensive household surveys to complete the NHA tables given the lack of reliable data systems. The variations in financing strategies between countries of different resource levels will be discussed further in the following sections.

Ensuring Effective Use of and Unlocking National Funds for NHA Activities

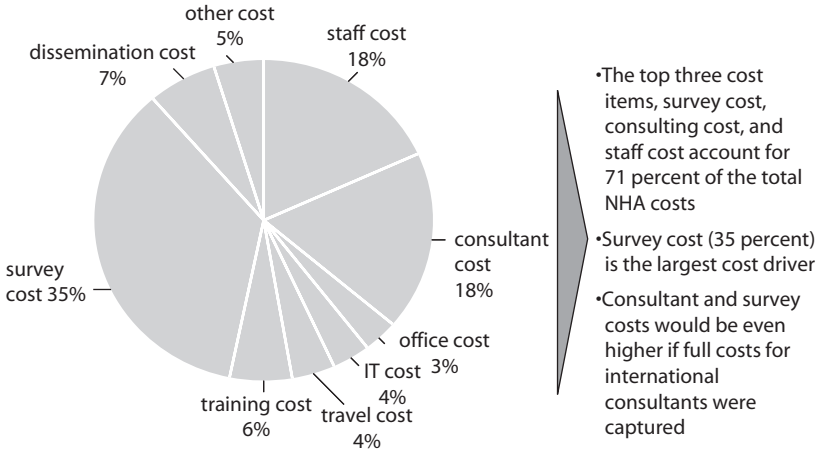
An effective approach to secure funding is to integrate the NHA process as a part of a country's regular budgeting process. For example, Rwanda is moving toward the integration of NHA activities into the formal national resource planning exercise in which the government and partners in sectorwide approaches jointly plan sector expenditures (Rajkotia et al. forthcoming). Thailand uses NHA data in conjunction with hospital administrative data to estimate health expenditures for curative and preventive care. It also used NHA data to inform the Medium-Term Expenditure Framework (MTEF) for the health sector in the 10th National Economic and Social Development Plan.[1] In the Philippines, the Health Policy Development and Planning Bureau, within the Department of Health, also uses NHA data along with a wide range of other health-related data as input to their policy research, planning, and monitoring functions, and a law requires the production of NHA data every year (Racelis 2008). These approaches ensure the routine use of NHA data as a formal tool for analysis and unlock national funds for the NHA exercise.

Methods for Capturing Cost-Efficiencies for NHA

Capturing Cost-Efficiencies in the Early Rounds of the NHA Cycle

Capturing cost-efficiencies is critical to increase financial sustainability of NHA. Figure 4.2, based on the 2010 World Bank survey on costs of health accounting, shows that, on average, more than 70 percent of the total average NHA cost is made up of survey, consultant and staff member costs (World Bank 2010). This percentage will be even higher if the costs of international consultants that are not fully captured in the survey are included. Because it is vital for a country to build and sustain

Figure 4.2 Average Cost Composition for NHA Activities



Source: Authors, survey on costs of health accounting conducted by the project team in 2010.
Note: Costing is based on reports from responding countries, which often have little overview of the full costs of international technical assistance. NHA = National Health Accounts.

human capacity, cost-saving opportunities should be sought primarily on survey and consulting costs and not on staff costs. The survey data suggest that the survey and consulting costs form a larger proportion of costs in the early rounds of the NHA cycle, and that there is also a significantly larger variation in cost in the early NHA rounds among countries with the same experiences. If one assumes that the NHA produced in these countries are of adequate quality, then the opportunities to capture cost-efficiencies in survey and consulting costs likely reside in the early NHA rounds and benchmarking best cost-efficient practices can reduce the NHA costs up front.

Integrating the NHA Data Collection Process into Routine Data Management Systems

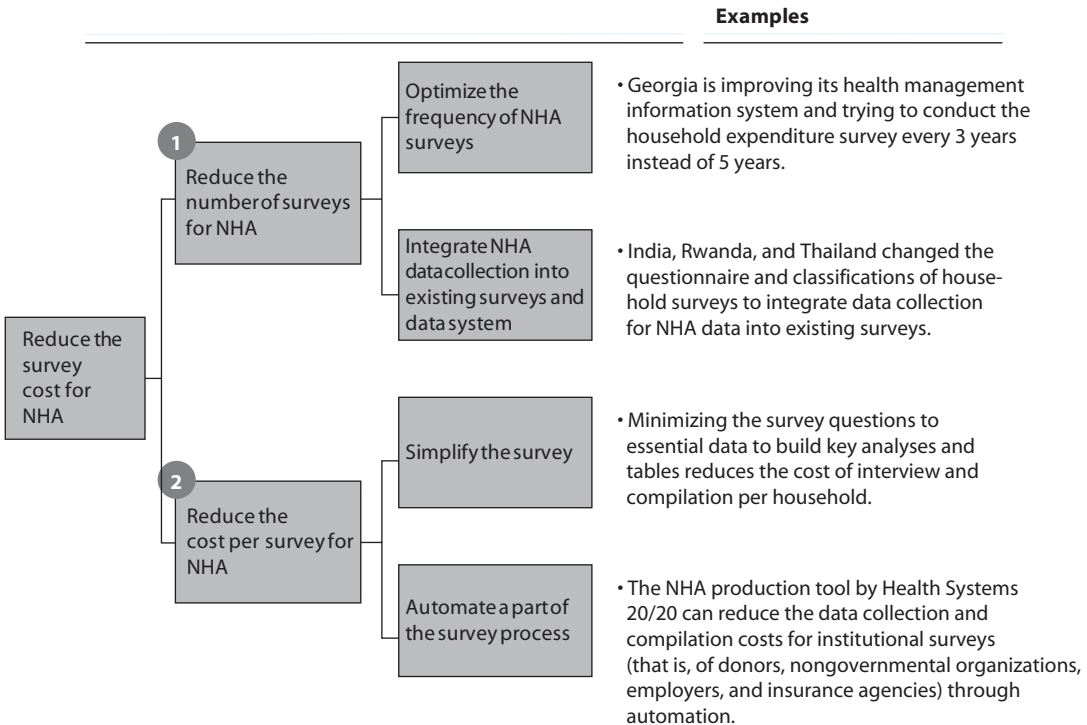
Many countries need a household survey to complete NHA activities because they lack access to household health expenditure data or the data are of poor quality. This requirement makes the survey cost the largest cost item across different rounds of NHA. For example, Georgia conducts the Health Utilization and Expenditure Survey to supplement the existing household survey by the State Department of Statistics. This survey's costs account for 77 percent of the total NHA cost of the country.[2]

As summarized in figure 4.3, country experiences indicate that survey costs for NHA activities can be saved through (a) reducing the number of surveys by integrating the data collection process into existing data management systems, and (b) reducing the cost of a survey by simplifying it and standardizing its process and tools.

Integrating the NHA data collection process into the existing data management system. Countries can reduce or avoid the survey cost for NHA activities by integrating data collection into existing survey or data systems, where these exist, and use alternative estimation methodologies that leverage existing data. Estimation of household out-of-pocket (OOP) expenditures is frequently the most complex activity in estimating health expenditures. Furthermore, it often poses a large cost burden on overall NHA activities. The problems of reporting bias in large-scale surveys such as household surveys and for-profit private providers' surveys are well documented and studied. To avoid such problems, countries can use alternative methods for estimating household OOP expenditures that integrate and triangulate multiple data sources. Countries such as Australia, Bangladesh, Malaysia, Sri Lanka, and the United States have been able to generate reliable estimates of the level, trend, and composition of household OOP expenditures without using household survey data (box 4.1). Also, as discussed in chapter 3, the government of Georgia issued a decree that defines the information flow and organizations responsible for producing NHA data, thus institutionalizing the multistakeholder data collection process. With support from the U.S. Agency for International Development (USAID), the country is strengthening the health management information system (HMIS) to improve data reliability, which is expected to reduce the frequency of health expenditure surveys, thereby reducing the survey cost by 40 percent.[3]

Furthermore, several countries have revised their questionnaire and classification of existing household surveys, adding a module to the survey to satisfy the data needs of NHA activities, thereby saving the entire survey cost for NHA (figure 4.3). Research done for Health Systems 20/20 estimated that a freestanding household health expenditure survey for an NHA estimation can cost up to US$1,000,000. It is also estimated that the cost for a freestanding, disease-specific survey to review expenditures in health areas like human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) and malaria for NHA subaccounts can

Figure 4.3 Cost-Saving Approaches in NHA Survey Cost



Source: Authors, based on country interviews.
Note: HMIS = health management information system; NGO = nongovernmental organization; NHA = National Health Accounts.

Box 4.1

Estimating Out-of-Pocket Payments without Household Surveys

Current best practice methods for estimating household out-of-pocket spending involve integrating and triangulating multiple data sources to estimate household spending, many of which are related to the data producer or provider (examples of the latter include industry data on pharmacy sales, surveys, and administrative reports from private hospitals). In countries such as Australia, Bangladesh, Malaysia, Sri Lanka, and the United States, these methods are sufficient to generate reliable estimates of the level, trend, and composition (by function) of household out-of-pocket (OOP) spending. However, in areas where expenditures occur at noninstitutional or informal providers, household survey data may represent the last resort (Rannan-Eliya and Lorenzoni 2010).

Countries that have used this estimation approach and leveraged existing and routine data sources have seen significant savings on the overall costs of NHA activities (ADB 2009). For example, in recent updates of NHA in several of the Pacific Island countries that share the challenge of limited data sources, new household surveys were not commissioned for NHA estimations. Instead, existing household budget and new provider surveys were employed. In the wider Asia-Pacific region, none of the developed or developing countries with annually updated NHA estimates depend on household surveys commissioned for NHA purposes, although all have used existing national household survey data to some extent.

However, the continuing reliance on household surveys to estimate household spending may reflect the difficulty that many NHA agencies have in recruiting and retaining personnel with research skills. The triangulation and adjustment of survey data with other data sources are less costly than conducting a new household survey, but they require the capacity to assess and manipulate statistics. Countries can benefit from capacity-building support of the alternative methods through experts and regional networks.

Source: Authors, based on country interviews.

reach US$200,000–US$500,000. In contrast, adding a few questions to an existing survey to collect the same information for an NHA estimation adds less than a minute to the interviewing time for many household members—and adds only a few thousand dollars in costs (Carlson and Glandon 2009). These data show that the integration of NHA data

collection into existing surveys can significantly improve the financial sustainability of NHA.

However, adding expenditure-related questions to existing surveys, such as the Demographic and Health Survey (DHS), needs to be designed and tested carefully. First, even if the additional questions for NHA surveys will not be a significant burden for many respondents, it is necessary to carefully avoid interviewee and interviewer fatigue caused by adding further complexity to existing large-volume surveys and to maintain the quality of overall survey responses. Further, integrating an NHA module into existing surveys can require more training and monitoring. Examining these potential negative impacts of the integration is crucial to minimizing them, for example, by limiting the additional module for NHA to essential questions that directly help policy decisions and by optimizing the NHA module's sample size to the minimum level required to inform national-level NHA estimates.[4]

In Thailand, the NHA team built a strong partnership with the National Statistical Office, and that office amended its Socio-Economic Survey (SES) questionnaire to break down the household expenditure into ambulatory services, which are provided by public and private providers, and inpatient services in public and private hospitals. As a result of these modifications, household expenditures in the NHA data are based solely on the routine SES. By integrating NHA data sources into existing data sources, the NHA team has been able to reduce the entire survey cost for the last NHA round to just US$1,538 per round (Tangcharoensathien et al. 2008).[5]

Rwanda is also exploring ways to streamline data collection processes to achieve cost-efficiencies. For example, the country has integrated NHA and National AIDS Spending Assessment (NASA) analyses by identifying the primary sources of data needed going forward. In this way, analyses can be done annually rather than every five years. To streamline the collection of household data and minimize costs, household surveys, which used to be the largest cost drivers of NHA activities for Rwanda, have been integrated as part of major surveys, including the DHS and the Household Living Conditions Survey, by aligning the questionnaires with NHA surveys. Also, intermediate surveys on nonhousehold expenditures will be conducted routinely every two to three years. As a result, more than 80 percent of data for NHA can be sourced from routine data collection processes. This will significantly reduce Rwanda's NHA survey costs, which typically range from US$200,000 to US$500,000 (Rajkotia et al., forthcoming).

Carlson and Glandon (2009), in Health Systems 20/20, proposed sets of questions that countries can add to their regular nationally representative household surveys such as the DHS, the Living Standards Measurement Study, and the World Health Survey. These questions are selected on the basis of four criteria: they (a) are tested, (b) are pertinent to health policy, (c) will inform NHA, and (d) minimize the additional financial and labor costs associated with data collection (Carlson and Glandon 2009). The proposed questions that can be added to regular household surveys are presented in appendix B. An evaluation of the feasibility and effect of integrating these questions into the DHS has been tested through a stand-alone pilot DHS in the Arab Republic of Egypt and is being analyzed as a result of integration into Rwanda's 2010 DHS.[6]

Modifying the government accounting system can also reduce the need for additional surveys. In India during 2004/05, based on insights from the ongoing NHA process, the government introduced a line-item classification for medical treatment in its accounting system to capture the expenditures incurred by the government on the health of its employees. Before this was introduced, the expenditure on employees' health had been captured under salaries, and it required an additional survey of the payment and accounting offices to estimate government spending on its employees' health. That survey cost was thus saved by the introduction of a subcategory in the expenditure classification.[7]

Simplifying surveys and standardizing processes and tools. Countries can reduce the cost of a survey by simplifying the survey and standardizing and automating the survey process. One approach is to limit the survey questions to obtain only essential information for policy makers. Complicated questionnaires will incur additional costs in the interviewing of households and compilation of results, as well as for the modification because of an increase in errors. Especially in low-income countries with resource constraints where additional surveys would be needed, simplifying the survey to create essential NHA tables based on policy needs could maximize the cost-effectiveness.

Another approach is to use standardized and automated tools that facilitate data collection and compilation and reduce the additional work to deal with errors. In Tanzania, the National Health Accounts Production Tool, developed by USAID-funded Health Systems 20/20, is being tested (see appendix B). The production tool uses electronic questionnaires that are automatically generated for data providers. It also electronically

imports responses directly to the database. Built-in validation and easy-to-follow steps to assign codes to data, with automated double-counting check functions, are expected to facilitate the compiling and validating of data and make it possible for a trained local team leader to administer the process. The production tool also automatically produces the NHA tables and visualizes the flow of funds, which can save time for costly international consultants to double-check data. The production tool is estimated to save survey and consulting costs at the initial stages of NHA by about US$58,000–US$79,000 (rough estimate to be tested) (figure 4.4).[8]

It should be noted that the long-term reduction of survey costs through integration into regular data collection processes may require considerable up-front consulting and staff costs that entail identifying existing data sources, validating data reliability, proposing changes in the regular data collection process, and negotiating with stakeholders. Once the integration is complete, however, significant cost savings can be made, because repeated household surveys in each subsequent round of NHA are expensive. Also of note is that although up-front investments may be high, experience shows that similar capital investments have been made just in NHA production without considering long-term efficiencies. The sooner countries can integrate their data, the more years of cost savings will follow.

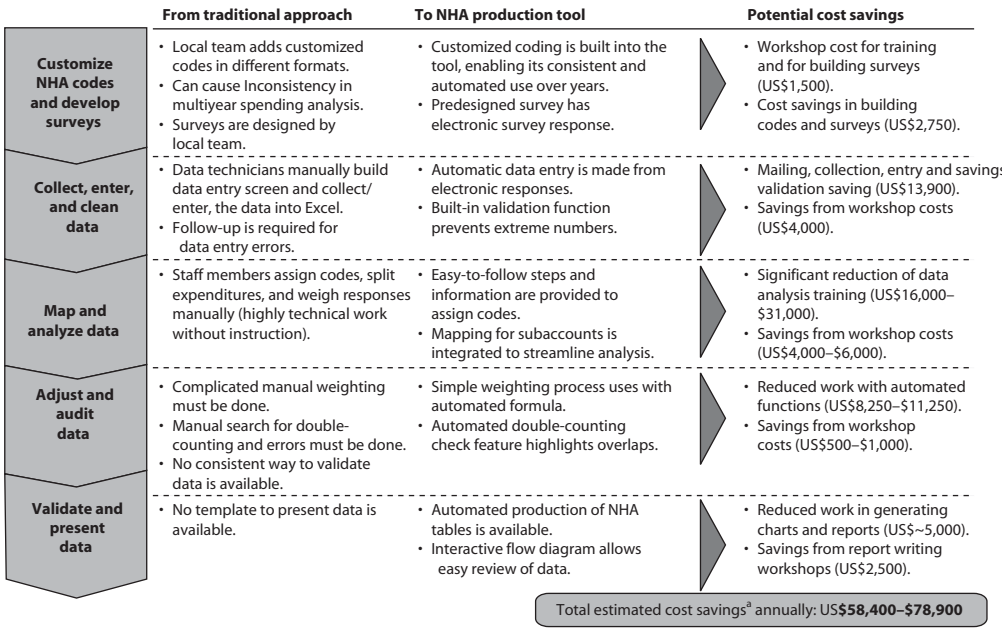
Localizing and Standardizing Production and Analysis to Save International Consultant Costs

There are two kinds of consulting costs; the *direct* cost of consultants as a large cost item and, if the NHA process is inappropriately designed to support long-term sustainability, the *indirect* cost of insufficient transfer of knowledge and skills to manage the NHA cycle, which is discussed in chapter 3 of this book.

Experiences suggest that countries and their development partners can consider combining three approaches to reduce the direct consulting cost (figure 4.5): (a) reduce the unit cost of consultants by leveraging local and regional expertise, (b) reduce workloads by minimizing and standardizing the process, and (c) use and build the capacity of local staff.

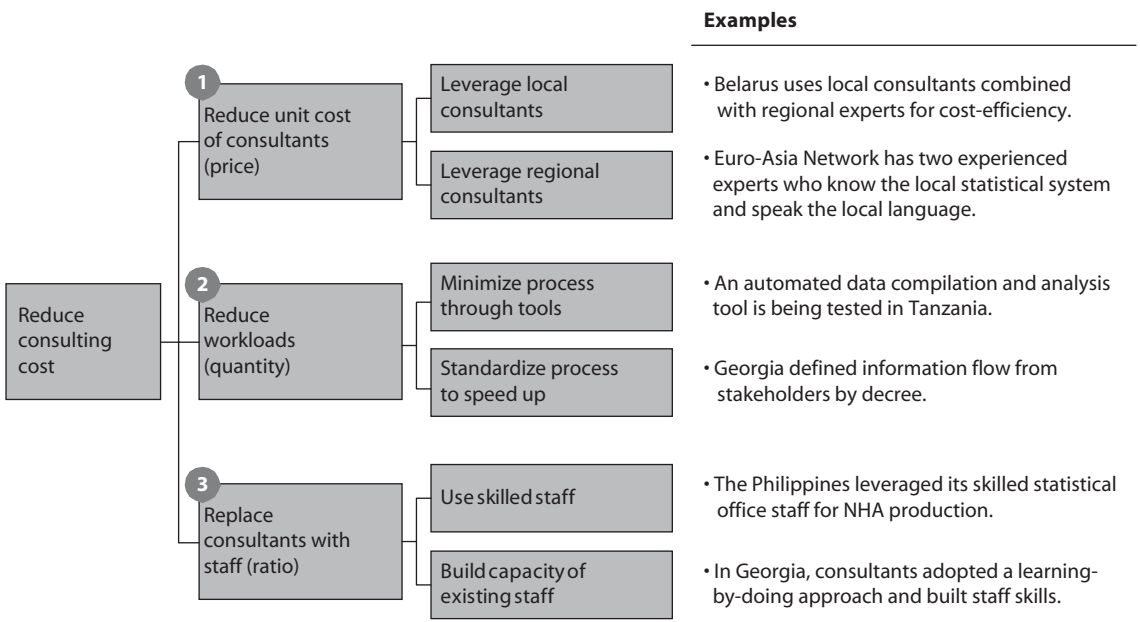
Leveraging regional and local expertise. Countries can capture cost-efficiency by leveraging regional and local experts where possible while avoiding the use of international consultants. The current unit cost for a regional consultant in the Euro-Asia Network is about US$300 per day. In the former Soviet Union countries, for example, trained regional

Figure 4.4 Estimate of Cost Saving through the NHA Production Tool by Health Systems 20/20



Sources: Author interviews with Lara Lorenzetti, Nirmala Ravishankar, Catherine Connor, and Douglas Glandon (analysts, Abt Associates, Bethesda, MD), 2011.
Note: The tool is not yet tested in actual settings, and cost savings are a rough estimate. NHA = National Health Accounts.

Figure 4.5 Approaches to Save Direct Consulting Costs for the NHA Process



Source: Authors, based on country interviews.
Note: NHA = National Health Accounts.

consultants can often also help the country more efficiently; they are familiar with statistics and data systems specific to those countries and can quickly identify where to collect specific data to fill the gaps. They also speak the local language, which enables them to work effectively with NHA staff members, other local stakeholders, and local consultants. For example, in Uzbekistan, a regional consultant worked closely with the leader of a local working group, effectively helping her to identify options for efficient data collection, and they were able to communicate in the local language.[9]

Standardizing and minimizing processes. Standardizing the process of data collection and analysis reduces the transaction cost, thus decreasing the workload of consultants. The example of the Philippines in chapter 3—the country standardized and documented its estimation procedure and data sources in a manual and in an estimation tool—not only reduced the consulting workload but also allowed new staff members to learn the process without the help of external consultants (Racelis 2008). Also, the NHA production tool developed by Health Systems 20/20 is a good example of reducing the consulting workload by simplifying and minimizing the process through an information technology tool.

Building staff capacity. Building local staff capacity can also reduce the consultant cost by increasing the local staff members' ability to do more without support. As discussed in chapter 3, several countries have leveraged existing statistical capacity within various government entities and built their capacity to produce and analyze NHA data through a learning-by-doing approach.

In the Philippines, the use of staff at the National Statistical Coordination Board (NSCB) with statistical expertise and trained health economists saved consulting hours. NSCB staff members readily understand the NHA approaches, especially when viewed as a component of existing National Income Accounts. They are also already familiar with many of the data sources for the NHA, which facilitates data collection and compilation. As a result, the Philippines did not need to rely heavily on international consultants across the NHA cycle (Racelis 2008).

In Georgia, while building the standardized process, tools, and manuals for data collection and analysis, consultants effectively helped an NHA staff member and a local consultant produce the first NHA themselves through learning by doing. This arrangement limited the role of international consultants to light, remote support rather than on-site production

and analysis of the NHA, thereby also saving consulting and travel costs from the second round. As a consequence, Georgia maintains a relatively low consulting budget of about US$12,000 to hire a local consultant (World Bank 2010).[10]

As illustrated in figure 4.6, by investing up front in developing the data collection process in such a way that it is integrated into the existing data management system and by building the capacity to produce NHA with minimum support from external consultants, countries can benefit from cost savings every year after the initial rounds. The strategy to capture cost-efficiency should be based on the specific resource context of respective countries, which will be discussed in the next section.

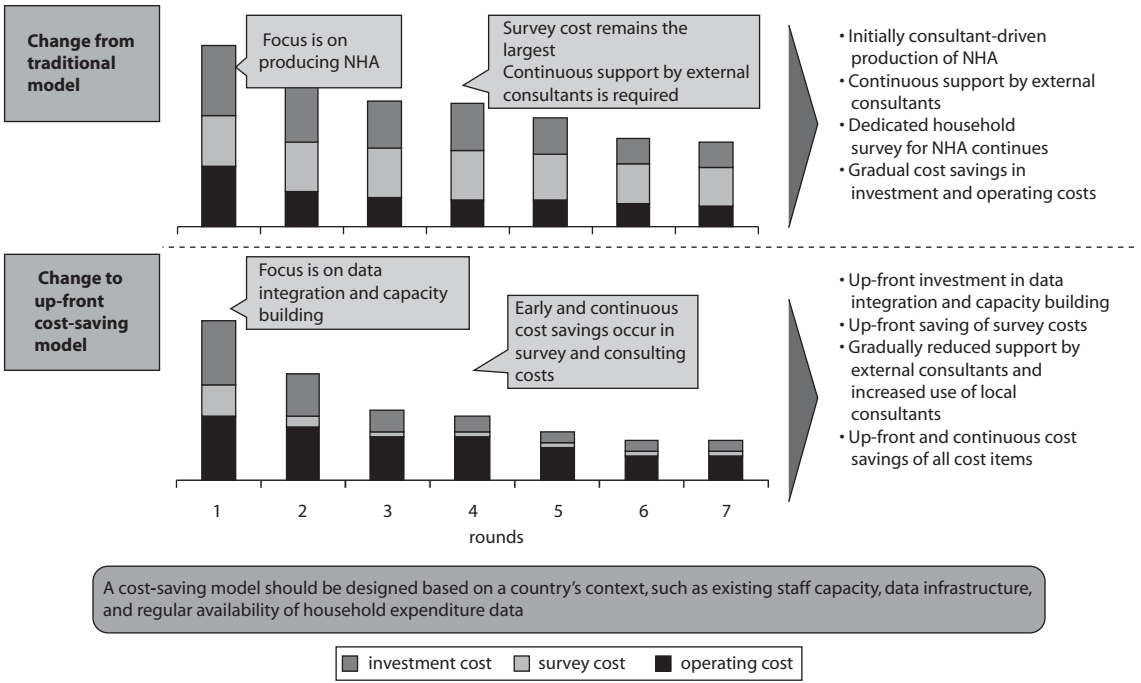
Alignment of Countries' Financial Ownership

The socioeconomic status of a country should affect its financing of NHA activities and cost-saving approaches. Figure 4.7 summarizes different approaches for low-income, lower-middle-income, and middle-income countries. Low-income countries, for instance, may need external financing across the NHA cycle, and they may need to conduct household surveys to supplement insufficient data infrastructure. A realistic financing approach for them may be to seek partial cost sharing of recurrent and data dissemination costs and to limit survey complexity to essential data for policy makers. Even in this situation, it should be possible to reduce consulting costs over time by standardizing the process and ensuring the necessary financing for effective use of NHA data by integrating them as tools for formal budgeting processes.

As the human and financial resources of a country improve, however, it can reduce its reliance on external financing and save survey and consulting costs by fully integrating the NHA data collection process into the existing data management system and by building local capacity. It is important for countries and development partners to align financial ownership of the NHA process with shifts in income status over time, from the perspective of long-term, collective planning.

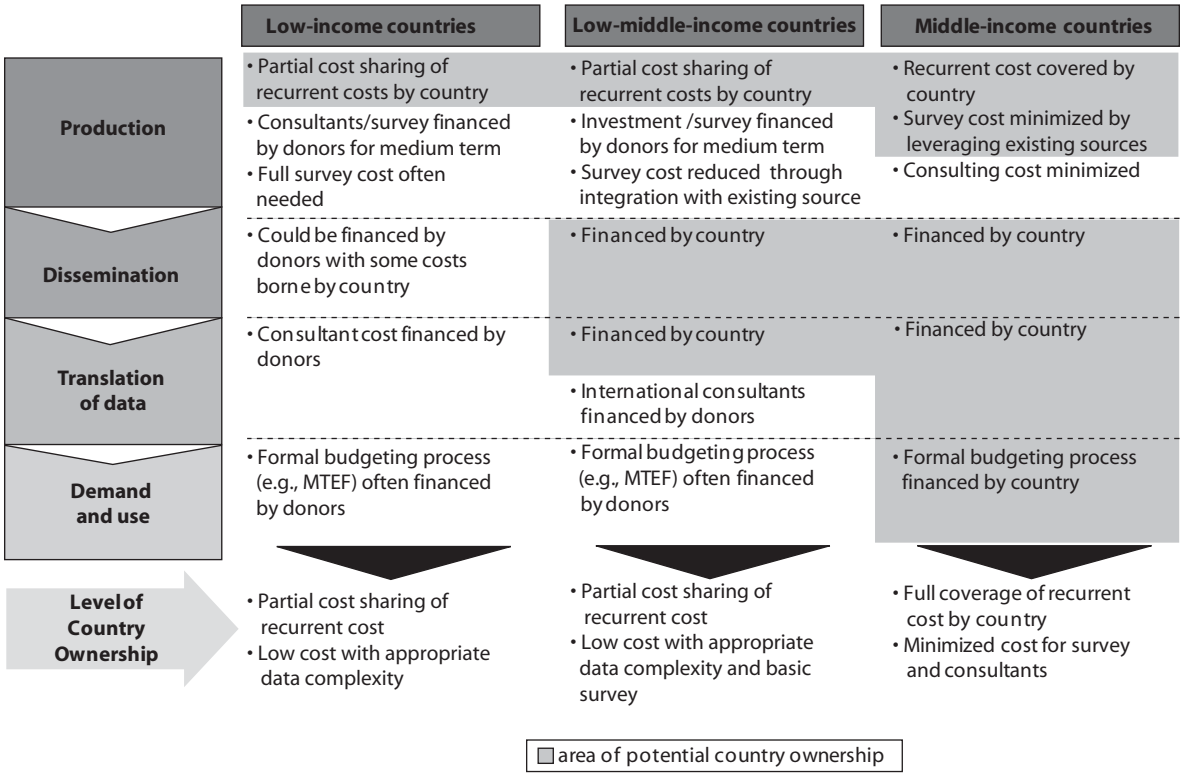
Driving the NHA cycle requires up-front investment and long-term financing of recurrent costs. However, as discussed in chapter 1, NHA can provide considerable benefit to countries and potentially improve their bottom lines. For example, Turkey, as shown in box 1.3, increased its total health expenditure using NHA as a monitoring tool and, through NHA analyses, identified a significant cost-saving opportunity (38 percent) with respect to the government's health spending. Despite these benefits,

Figure 4.6 Conceptual Illustration of Up-Front Cost-Saving Model



Source: Authors.
Note: NHA = National Health Accounts.

Figure 4.7 Examples of a Financing Framework for NHA Activities by Countries' Income Status



Source: Authors, based on country interviews.
Note: MTEF = Medium-Term Expenditure Framework; NHA = National Health Accounts.

the cost of NHA activities is fairly small, especially with the cost-saving efforts introduced in this chapter. For example, as introduced in chapter1, the cost for the latest round of production and dissemination of NHA data in Burkina Faso and Thailand represent 0.02 percent and 0.0006 percent of the respective governments' spending on health.[11] This suggests that investing in NHA activities is a cost-effective and smart investment for developing countries seeking to make better use of every dollar they spend.

Notes

1. Viroj Tangcharoensathien and Walaiporn Patcharanarumol (senior adviser and senior researcher, respectively, International Health Policy Program, Ministry of Public Health, Thailand), personal interviews, June 22, 2011.
2. Ketevan Goginashvili (chief specialist, Health Policy Division of Health Care Department, Ministry of Labour, Health, and Social Affairs, Georgia), personal interview, July 20, 2011.
3. Ketevan Goginashvili (chief specialist, Health Policy Division of Health Care Department, Ministry of Labour, Health, and Social Affairs, Georgia), personal interview, July 20, 2011.
4. Jacob Adetunji and Lisa Maniscalco (contracting officer's technical representative and technical adviser, respectively, U.S. agency for International Development, Washington, DC), personal interviews, September 7, 2011.
5. Walaiporn Patcharanarumol (senior researcher, International Health Policy Program, Ministry of Public Health, Thailand) and (technical officer, Department of Health System Financing, World Health Organization, personal interview August 15, 2011.
6. Jacob Adetunji and Lisa Maniscalco (contracting officer's technical representative and technical adviser, respectively, U.S. agency for International Development, Washington, DC), personal interviews, September 7, 2011.
7. Somil Nagpal (health specialist, Health Nutrition and Population, South Asia Region, World Bank), personal interview, 2011.
8. Douglas Glandon and Lara Lorenzetti (senior analyst and associate analyst, respectively, Abt Associates, Bethesda, MD), personal interviews, July 20, 2011.
9. Nora Markova (health expenditure and financing analyst, World Health Organization, Barcelona Office for Health Systems Strengthening), personal interview, August 2, 2011.

10. Ketevan Goginashvili (chief specialist, Health Policy Division of Health Care Department, Ministry of Labour, Health, and Social Affairs, Georgia), personal interview, July 20, 2011.
11. Boureima Ouedraogo (director general, Information and Health Statistics, Ministry of Health, Burkina Faso), and Some Tegwouli (director, Studies and Planning, Ministry of Health, Burkina Faso), personal interviews, 2011; Walaiporn Patcharanarumol (senior researcher, International Health Policy Program, Ministry of Public Health, Thailand), personal interview, June 22, 2011.

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CHAPTER 5

Translation and Dissemination of National Health Accounts

Although the production of National Health Accounts (NHA) alone provides a good factual basis to illustrate current health financing flows within a country, the data are not particularly meaningful unless key insights drawn from them are taken up by policy makers. For insights from NHA activities to translate into policy, results should be disseminated broadly to reach a wide variety of audiences. Thus, translation and dissemination play a critical role in the full cycle of NHA activities. Without them, data are little used, and key opportunities in health system reform may be missed. This chapter illustrates several lessons that have been learned from countries' experiences in their process of translation and dissemination. Although it is recognized that production plays an important role in the NHA cycle, details of the production process, including data collection, data management, and data quality, are discussed in the *Guide to Producing National Health Accounts* (World Bank, WHO, and USAID 2003).

This chapter surveys how insights from NHA can be translated to inform policy and illustrates the variety of dissemination mechanisms and products used to target key stakeholders in health. The chapter covers the following key points:

- Without the translation of large volumes of data into policy-relevant analyses and insights, as well as their dissemination to a broad audience,

stakeholders in health care may fail to capture important information about the performance of the health care system. They may also fail to appreciate the utility of NHA as an evidence base that can provide input to help the shaping of policy.
- Countries require a clear NHA dissemination strategy, with each dissemination product targeting one of a range of different stakeholders or audiences.

Translating Data into Insight for Policy Makers

A general challenge in using NHA data for decision making has been the weak link between data production, on the one hand, and the failure to effectively articulate the questions that NHA data help answer, on the other. In previous years, an emphasis on production has failed to address this critical link. Without the translation of data into key analyses and insights and the dissemination of that data to a broad audience, stakeholders in health may fail to see the utility of NHA products and therefore miss an important tool to help shape policy. Ultimately, translation to the policy phase involves overall country ownership of the NHA process, regardless of the mode of production or governance structure followed: this translation allows countries to champion key policy insights, increasing the likelihood that insights will be used in a meaningful way.

Country interviews with leaders on the production and use of NHA data reveal possible solutions to strengthen the links between NHA production, translation, dissemination, and use. This section first looks at ways in which translation may inform policy, and then at ways for such translation to be supported by policy makers and development partners.

Possible ways for countries to translate data to inform policy include the following:

- *Focus less on the tool and more on the answers that NHA can provide.* Providing answers to essential policy questions is the strongest selling point of NHA, as all policy makers increasingly need data to inform their decisions. By moving away from a discussion on NHA as a tool in itself toward a discussion on the data that policy makers cannot live without, one can easily make a case for NHA. The Republic of Korea is an example in which strong links are fostered between production and use. NHA data and Organisation for Economic Co-operation and Development (OECD) Health Data are regularly used to inform key policy debates. Furthermore, the sources of the data are frequently

cited in discussions on the public proportion of total health finance. In the buildup to the presidential elections, political parties have cited the NHA data and OECD Health Data figures to highlight Korea's low public health spending as a proportion of total health expenditures. Specifically, while the public share of total pharmaceutical spending remains at about the same proportion as the OECD average, Korea's share of inpatient expenditure falls far below the OECD average.[1] Figures such as these make the case for shifting public health spending from pharmaceuticals toward inpatient care.

- *Make the product digestible and policy relevant*. When large volumes of data (NHA tables) are translated into sharp and concise policy briefs, insights from NHA data are more likely to be absorbed and used as evidence to support decision making. India provides an example where NHA results revealed low public health spending compared with the high out-of-pocket payments incurred by households. This finding prompted the National Commission on Macroeconomics and Health (NCMH) to encourage the government to establish the National Rural Health Mission in India, which promoted greater public financing that led to lower household payments. It also led to a new generation of government-funded health insurance schemes that target the poor, such as Rashtriya Swasthya Bima Yojna (India MoHFW n.d.). The effect of the NHA processes was due to their link to a broad health reform agenda, commissioned by the NCMH to study the nexus between economic growth and the health sector.
- *Tailor your product to your audience*. The importance of dissemination cannot be overstated. Dissemination can come in the form of the policy briefs just referred to or as seminars and workshops to inform policy makers. These add relevance to the NHA findings and highlight their importance. In the case of analyses that are transmitted to the media and broader public, it is important that key messages be crisp, be free from technical terms, and have clear messages on what the data suggest.
- *Continue to invest in improving production and translation capacity to develop and respond to "policy windows" that can spur demand and use.* For example, in the United States, NHA production began in the 1960s and has continued routinely ever since. In 1980, projections for a five-year period began. Continuous improvements have since been made to these projections, which have allowed for the 75-year projections that are made today. During the 1990s, NHA projections were increasingly integrated into Medicare trust funds to inform key policy issues of federal relevance. Recently, NHA data triangulated with

demographic data have provided evidence for analyzing the current financial crises and U.S. debt issues. Demand for NHA data has grown over time, as have their levels of sophistication. Sustained production has allowed economists and statisticians to make incremental improvements to generate and capture a policy window for improving efficiency and equity in health spending.[2] The U.S. example illustrates that demand for NHA data may grow over time and that production need not start with demand for the data.

- *Triangulate NHA data with other data instruments and sources.* As has been seen, creating strong links between NHA and other data instruments and sources can generate cost savings. It can also facilitate translation of data into analyses and relevant insights for policy. The case of the Philippines illustrates how NHA data were triangulated with the Family Income and Expenditure Surveys and National Demographic and Health Surveys to illustrate discrepancies between insurance coverage and health financing sources—indicating a lack of effective coverage.[3] Whereas the private insurance scheme, PhilHealth, claimed a national insurance coverage rate of 85 percent, public social health insurance accounted for only 8.5 percent of all health financing sources. This gap indicates that 57 percent of health financing came from households' out-of-pocket payments (Lavado et al. 2011). The burden on households also was increasing over time. These results served as the impetus to move policy discussions from coverage to effective coverage.[4] Essentially, the link between NHA data and other data sources revealed a disparity between the national health insurance policy and the government's ability to implement it through the provision of financial access to care.

In Thailand, also, NHA data have been used with other data instruments and sources to inform health policy (box 5.1). In particular, the process has led to the projection of various scenarios in the Medium-Term Expenditure Framework (MTEF) for the health sector, highlighting how the government can invest more in public and preventive health programs.

Possible ways for policy makers and development partners to support translation include the following:

- *Engage political leaders through the NHA policy advisory group.* Policy advisory groups with a solid skill set in translation can also strengthen the links between production and demand for data. A policy advisory

Box 5.1

Translation and Use of NHA with Other Data Sources and Instruments in Thailand

Thailand recognizes that NHA are a key input that can be used to inform health sector decision making, but they need to be put in context with other data sources and instruments used by the country's International Health Policy Program (IHPP) and its NHA working group. For example, Thailand uses NHA in conjunction with hospital administrative data, such as the International Classification for Diseases or Diagnosis Related Groups to estimate health expenditures for curative and preventive care, by disease category. The IHPP also improves the National Statistical Office's annual household income and expenditure surveys to ensure accurate estimation of household out-of-pocket payments for health. These figures feed into the NHA. Household survey results are disseminated approximately four to six months after their production to ensure that timely information is used to inform health resource tracking systems such as NHA.

Thailand also uses NHA in conjunction with other instruments—for example, to inform the MTEF for the health sector for the 10th National Economic and Social Development Plan. The MTEF highlighted several scenarios that envisioned the government investing more in preventive health care and health promotion to address chronic noncommunicable diseases, among other things.

Source: World Bank 2008.

group can include a broad array of stakeholders from across government, the private sector, development partners, and civil society. Members can request or even require that their organizations produce needed information or validate available figures while serving as an important and authoritative conduit for communicating findings to policy makers. However, policy advisory group members are likely to add more value when they have a minimum skill set—for example, technical access to data, ability to extract meaningful insights from data and offer suggestions of analyses for the production team, and strong communication and interpersonal skills to communicate results to the production team and to policy makers.

- *Steer support by development partners away from production only and engage them in translation and use.* Development partners can also support translation by providing technical expertise, financing, or capacity building that will ultimately encourage the uptake of insights from

data. Although sustainability requires that the institutionalization of NHA be country driven, donors can still support countries in their full cycle of NHA activities—from production to translation and use—without taking a directive, top-down approach.

Although the institutional home and style of production are country specific (affected by a country's political, economic, and social climate), the translation of data to insights that can inform policy and serve as a critical link is often missing, regardless of the country's governance model. Production generates data and results; however, governments should recognize that this process is not an end in itself but a means to using data for decision-making purposes.

Disseminating NHA Outputs

Dissemination is a critical component in the full institutionalization cycle of NHA activities: it involves the development of a clear strategy to share data through a variety of information channels to target audiences in the country. Timely dissemination of data upon the release of NHA results makes data available and accessible to a broad array of stakeholders in the public interest. For policy makers, it can highlight specific policy issues that are revealed by the raw data, and it is likely to optimize the uptake of insights from data to inform policy.

In Thailand, the dissemination of health resource tracking data has been effective in informing debates around the effective use of medicines. For example, when representatives from industry suggested that Thailand was spending too little on pharmaceuticals, a network of statisticians triangulated the data, allowing Thailand's International Health Policy Program to produce evidence to the contrary—emphasizing the country's sustainable use of generics as a cost-containing measure. The results were broadly disseminated to the media and throughout society, and the debate was discussed publicly through television and newspapers.[5] Use of NHA data thus brought transparency to public debate and enhanced accountability as a result.

In developed countries such as Korea, NHA are shared broadly, and insights from the data have contributed to key policy debates. In the first instance, the NHA are posted on Korea's health accounts website.[6] Press releases are also issued after the annual publication of the NHA report. Korea's NHA forum, under the Korean Association of Health Economics and Policy, has held workshops and planned other activities to expand its

user audience. The NHA focal point has strong links to the Ministry of Health and Welfare as a result of previous work experience at the ministry and a current advisory role, which facilitates the uptake of insights from the data.[7] Thus, broad sharing of NHA results helps promote transparency, adds credibility to the numbers that the NHA provides, and, as a result, helps inform key policy debates.

In a variety of countries, however, data production rather than dissemination has been prioritized. Examples of countries where this has occurred include Burkina Faso, India, Mali, and Serbia. The emphasis on production has been reinforced by international workshops and conferences that tend to focus on the bottlenecks in production rather than those in dissemination and use. In addition, there remains a dearth of financial resources to invest in dissemination. Although a routine budget line item may support production, budgets often do little in the way of supporting dissemination. This gap has been observed in a variety of countries.

In Serbia, for example, the termination of donor funding for the NHA process has left only limited financial resources to support dissemination. Whereas previously, eight workshops were held to launch and disseminate NHA results, dissemination is currently limited to posting data on the Ministry of Health (MOH) website, producing annual reports, and sharing data with the World Health Organization (WHO). The Serbian NHA team is trying to circumvent this issue by presenting findings at internal and external workshops for continuing medical education.[8]

Mali is a unique example of a country that has sought to overcome this challenge. In previous NHA rounds, data were available directly from the MOH, development partners, or the National Institute for Public Health Research, but were not broadly disseminated. Its draft three- to five-year NHA institutionalization plan seeks to prioritize dissemination through a broad strategy geared toward Mali's parliament, nongovernmental organizations (NGOs), the MOH, and the Bureau of Statistics. Results will be disseminated through the Internet, workshops, policy briefs, and flyers.[9]

In Ghana, plans are under way to establish a clear dissemination strategy, as part of a draft NHA institutionalization strategy. For example, specific policy papers will be commissioned and disseminated as full reports or policy briefs. This effort will ensure that data can feed into policy discussions, for example, on how to prioritize and allocate resources to the health sector. Ghana officials also plan to host a competition for the best paper on the use of NHA data to affect policy. Overall, Ghana aims to print and disseminate total results and specific policy analyses, to

present analyses at various forums, and to promote continuous advocacy with senior policy makers to increase demand for NHA data.

Dissemination should occur at two points in the cycle of NHA activities. First, basic tables and raw data should be made available to hold initial discussions with the providers of the data and to draw broad conclusions. Second, additional dissemination of results should take place following the translation of the initial data into policy-specific analyses and reports. Whereas the first dissemination plan can target policy makers, the media, and perhaps academic or research entities, the second dissemination stage could focus on senior policy makers and those who are able to have a direct effect on planning and budgeting. Box 5.2 describes the two stages of dissemination in the example of the Philippines.

Unfortunately, countries often lack a clear dissemination strategy with clearly specified products and channels that are tailored to target audiences,

Box 5.2

Dissemination via Workshops and Forums in the Philippines

The institutional home for NHA in the Philippines, the National Statistical Coordination Board (NSCB), convenes multilateral forums to discuss the needs and concerns of data-producing agencies.[a] First, raw data are put into the public domain, allowing independent researchers and others to use the data for research; this process generates evidence and independent commentaries on the health sector.[b] The annual National Health Research Forum of the Department of Health then allows for dialogue between the NSCB and users and allows the NSCB to present its findings, highlight the data input needed, and share its plans on how to use the data.

The Inter-Agency Committee on Health and Nutrition Statistics (IAC-HNS) serves as another forum to promote dialogue between producers and users. The IAC-HNS, chaired jointly by the MOH and NSCB, contains 20 regular members from both the producers and the users of health statistics. The committee meets quarterly to discuss the problems faced by NSCB statisticians in production, areas where help is needed, and mechanisms to facilitate the transfer of data from data-producing agencies to the NSCB. The association of health maintenance organizations is also a regular participant in the IAC-HNS.

Source: Racelis 2008.
a. Jessamyn Encarnacion (director, OIC, Social Statistics Office, National Statistical Coordination Board, the Philippines), personal interview, June 14, 2011.
b. Sarbani Chakraborty (senior health specialist, World Bank), personal interview, June 9, 2011.

including stakeholders within and outside of government. Frequently, data are not shared outside of government, making it difficult for universities, academics, think tanks, and other independent institutions to access the information. For example, dissemination of NHA results in India currently includes a launching ceremony or workshop organized by the Ministry of Health and Family Welfare (MoHFW) to highlight key findings. Results are also posted on the websites of the MoHFW and WHO.[10] Despite these steps, dissemination remains limited, a problem attributable to weak ownership of and demand for the data.

Thailand, however, provides an example of a country that has sought to strengthen dissemination. The country strongly emphasizes dissemination and information sharing. NHA results are disseminated every two years, with NHA matrixes posted on Thailand's International Health Policy Program website in Microsoft Excel, as well as in the form of policy briefs (World Bank 2008). Briefings are held to debate specific policy issues. Results are also publicized in the media to highlight particular policy issues. Meanwhile, feedback from interested parties (for example, comments and queries from the private hospital sector) is received via e-mail. This exchange fosters transparency in the policy-making process. Tanzania, another good example, has strengthened its commitment to improving dissemination and information sharing. Although the first NHA round saw little done in the way of dissemination, there has been a much greater effort to improve dissemination in the second and third rounds. For example, the second round of NHA results were disseminated broadly at the Joint Annual Health Sector Review, where all development partners were present, including members of the public sector (for example, the MOH, the Ministry of Finance [MOF]) and the private sector. NHA results were posted online at the website of the Ministry of Health and Social Welfare. In addition, policy briefs on subaccounts, such as reproductive health, were published online in conjunction with the U.S. Agency for International Development's Health Systems 20/20 project. Findings were also presented at the International Health Economics Association meeting in Beijing in July 2009. For the third round (in progress), efforts also will be made to use local media and newspapers.[11] Together, these various avenues of dissemination have helped foster transparency in the policy-making process.

Even low-income countries, where a dissemination strategy is not yet in place, can broadly disseminate data and analyses. For example, in Afghanistan, NHA findings were highlighted with much fanfare through a launching ceremony in April 2011. Senior officials from various ministries (including the MOF); hospital directors; and representatives from

the central statistics organization, NGOs, and the donor community were among those invited. The event received significant coverage on local television and radio and has motivated significant discussion on how to use data to inform health policy. Once the NHA report is completed, it will be printed and published on the government's NHA website and translated into local languages. However, the data are already being communicated by e-mail to various ministries (Afghanistan MoPH 2011).

Similarly, the Seychelles is now finalizing the first round of NHA activities and has plans to disseminate the results. Once confirmed, the results will then be forwarded to a cabinet of ministers. The final report will be posted on the MOH website, and hard copies will be distributed to stakeholders. The Seychelles also intends for its NHA data to be used by a wide variety of stakeholders, including the MOH, MOF, WHO, private health care practitioners, and private pharmacies.[12]

Even in resource-constrained settings, then, countries can maintain a broad dissemination strategy in various ways. Malaysia provides a good illustration of this point (box 5.3).

Box 5.3

Financial Resources for Dissemination in Malaysia

Malaysia disseminates NHA data through policy dialogue sessions, held every two years, that involve public and private stakeholders in health. Group work during these sessions highlights important issues in the NHA along with areas that need to be addressed broadly, as well as the issues that require the attention of individual agencies. The output of these sessions is compiled and disseminated to stakeholders and key policy makers (World Bank 2008). Final NHA products are disseminated to all stakeholders in health, either in hard copies of the reports or in CD format. Summaries of the data are also documented in the *Health Facts* booklet, a pocket-size health statistics reference that is produced annually by the MOH. This booklet is disseminated widely in hard copy and online. A major obstacle, however, lies in generating additional funds for printing and postage. Yet Malaysia has overcome this challenge by disseminating the data in CD format, and Web-based data uploads are currently being considered.

Sources: Zainuddin 2011; Jameela Zainuddin (head, Malaysia National Health Accounts Unit, Planning and Development Division, MOH, Malaysia), and Rozita Husein, (head, National Health Financing Unit, Planning and Development Division, MOH, Malaysia), written communication, 2011.

Table 5.1 Examples of Dissemination Products and Main Target Audiences

	Type of dissemination				
	Internet (e-mail, website)	*Hard or soft copies of reports, CDs*	*Workshops, forums, training sessions*	*Policy briefs*	*Press releases, media sound bites*
Main target audience (examples)	Civil society, researchers, universities, policy makers	Producers, researchers, universities, civil society	Policy makers, researchers	Policy makers, civil society, researchers	Civil society, researchers

Source: Authors.
Note: CD = compact disc.

It is important for countries to define target audiences and prioritize dissemination products according to their available resources. Table 5.1 shows some variations in the dissemination output of countries.

Other innovative solutions for the dissemination of NHA results are also available. One approach relies on integrating the NHA results with other data instruments and sources. In many countries, statistical reporting systems fail to use indicators produced from NHA data because NHA are frequently considered a tool to be used in parallel with existing health information systems. This can be remedied through the integration of NHA indicators in health information systems with other statistical documents. Investments in information technology (IT) solutions (for example, a common platform or health information system for managing agencies' data) can also help harmonize data sources and instruments (for example, MTEF) so that the NHA are not perceived as a standalone, separate system. The linking of NHA data with other important health databases and systems facilitates translation of data to inform policy.

Countries can also leverage regional health-accounting networks to highlight and disseminate NHA results. This has been particularly important for the Asia-Pacific National Health Accounts Network and Euro-Asia network, where members can present their NHA findings and discuss methodological concerns and possible applications to policy with their peers (see chapter 6).

Regardless of the mode of dissemination chosen, countries must have a clear communication strategy in place that is tailored to specific audiences, along with the financial support that is needed for routine

dissemination. In this way, information can be shared broadly, encouraging the uptake of insights from data production for use by policy makers in decision making.

Notes

1. Hyoung-Sun Jeong (professor, Department of Health Administration, College of Health Science, Yonsei, University, Republic of Korea), personal communication, August 11, 2011.
2. Daniel Waldo (senior economist, Actuarial Research Corporation), written communication, September 17, 2011.
3. "Effective coverage" is defined here on the basis of policy dialogue in the Philippines.
4. Sarbani Chakraborty (senior health specialist, World Bank), personal interview, June 9, 2011.
5. Viroz Tangcharoensathien and Walaiporn Patcharanarumol (senior researchers, International Health Policy Program, Ministry of Public Health, Thailand), personal interview, June 22, 2011.
6. "A System of Health Accounts," http://www.healthaccount.kr.
7. Hyoung-Sun Jeong (professor, Department of Health Administration, College of Health Science, Yonsei University, Republic of Korea), personal communication, August 11, 2011.
8. Milena Gajic-Stevanovic, (head, National Health Accounts Office, Institute of Public Health of Serbia), personal interview, August 2, 2011.
9. Driss M. Zine-Eddine El-Idrissi (senior economist, World Bank), personal interview, June 21, 2011.
10. Somil Nagpal (health specialist, Health Nutrition and Population, South Asia Region, World Bank), personal interview, 2011.
11. Mariam Ally (head, Health Care Financing Unit, Ministry of Health and Social Welfare, Tanzania), personal interview, July 7, 2011.
12. Jean Malbrook (economist, Ministry of Health, Seychelles), written communication, 2011.

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CHAPTER 6

The Value of Global and Regional Partners

Previous chapters have explored approaches that countries can take to strengthen each of the steps of the cycle of National Health Accounts (NHA) activities—including governance, capacity building, and financing—based on their income levels and skills profile. Moreover, international and regional organizations can also play a critical role in supporting and facilitating the institutionalization of the NHA process at the country level. This chapter explores the potential value that global partners and regional agencies can add to NHA institutionalization.

This chapter covers the following key points:

- Some coordination at the global level may help improve the accountability and transparency of the NHA process at the country level, facilitating the use of internationally comparable data.
- International development partners can add value to countries by (a) refining and updating international statistical frameworks and guidelines, (b) serving as repositories of knowledge to build institutional capacity, (c) promoting and facilitating the translation of data into policy-relevant data, and (d) improving transparency in their own financial flows.

- Regional agencies such as the World Health Organization (WHO) and its regional offices, regional NHA networks, and regional observatories can further support country-level NHA activities.
- Regional agencies can add value to countries by facilitating peer-based learning among member countries, serving as a repository of knowledge and best practices, and providing cost-efficient technical expertise. However, regional collaboration requires overcoming financing and governance challenges in the long term.

Global Partners

Coordination at the global level can help support institutionalization across the full cycle of NHA activities at the country level by promoting accountability and transparency through global initiatives and governance structures, establishing international standards for health accounts, and facilitating global access to internationally comparable data. Moreover, international development partners can add value by (a) serving as a repository of knowledge to build institutional capacity and facilitate the exchange of information, (b) facilitating the link between data and issues relevant to policy, and (c) improving transparency in the financing of health resource tracking activities.

Global Initiatives to Improve Accountability and Transparency

In the face of global financial and fiscal constraints, governments around the world are demanding greater accountability on the use of funds, whether they are domestic or external. In such an environment, there is increasing global momentum to improve accountability in health resource tracking as a critical activity for benchmarking progress toward the achievement of global health initiatives, such as the Millennium Development Goals (MDGs).

In January 2011, WHO convened the Commission on Information and Accountability for Women's and Children's Health for improvement in worldwide reporting, oversight, and accountability for women's and children's health, with increased pledges worldwide to achieve MDGs 4 and 5—to reduce child mortality and improve maternal health. The commission proposes a framework for global reporting, oversight, and accountability for women's and children's health that includes tracking results and resource flows at global and country levels, creating a system to monitor whether pledges for external assistance for women's and children's health are fulfilled on time, whether resources are spent wisely and transparently,

and whether the desired results are achieved (Commission on Information and Accountability for Women's and Children's Health 2011).

Specifically, the commission calls for new targets in health resource tracking; that is, by 2015, among all 74 countries where 98 percent of maternal and child deaths occur, track and report at least two aggregate resource indicators: (a) total health expenditures by financing source, per capita, and (b) total reproductive, maternal, newborn, and child health expenditures by financing source, per capita. That goal is based on the premise that tracking financial resources (a) provides critical information that helps increase the accountability of governments to their citizens, (b) shows whether countries have spent funds according to the priority areas budgeted for in their national health plans, (c) supports more informed policy making, and (d) enables money spent to be associated with results achieved (Commission on Information and Accountability for Women's and Children's Health 2011). The commission took great care in its recommendations to articulate that efforts to track indicators for women's and children's health should complement country- and global-level NHA activities, rather than drive them. This initiative, led by countries and development partners, to coordinate global accountability sheds light on the importance for countries to institutionalize NHA as a key tool for health resource tracking.

Global Coordination for International Comparability

International comparison helps countries measure their health financing performance compared with peers (box 6.1). The Organisation for Economic Co-operation and Development (OECD) is mandated by its member countries to work toward international comparability of health spending. In 2000, OECD (2000) released a System of Health Accounts (SHA) with the aim of establishing an international statistical framework for the reporting of health expenditure and financing data. In 2003, the World Bank, WHO, and U.S. Agency for International Development (USAID) developed a methodological guide on how to collect data and produce NHA that built on the principles and concepts established by the SHA. The result was the NHA Producer's Guide (PG) (World Bank, WHO, and USAID 2003), and its primary goal was to help developing countries prepare their own NHA systems. Although countries can develop and use their own financial reporting system that reflects the unique aspects of their health system, the use of the SHA and the International Classification for Health Accounting enables international comparisons of the data produced, helping policy makers understand

Box 6.1

Using NHA for International Comparisons

The Asia-Pacific region provides several examples in which health accounts have been used for intercountry comparisons at the national level and have allowed the decomposition of national estimates to yield program-specific comparisons.

Intercountry comparisons have been undertaken for a variety of analyses using NHA data in the Asia-Pacific region. One notable example is a study of regional comparisons of national health spending that have been analyzed for the Asia-Pacific Joint Regional NHA Collections, led by the Asia-Pacific National Health Accounts Network (APNHAN) together with the Organisation for Economic Co-operation and Development (OECD) in the Republic of Korea, using the OECD System of Health Accounts (SHA) framework. This analysis combines health accounts and nonfinancial data. It examines health expenditure levels and trends from an international perspective, decomposing health financing by function, provider, and source (OECD 2010). The report highlights a great deal of variation in total health spending across Asia-Pacific countries—from US$3,448 purchasing power parity (PPP) in Australia to US$24 PPP in Myanmar—illustrating health spending that is highly correlated with gross domestic product (GDP). The report also points to variations in the growth rate of real per capita public health spending over time—with 4.9 percent in the Asia-Pacific region compared with 4.1 percent for OECD countries over the period 1998–2008. Yet other countries experienced a decline in health spending, for example, Brunei Darussalam, Nepal, and Papua New Guinea. In some cases, this decline was due to broader government pressures to reduce public spending. Finally, private sector health spending was found to exhibit large variations by country and constituted the major source of private financing for health—again with strong intercountry variations.

NHA analyses have also facilitated analytical work on the distribution of health financing in the Asia-Pacific region. The Equity in Asia-Pacific Health Systems (Equitap) network, a collaborative effort of more than 20 research teams in the Asia-Pacific region, has examined equity in national health systems in the region with links to NHA data. These efforts include several intercountry analyses on benefit incidence, progressivity of health financing, and the catastrophic impact of health financing.

NHA have also been used to facilitate intercountry comparisons for specific health services. As one example, NHA data were used in a World Bank multicountry

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Box 6.1 *(continued)*

study (2004) on the costs and financing of reproductive health (RH) services in South Asia. NHA data and other government estimates allowed for a full analysis of the costs of RH services incurred by governments, donors, and households in Bangladesh, Nepal, Pakistan, Sri Lanka, and the states of Rajasthan and Andhra Pradesh in India. Among other things, this study found the public-private health financing mix to vary by country in South Asia, with public spending on RH ranging from 15–16 percent (Rajasthan and Sri Lanka) to 42 percent (Andhra Pradesh). In Bangladesh and Rajasthan, private financing for reproductive health was two- or threefold that of public financing. In contrast, private financing in Sri Lanka was only half that of public financing. Moreover, financing for specific RH services was also found to vary by country. Importantly, even countries with similar income per capita exhibited strong variations in access to care. For example, Bangladesh, Nepal, and Sri Lanka have similar RH expenditures in relation to GDP, but Sri Lanka provides universal access to RH services, and Bangladesh and Nepal have less than one-half and one-third the levels of access, respectively. This variation may be attributed to differences in technical efficiency of public sector services across countries.

These examples further highlight the value of adopting international standards, harmonizing data (under the SHA), creating Web-accessible databases, and producing comparable reports on health financing to facilitate international comparisons.

Sources: Somanathan et al. 2004; OECD 2010.

their country's health spending in relation to their peers. The OECD-Eurostat-WHO Joint Health Accounts Questionnaire collects comparable and detailed health expenditure data (based on the SHA/PG) for about 35 OECD and European Union countries. The same questionnaire is also used in the Asia-Pacific regional health accounts collection.

The release of a revised SHA manual in 2011 by OECD, Eurostat, and WHO (2011) provides an updated global standard in health accounting that reflects new and emerging demands on health accounts, including greater responsiveness to the needs of non-OECD countries. In particular, the manual offers an updated international statistical framework for tracking financial flows from sources (external and domestic) to uses of funds. The addition of the SHA tables on sources of funds reflects a specific response to the particular needs of many non-OECD countries. In addition, the SHA manual includes significant revisions of classifications for

disease tracking that could better support the preparation of subaccounts by disease categories.

Global Resource Tracking Efforts

At present, a large number of resource tracking efforts are being led by a diverse group of stakeholders. A number of international development partners have invested resources to build capacity at the country level and have provided financial and technical assistance to assist developing countries in producing NHA. This section highlights a number of ways in which international development partners are contributing to this process.

Methodological development. Several entities play a role in methodological development and statistical standard setting. For example, OECD, Eurostat, and WHO recently released the SHA 2011 manual, which provides a global standard in health accounting and brings together the original SHA and the NHA Producer's Guide (World Bank, WHO, and USAID 2003; see appendix A). Other entities, for example, the Joint United Nations Programme on HIV/AIDS, use tools such as the National AIDS Spending Assessment to monitor the flow of HIV/AIDS funding.

Financing. Several financing entities support NHA activities at country and regional levels. These include the World Bank, USAID, the European Commission, the Asian Development Bank (ADB), and WHO country offices, all of which provide limited funding. Several other donor agencies also have invested in NHA activities over the years, such as the Bill and Melinda Gates Foundation, the German Agency for Technical Cooperation (GTZ), the U.K. Department for International Development (DFID), the Inter-American Development Bank (IDB), the Swedish International Development Cooperation Agency (Sida), and others. In addition, some organizations fund household surveys, which include health expenditure components (for example, MEASURE DHS).

Technical assistance (including capacity building). Several organizations play a key role in providing technical assistance, including capacity building, at country and regional levels. For example, WHO provides technical assistance to countries and supports regional capacity-building efforts through its regional offices. USAID supports a wide range of technical assistance and capacity-building support to various countries through its Health Systems 20/20 program. Other organizations, such as the Pan American Health Organization (PAHO) and Harvard University's

International Health Systems Group, are also providing technical assistance to support country-level NHA activities (Hjortsberg 2001).

The World Bank provides financial and technical support for NHA, often in conjunction with its Public Expenditure Review (PER). PER is one of the World Bank's core diagnostic tools designed to help countries establish effective and transparent mechanisms for allocating and using available public resources in a way that promotes economic growth and helps reduce poverty. NHA data are essential input for preparing the health sector component of PERs (see box 6.2). The World Bank has developed instruments such as its Public Expenditure Tracking Surveys (PETS)

Box 6.2

The Role of NHA in Formulating Policy: Examples from PERs

PERs are analytical tools that can be used to evaluate health system performance, can help ensure that resources are being allocated in ways that reflect national priorities, and are likely to improve efficiency and equity of the health sector. NHA data[a] are critical inputs for effective PERs. A review of 44 recently published PERs provides several examples demonstrating how NHA data can be used effectively; they also are reminders that well-targeted public policy cannot be made without such data. The following highlights just a few examples:

- ***Level of health spending.*** Recommendations on the level of health spending cited in PERs are often based on NHA data. Health spending indicators—such as public spending on health as a percentage of gross domestic product or public spending on health as a percentage of total government spending—can be easily compared to regional averages or to averages of countries of the same income level. In one example, the Sierra Leone PER of 2010 pointed to low levels of public health expenditures relative to international standards and a reduction in public expenditures in the share devoted to health. These observations were aligned with the dismal ranking of Sierra Leone in terms of health outcomes.
- ***Financial sustainability.*** PERs typically raise issues of the financial sustainability of the health sector based on NHA-type data. For low- and low-middle-income countries, issues of financial sustainability raised in PERs most frequently relate to the size of donor funding relative to domestic funding for health. Donor funding is consistently reported as being unpredictable and unreliable for long-term strategic policy formulation. Another financial sustainability issue, also

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Box 6.2 *(continued)*

raised in PERs using NHA data, concerns spending on specialized treatment abroad. For example, in the West Bank and Gaza PER of 2007, the amount of specialized treatment received outside the Ministry of Health was found to have reached unsustainable levels. In addition, the growing number of exempt beneficiaries and the decreasing revenues from payroll taxes has raised issues about the sustainability of the government health insurance system. The PER therefore recommended diversifying the revenue base of the government's health insurance scheme.

- *Equity and targeting of specific populations*. PERs typically raise issues of inequality or poor targeting for specific population groups, again using NHA-type data. For example, the Ukraine PER of 2008 analyzed the impoverishment and redistributive effects of high out-of-pocket payments borne by households. In the 2008 PER for Indonesia, benefit incidence analysis revealed that reforms were needed to address the regressivity of health care spending. Geographically disagregated NHA data also revealed disparities in funding across districts of the same region.

Source: Sylvestre Gaudin 2011.
a. The term *NHA data* is used loosely to include any type of data quantifying health expenditures by source or use.

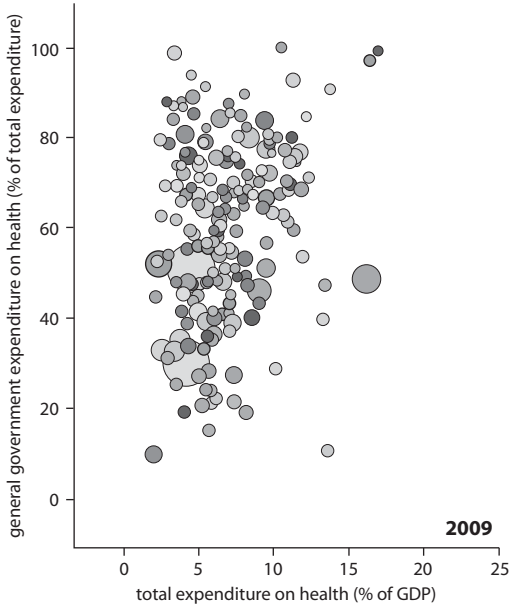
to collect information on the characteristics, financial flows, outputs, and accountability arrangements of service facilities and, in some cases, firms. Data collected from PETS would provide valuable inputs for refining and improving NHA. Finally, the World Bank conducts Living Standards Measurement Study Surveys, through which it supports government statistical offices in developing countries to strengthen the type and quality of household data used in developing policies, including data collection for NHA. Through its country operations, World Bank country staff also engages, at countries' request, in the strategic design for building evidence to inform policy.

Various organizations also play a role in providing technical assistance to support development of disease-specific subaccounts. For example, WHO has issued guidelines on creating reproductive health, HIV/AIDS, and malaria subaccounts that are based on the NHA methodology. Other agencies, such as USAID and the Joint United Nations Programme on HIV/AIDS (UNAIDS), assist countries in their production of disease-specific subaccounts for HIV/AIDS, malaria, tuberculosis, and reproductive health.

Data collection, estimation, and global and regional reporting. WHO collects health spending information from member countries and reports annually on a set of health spending indicators. Countries, as well as donors, increasingly use this information for both internal purposes and for cross-country comparisons. WHO also offers several tools to support these efforts: it recently launched an online Global Health Expenditure Database that permits easy access to the totality of NHA information. The tool allows for quick cross-national comparisons (figure 6.1), country-specific summary statistics, a variety of easy-to-produce reports (see appendix B), and figures on health expenditures. The Development Assistance Committee (DAC) of OECD also produces annual estimates of donor disbursements and financial commitments to health. DAC collects its information using its Creditor Reporting System. Other entities, such as UNAIDS, collect and report on spending on HIV/AIDS. It uses the National AIDS Spending Assessment methodology as its country resource tracking system.

Other support for health resource tracking. The Global Fund to Fight AIDS, Tuberculosis, and Malaria (the Global Fund), whose work is

Figure 6.1 Illustrative Bubble Chart from the Global Health Expenditure Database



Source: WHO Global Health Expenditure Database.
Note: All WHO countries are shown; the bubble size is proportional to the size of population.

founded on the principle of performance-based financing, also supports resource tracking efforts, although it does not directly produce health accounts. Its activities and grants are continuously being evaluated and monitored to ensure that performance benchmarks are reached. The GAVI Alliance also views monitoring and evaluation as integral to health system strengthening in its work to improve access to immunization in poor countries.

Further, the U.S. Global Health Initiative (GHI) represents a comprehensive governmentwide strategy for global health, focusing on the health challenges and needs of those in low- and middle-income countries. The GHI invests in 80 countries globally for a variety of global health programs, with an increasing focus on country ownership. Monitoring and evaluation are critical components of this effort.

Value Added by International Development Partners

Leveraging their global outreach, international development partners can also add value in supporting country-level NHA activities through (a) sharing information and serving as a repository of knowledge, (b) improving transparency in their own financial flows, at the global level, and (c) facilitating the link between data and issues relevant to policy, at the country level.

Global level. International development partners can facilitate information sharing and serve as a repository of knowledge for building country-level institutional capacity for NHA activities. For example, experienced consultants can share their technical knowledge (including standardized methodologies and tools) to collect, compile, validate, and translate data to inform policy. They can also share experiences from other countries by incorporating NHA indicators into routine surveys of living standards and other data instruments. This approach may include integrating health expenditure questions directly into Demographic and Health Surveys, Multiple Indicator Cluster Surveys, the World Bank's Living Standards Measurement Study Surveys, or other local surveys. International support should ensure that countries own and lead the institutionalization process—regardless of whether the production is conducted in-house or by local, regional, or international consultants—and should proceed from a long-term perspective rather than as a one-time exercise.

International development partners can also work toward improving accountability and transparency in the release of funds for the health sector that allows the countries to track and manage these funds. The OECD

DAC has forged major international development commitments, including the Paris Declaration on Aid Effectiveness in 2005, which established a monitoring system to assess progress and ensure that donors and recipients hold one another accountable for their commitments. Specifically, the Paris Declaration requires that international development partners harmonize efforts and use local systems in transferring funds to recipient countries, as well as simplify and share information to improve transparency in the flow of funds (OECD DAC 2008).

Country level. International development partners can facilitate the link between data and the translation of data into insights that inform policy. This may involve helping countries to think through various governance structures and develop a long-term capacity-building and financing plan for NHA, with emphasis on their use for policy making. In doing so, development partners can leverage their access to policy makers to encourage the uptake of insights from the data to inform policy, thereby fostering a culture of using data for decision making.

Donors also can leverage their active involvement in countries' planning and budgeting processes to support the integration of NHA data with other existing planning and budgeting instruments, for example, linking NHA data to the PER and the Medium-Term Expenditure Framework (MTEF). Essentially, linking NHA data to broader country planning initiatives will also support the sustained production of NHA data as well as their use to inform policy. In doing so, donors can support the use of standardized tools and the creation of a centralized health information repository at the country level, where a variety of data inputs can be accessed easily for use by NHA, PERs, and MTEF.

Global harmonization requires the buy-in of all key players (countries and regional and international stakeholders) and the changing of incentives for development partners (Nandakumar and Ravishankar 2011) to align their behaviors with the guidelines and targets set forth by the Paris Declaration and the Commission on Information and Accountability for Women's and Children's Health.

Regional Agencies to Support Country-Level NHA Institutionalization

In addition to global partners, regional agencies can further support country-level NHA institutionalization. Various regional agencies, such as WHO regional offices, regional NHA networks, and regional observatories,

can support country-level NHA activities by adding value from the perspective of individual countries, including offering the potential to facilitate peer-based learning among member countries, serving as a repository for knowledge and best practices to build institutional capacity, and providing cost-efficient technical expertise.

- ***WHO regional offices***. WHO regional offices can support countries by providing technical assistance in NHA production. WHO can offer its own strengths and interest as a producer of internationally comparable health expenditure information.

- ***Regional NHA networks***. Regional NHA networks aim to promote regional collaboration and cooperation to establish and maintain NHA activities within the regions. With support from regional agencies, bilateral partners, and regional development banks, six regional networks were established by various bodies from 1997 to 2003: Eastern, Central, and Southern Africa (ECSA), Network of the Americas on Health Accounts (REDACS), Asia-Pacific National Health Accounts Network (APNHAN), Middle East and Northern Africa (MENA), Francophone Africa (FA), and Euro-Asia Network (formerly the Commonwealth of Independent States network) (box 6.3). Furthermore, new sister networks are developing, such as one for the Pacific Islands (Pacific NHA), the sister network of APNHAN. Generally, the networks provide a platform for member countries to discuss experiences and share best practices regarding production. The networks have primarily focused on the production of NHA data; thus, their activities in promoting dissemination and use of the data have been limited.

- ***Regional observatories***. Regional observatories have the potential to play a role in supporting country-level institutionalization activities by linking the outputs from the regional NHA networks to policy. The aim is to build on the success of the European Observatory on Health Systems and Policies in developing similar but unique partnerships in other regions. The observatories aim to bring together highly respected academic institutions to undertake analyses, promote dialogue with key policy makers, and leverage additional funding from other agencies (World Bank 2011). Although still at an early stage of development, the vision for regional observatories is that they may play a role in guiding dissemination and translation of data to affect policy, thereby filling a critical gap in NHA institutionalization activities.

Box 6.3

Overview of Regional NHA Networks

Asia-Pacific National Health Accounts Network (APNHAN). The largest of the six networks, APNHAN was established in 1998 with support from a Rockefeller Foundation grant channeled through WHO headquarters. The Asia-Pacific Health Economics Network (APHEN) established APNHAN as a nonfunded project as well. Subsequently, the WHO Regional Office for the Western Pacific (WHO-WPRO) and WHO Regional Office for South East Asia (WHO-SEARO) have both provided funding on an ad hoc basis, either directly from their regional budgets or from country budgets, to finance APNHAN members to attend annual meetings. WHO-SEARO facilitated the initial discussion meeting to establish the network on the fringes of a WHO-SEARO organized meeting. At the time, both WHO-SEARO and WHO-WPRO equally supported grant applications made by APNHAN to secure its initial seed funding by endorsing applications made by APNHAN to other entities. Membership within APNHAN consists of either ministries of health (or other agencies responsible for commissioning health accounts systems) or specialized technical agencies or experts responsible for compiling and maintaining health account systems. One of the network's major accomplishments was the establishment of Equitap (Equity in Asia-Pacific Health Systems) in 2000, an initiative targeted at analyzing the various equity dimensions of health care financing and delivery. Over the years, APNHAN has cemented its relationship with the OECD, co-hosting its past five annual meetings with the OECD Korea Policy Centre in Seoul. Discussions mainly focus on technical issues related to production of health accounts under the SHA framework.

Eastern, Central, and Southern Africa (ECSA). Established in 1997, ECSA has a membership of 10 countries. Until 2001, its activities—largely consisting of periodic meetings to discuss technical matters—were financed by the WHO Regional Office for Africa. Since 2002, the East, Central, and Southern Africa Health Community (ECSA-HC) has led the ECSA network. Regional training workshops have been the norm, with activities increasingly geared toward boosting national demand for NHA—particularly through sensitizing policy makers during the annual ministerial health conference—and building local capacity to sustain long-term production of NHA.

Euro-Asia Network. In 2008, after five years of operating as the Commonwealth of Independent States (CIS) network, the network changed its name to Euro-Asia in an attempt to broaden its membership. The establishment of the

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Box 6.3 *(continued)*

network has been extensively supported by USAID and the WHO Regional Office for Europe. There has been a clear shift in leadership from development partners to network member countries, with workshops and meetings regularly alternating among member countries. Peer support and technical assistance provided by regional experts (beyond the scope of the network's regional training sessions) have played a large role in improving data systems and the quality of estimates in member countries.

Middle East and Northern Africa (MENA). When the MENA network was established in 1999, membership was limited to countries of similar socioeconomic status suffering from common health issues. It has since expanded almost threefold as countries of all income levels have begun facing challenges related to the long-term financial sustainability of their health systems. MENA network activities have largely been financed by the WHO Regional Office for the Eastern Mediterranean, though member contributions are increasing. To meet the rising demand for support, the network is redirecting its attention away from technocrats toward policy makers. Although technical workshops are still being offered on a regular basis to promote routine production, the network has recently achieved greater success in motivating countries' ministries to devote staff to NHA production.

Network of the Americas on Health Accounts (REDACS). Launched in 1997, REDACS has undergone substantial change over the years. It was initially known as the Latin America and the Caribbean (LAC) network, with membership limited to those countries undergoing significant health sector reform with an interest in the development of health accounts. Training sessions were heavily focused on refining NHA methodology, with the Pan-American Health Organization assisting countries in the production of satellite health accounts. Nevertheless, minimal funding left the LAC network mainly inactive between 2000 and 2008. In 2008, the network was reactivated as an initiative of *Fundación Plenitud* and the Ministry of Health of the Dominican Republic. Today, REDACS operates as a branch of the LAC Health Observatory.

Pacific NHA Network. The Pacific NHA network is currently in the process of being launched. It is envisaged that the network will be governed by a coordinating body or secretariat (chaired temporarily by WHO). A steering committee (policy advisory group) will provide strategic guidance. Members of the committee will be elected, and representation can include member states as well as other research entities (for example, Fiji National University). A technical resource center

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Box 6.3 *(continued)*

will foster capacity building. The network plans to focus initially on data collection and production, but will include dissemination and use of data to inform policy going forward. Member states have requested workshops to assist them in writing policy briefs using NHA data.

Source: Authors, based on regional network studies conducted by Sakthivel Selvaraj (APNHAN), Jeff Tshabalala (ECSA), Jens Wilkens (Euro-Asia), Osmat Azzam (MENA), and Magdalena Rathe (REDACS), and interviews with Martina Pellny and Wayne Irava (Pacific NHA).

Potential Value Added by Regional Activities

Regional activities have the potential to add value to countries in their NHA institutionalization activities in the following ways.

Promote peer-level knowledge sharing and learning. Regional activities can serve as forums in which producers of the data can share results and discuss concerns regarding production (box 6.4). They allow producers to communicate with their peers, present key findings, and receive training on NHA concepts and methodology. For example, to facilitate peer-to-peer learning and the sharing of information, the Euro-Asia network has leveraged a common language and cultural understanding among members, common health information systems and statistics, and similar health system structures.

Countries within the region have also benefited from regional workshops and forums. In Serbia, for example, the EURO-EMRO (Europe–Eastern Mediterranean) regional workshop has been seen as an invaluable tool in helping Serbia to recognize NHA results as official health statistics. The development of a Health Evidence Law would mandate the submission of data inputs required for NHA production, delineate production responsibilities, and so forth (as done in Georgia). The head of Serbia's NHA office has been part of the working group involved in the law's formulation, guided by consultants from Slovenia; to date, such a law has not been introduced, however, and its status remains ambiguous. This regional workshop has also benefited countries by facilitating the sharing of experiences (both positive and negative) encountered in production cross-nationally and by developing local solutions to those challenges. In this way, regional collaboration has created a sense of camaraderie and support among peers.[1]

Peer-level discussions can also occur through online networks to facilitate the exchange of information after regional meetings. In addition,

Box 6.4

Capacity Building and Use of Data for Decision Making in the Pacific NHA Network

The Pacific Island countries have been working to establish and develop NHA systems for more than a decade. As discussed in box 6.3, recent efforts have included developing a network for NHA and evidence-based policy making in the Pacific. A number of Australian institutes are affiliated with the Pacific NHA network, as well as the Institute for Health Policy from Sri Lanka. However, the network's core institution will be a technical resource center, and the Centre for Health Information, Policy and Systems Research (CHIPSR) at Fiji National University (FNU) has been designated as the technical resource center.

The aim of the center is to build local capacity (rather than use international consultants), by creating a cadre of individuals from across the Pacific Islands who are educated in health financing and health accounting at FNU or the University of the South Pacific. These individuals can then support NHA activities within the ministries of their home countries. It is expected that the center will be able to spark conversations about what is happening in NHA throughout the region, inform countries of new methods, serve as a guide on securing data inputs, and act as a sounding board for methodological questions as needed. For some of the smaller Pacific Island countries, the center is expected to take over the routine production of NHA data fully or partly, in close cooperation with their respective ministries of health.

The Pacific NHA network plans to focus on data collection and production at first, but efforts will extend to the dissemination and use of data to inform policy in the future. At its inception, member states requested workshops for assistance in writing policy briefs using NHA data. The network also aims to have a designated NHA focal point within the MOH of each member country, where production may or may not reside. The goal is to ensure that the MOH owns the NHA institutionalization process and that NHA activities have a permanent home, regardless of where production occurs. Although funding remains limited, the Pacific NHA network is currently leveraging the support of FNU, WHO, and development partners such as the affiliated institutes to support training and workshops. APNHAN provides financial support directly to CHIPSR and therefore the Pacific NHA network. Financing of activities is conducted on an ad hoc basis and includes funding for a single regional training workshop held in 2011 (costs shared with WHO) and funding to assist CHIPSR in coordinating the NHA and SHA data

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Box 6.4 *(continued)*

collection from Pacific Island countries. Despite this effort, additional financial support is needed for the network.

Still, the network has been successful in creating awareness of NHA and serving as a platform to affect policy change. For example, the network has helped raise awareness about the use of NHA, given that funding by external donors and development partners in health is relatively high in the Pacific. There is therefore a great need to apply a recognized and comparable methodology to track sources of funding accurately—for the sake of greater aid effectiveness. The NHA process also provides a fairly complete picture of all health expenditures and sources—not only of those provided by external partners—and it is also important for Pacific Island countries to be informed of these. There was evidence of interest in NHA on a higher political level at the June 2011 meeting of health ministers; all 22 Pacific Island countries identified their top 10 priorities in health, and one of these was to improve health financing, including for the production and use of NHA data as a tool to guide policy decisions.

Sources: Martina Pellny (technical officer, Health Services Development and Health Care Financing, WHO Office for the South Pacific) and Wayne Irava (coordinator, Centre for Health Information, Policy, and Systems Research, Fiji School of Medicine, Fiji National University), personal interviews, August 22, 2011.

regional agencies can help noninstitutionalized and institutionalized countries to form partnerships for an exchange of information. For example, the new Pacific NHA network is linked and affiliated with APNHAN to leverage the expertise and knowledge available in the region including Asia and Australia (APNHAN 2010; ADB and WHO 2010). Although still in its infancy, REDACS plans to include the United States and Canada in its networks so that countries in Latin America and the Caribbean can learn from the experiences of countries that have more experience in NHA institutionalization (Rathe 2010).

Serve as a hub or repository for data and best practices. Regional agencies also have the potential to gather evidence on regional and global best practices on NHA institutionalization and share those with member countries. They can further assist members in conducting country assessments and developing implementation plans for institutionalization. In particular, APNHAN has organized technical sessions for the sharing of country experiences in NHA estimation and best practices in estimating households' out-of-pocket expenditures (box 6.5). Under APNHAN,

Box 6.5

The Equity in Asia-Pacific Health Systems (Equitap) Project

NHA networks have facilitated analytical work on health financing, particularly in the Asia-Pacific region. One example is the Equity in Asia-Pacific Health Systems (Equitap) network, a collaborative effort of more than 21 research teams in the Asia-Pacific region engaged in examining equity in NHA systems in the region. Equitap was originally established as an initiative of APNHAN, in collaboration with Erasmus University (the Netherlands) and the London School of Economics (Equitap 2005). Equitap's founding members were NHA teams that wanted to extend their NHA work to examine how health financing flows were distributed across their populations.

The Equitap network undertakes regular intercountry analyses of benefit incidence, progressivity of health financing, and the catastrophic impact of health financing. Specifically, Equitap has assessed the benefit incidence of public health care subsidies, exploiting detailed NHA data to allow for variation in unit expenditures across health services, facilities, and regions. Equitap research has shown that Hong Kong SAR, China, achieves one of the most pro-poor distributions of all public health expenditures in the world, whereas public health care spending is moderately pro-poor in Malaysia and Thailand and evenly distributed in Sri Lanka (O'Donnell et al. 2005b).

In addition, Equitap's study on the progressivity of health financing illustrated the structure and distribution of health care financing in 13 Asian territories, combining health accounts and household survey data on household payments to estimate the distribution of health financing. An important finding from this study was that more affluent groups generally contribute more as a proportion of ability to pay in low- and lower-middle-income territories and that in developing Asia (unlike in Europe), indirect taxes are universally progressive (O'Donnell et al. 2005a). Moreover, Equitap's study of the catastrophic impact of health financing on households revealed that, despite the concentration of catastrophic payments on the better-off population in the majority of low-income countries, out-of-pocket payments still push many families into poverty. In another study, 2.7 percent of the total population were pushed below the poverty threshold of US$1 per day by health care payments (van Doorslaer et al. 2005).

Note: Erasmus University and the London School of Economics are no longer members of Equitap. Equitap has built sufficient capacity so that it no longer needs technical assistance.

experts reviewed current methods and best practices for estimating these expenditures and made recommendations for improving and harmonizing estimation in the future. This exchange has helped improve data quality among countries within the region.

Provide cost-efficient technical assistance with regional expertise. Regional agencies can also be used to generate cost savings for countries by creating a pool of regional consultants to provide technical assistance and expertise. This pool of experts can facilitate recruitment of staff members needed for production. In particular, regional consultants can support countries just embarking on NHA activities at costs lower than those of international consultants. They can also be effective in identifying data sources, coaching local staff members, and managing local consultants with their knowledge about local data systems in a common, local language. For example, within the Euro-Asia network, regional consultants were sent to Belarus to guide NHA production, identify data sources, examine national health statistics systems, and highlight ways to improve the existing system. The consultants helped Belarus create an NHA database and worked to improve data quality. In Uzbekistan, a regional consultant worked closely with the leader of a local working group and effectively helped her identify options for efficient data collection and communicate with local consultants in the local language. REDACS (formerly the LAC network) has also been able to improve the cost-effectiveness of NHA production for member countries by building a data repository for countries to access technical assistance at the regional level (Rathe 2010).

Challenges to Materializing of the Value Added of Regional Agencies

Although regional agencies can add value, they require both substantive financial commitments and a sound governance structure and coordinating body to support activities at the country level. These are discussed in turn below.

Financial commitments. Regional agencies often lack adequate financing to support their work. In particular, financial sustainability remains a concern for the regional NHA networks. Networks have typically been supported by donors, because countries have been unable to contribute to the financial costs the networks require. For example, with respect to

the Euro-Asia network, member countries themselves (with the exception of the Russian Federation and possibly others) have few resources to support the network, given their limited domestic budgets. This challenge calls into question the sustainability of the network in the absence of sustained donor funding.

An alternative is to pursue innovative financing solutions to support regional NHA activities. For example, networks can incorporate NHA activities into disease-specific studies or into loans and grants related to health system strengthening. This approach would further align NHA activities with policy making and broader reform issues. Another approach is piggybacking on NHA-related discussions with other forums where similar people are likely to be present (for example, the International Health Economics Association meeting typically follows the national health accounts meeting that takes place every two years).

As another example, a large part of APNHAN's funding comes from projects and research grants as well as some government support. APNHAN also receives funds through the Australian Agency for International Development (AusAID), of which a component is explicitly for APNHAN support; this is currently the largest form of support to APNHAN by an external sponsor. In addition, APNHAN secured funding from the Rockefeller Foundation and European Union (in 2001), (PHFI 2010). Other networks, such as REDACS, are supported by the LAC Health Observatory (launched by *Funsalud* and the Carlos Slim Institute for Health). The observatory has an agreement with the Health Metrics Institute, financed by the Bill and Melinda Gates Foundation, to launch a series of research networks (including REDACS) in conjunction with the Harvard School of Public Health. Additional funding for REDACS will be obtained through specific projects currently under development. In this way, funding for REDACS is tied to broader sources of financing that go beyond NHA activities so that the network is not solely reliant on WHO or member country support (Rathe 2010).

Governance and coordination of regional agencies. Regional agencies also require a strong governance structure and coordinating body to manage and govern their activities. Governance may require transferring coordination activities to agency members directly, but that requirement may prove difficult, given members' own responsibilities in their respective countries. For example, in an effort to hand over leadership from donors to countries in the Euro-Asia network, WHO's Regional Office

for Europe initiated and sponsored a series of smaller working group meetings with the most engaged countries. The group has met and discussed specific technical issues and functioned as an organizing committee for the network meetings. Donors have had difficulty transferring responsibilities, however, because countries have limited time and funds to support the networks. Country ownership will become more important as a network strives to move beyond its traditional focus on production to increased demand and use of NHA data among member countries. That expansion will require broadening the network's participants to include policy makers—beyond the technical experts who typically attend the network meetings (Wilkens 2010).

The Future of Regional NHA Networks

Regional activities have proved their value in promoting peer learning and in serving as a repository for knowledge and expertise to generate cost-efficiencies for member countries. However, they also require country ownership and practical plans to support their own financing and governance. Further exploration is needed for countries and international development partners alike to make the best use of regional cooperation.

Note

1. Milena Gajic-Stevanovic, (head, National Health Accounts Office, Institute of Public Health of Serbia), personal interview, August 2, 2011.

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Conclusion

Country experiences presented in this book demonstrate how National Health Accounts (NHA), if translated into relevant policy analyses, can add value to health system design, financing prioritization, and performance monitoring. Countries that have institutionalized NHA have used evidence to reduce the financial burdens borne by households, to increase their total health expenditure for wider health care coverage, and to identify opportunities to improve cost-efficiency in government spending.

In contrast, country experiences also show that a supply-driven model—in which the connections between production and use have been weak—has limited the potential for NHA to detect resource gaps, inequities, and inefficiencies in the health system and thereby inform policy in a sustained manner.

The connection between production and use of NHA can be strengthened through a long-term strategy—developed and owned by the countries and supported by the international community—that addresses bottlenecks and ensures sustainable investments in the entire cycle of the NHA process. For such a strategy to be effective, it will need to include a detailed plan on governance, capacity building, and financing based on a country's unique resource environment and institutional capacity.

In the October 2011 global consultation[1] that marked the culmination of this initiative, country leaders articulated at least three priority actions:

1. Integration of NHA into health sector budgeting planning and expenditure tracking exercises (for example, Medium-Term Expenditure Framework, Public Expenditure Review, and Public Expenditure Tracking Survey);
2. Measuring and monitoring of equity and efficiency in health resource allocation and use—especially in terms of geographic, income, and specially vulnerable groups; and
3. Resource tracking at a subnational level or by priority programs (for example, maternal and child health and reproductive health, human immunodeficiency virus/acquired immune deficiency syndrome, tuberculosis, malaria, and noncommunicable diseases) in a consistent manner.

The strong consensus was that NHA has to be embedded within these major policy initiatives and cannot be done as an isolated exercise.

It is hoped that the country experiences synthesized in this book will encourage countries and international development partners to plan strategically and advance the journey toward NHA institutionalization in the spirit of genuine partnership and mutual responsibility. Routine use of NHA will generate valuable information and an evidence base that responds to increasing national and international demands for transparency and accountability in the use of resources.

A synthesis of the country experiences reveals that NHA are moving into a new era—one in which NHA activities can no longer be addressed in isolation, but will need to be undertaken strategically and sustainably as a critical component in a broader resource tracking effort that will inform policy. NHA can help countries plan and track the progress of health reforms when they are linked to national policy priorities, such as the expansion of health coverage through health insurance schemes. NHA data can serve as an input to key national budgeting and planning tools and processes such as the Medium-Term Expenditure Framework and the Public Expenditure Review.

Moreover, NHA will continue to be an essential tool to track progress toward international policy targets and priorities. Significant international efforts are being launched to improve transparency and accountability in the health sector through more coherent and effective resource

tracking approaches. Following the High-Level Forum on the Health MDGs (Millennium Development Goals) held in Geneva in January 2004, which identified the improvement of information on resource flows as a priority for action, the Global Health Resource Tracking Working Group conducted a series of background analyses. These resulted in a call for more coherent long-term support to improve government budgetary and financial systems in the developing world, including the integration of NHA into policy making (High-Level Forum on the Health MDGs 2004; Global Health Resource Tracking Working Group 2007). More recently, the Commission on Information and Accountability for Women's and Children's Health developed a framework for improved global reporting, oversight, and accountability on women's and children's health (WHO 2011).

To be effective, the cycle of NHA activities will need to be firmly embedded within the national process for evidence-based policy and owned by all the stakeholders in the system. This will require a fundamental shift in the nature of the partnership among all the stakeholders. This partnership begins with national and international leaders committing to mutual accountability in the use of national and international resources for the goal of improving the performance of health systems and the health outcomes of the populations they serve. The journey toward that goal will involve many stakeholders. National governments, citizens and civil societies, development partners, and technical agencies all have a stake in ensuring a responsible use of resources. Collectively, these actors can ensure an effective use of NHA to improve the performance of a country's health system and, ultimately, to safeguard the better health and well-being of its people.

Note

1. See the global meeting on the institutionalization of NHA organized jointly by the World Bank and Organisation for Economic Co-operation and Development, "Where Is the Money and What Are We Going to Do with It? Creating an Evidence Base for Better Health Financing and Accountability," Paris, October 6–7, 2011.

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PART II

Case Studies

CASE STUDY 1

Afghanistan: Informing Health Sector Decision Making and Improving Allocative Efficiency

Institutionalization from the First Round of National Health Accounts

Key Points

- Demands for greater transparency and accountability in health resource tracking have led to the first round of national health accounts (NHA) in Afghanistan.
- The results provide an evidence base that shows a lack of financial risk protection for households.
- The process of producing the first round of NHA and the institutionalization process were conducted simultaneously.
- Afghanistan has already disseminated the results broadly for use by stakeholders and policy makers.

Limited access to primary health care, together with high maternal mortality rates, has prompted Afghanistan to examine its investments in health. National Health Accounts (NHA) have helped Afghanistan analyze how resources are allocated and have indicated a need for greater financial risk protection for Afghanistan's population. NHA also have

the potential to improve transparency in Afghanistan's health sector. Completing its first round of NHAs in April 2011 while embarking on the institutionalization process, Afghanistan has started to use health resource tracking to inform decision making for better health outcomes. This process has been fostered by strong government buy-in, multistakeholder support, and broad dissemination.

NHA Institutionalization in Afghanistan

The first NHA in Afghanistan, for the years 2008–09, were conducted by a core team comprising two members from the Health Economics and Financing Directorate of the Ministry of Public Health (MoPH), with technical support from the U.S. Agency for International Development's Health Systems 20/20 Project. The impetus for NHA came from earlier work that demonstrated the need for tracking resources in the health sector (World Bank 2010). The desire to conduct the initial NHA exercise and institutionalize the process was discussed at great length in Afghanistan's National Strategy on Health Care Financing and Sustainability 2008–13. This country-driven process brought on board different government actors at both the ministry and the directorate levels to help create an evidence base for decision making (Afghanistan MoPH 2011).

A process of institutionalization of NHA was initiated simultaneously with the first NHA exercise. In this process, a great deal of emphasis was placed on understanding the NHA methodology, developing mechanisms to ease data collection, and producing a long-term work plan. The country places great importance on capacity building. For example, a two-person team is transferring and institutionalizing its knowledge by training other colleagues and local staff members through workshops and presentations on NHA methodologies and statistical methods. The team is also developing a manual with a glossary of terms, a list of data sources used, and a compilation of collection and estimation methods for future reference.

The country intends for its NHA to be used by a wide variety of stakeholders, including government, civil society, nongovernmental organizations (NGOs), donors, and academics. To enrich discussion and to advocate that the Parliamentary Committee and the Ministry of Finance (MOF) increase funding to the health sector, Afghanistan has already established working groups, including the Consultative Group on Health and Nutrition, the Afghanistan Health Sector Donor Group,

the Health Sector National Technical Coordination Committee, and an Interministerial Coordination Committee for Health and Nutrition.

NHA results were disseminated nationally through a "launching" ceremony in April 2011. Invitees included senior officials from other ministries (including the MOF), representatives from the Central Statistics Organization and from NGOs, hospital directors, and members of the donor community. The event received significant coverage on local television and radio stations and has motivated a significant amount of discussion. The NHA report itself is in the process of being finalized. Once completed, it will be printed and published on the government's NHA website and translated into local languages. The data are already being communicated through e-mail to various ministries (Afghanistan MoPH 2011).

As Afghanistan moves forward with NHA production and analysis, it will be interesting to observe how key areas are developed to better inform decision making, including (a) the use of other inputs to inform health sector decision making, (b) the optimization of NHAs with other data instruments such as the Public Expenditure Review and the Medium-Term Expenditure Framework, and (c) the enhancement of these areas through translation in ways that "reach" policy makers.

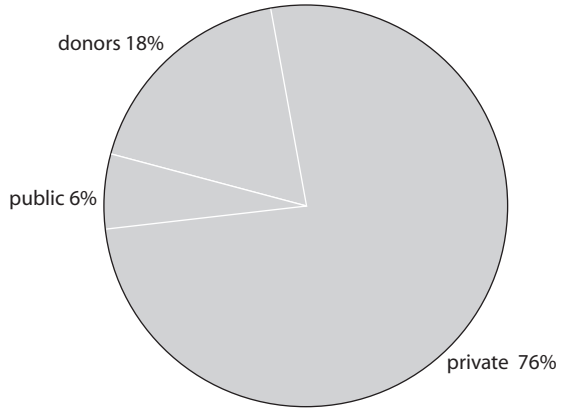
Early Insights from NHA Data

Although it is still too early to see tangible policy effects, an evidence base is being created in Afghanistan that can provide input for decision making. Early insights from the production of NHAs have stimulated debates on the following issues:

- ***Greater public financing of health.*** The government of Afghanistan pays only 6 percent of total health expenditures (figure CS1.1). This small percentage has highlighted the need for greater public resource allocation to the health sector and for an investigation of different strategies to raise domestic revenue, including corrective taxes or user fees (Afghanistan MoPH 2011).

- ***Financial risk protection.*** Approximately 76 percent of total health expenditures are borne by households, 18 percent by donors, and only 6 percent by government (figure CS1.1).[1] These data illustrate the vulnerability of households to impoverishment because of catastrophic health expenditures. As a result, policy makers have called for a review

Figure CS1.1 Financing Sources as a Proportion of Total Health Expenditures, 2008–09



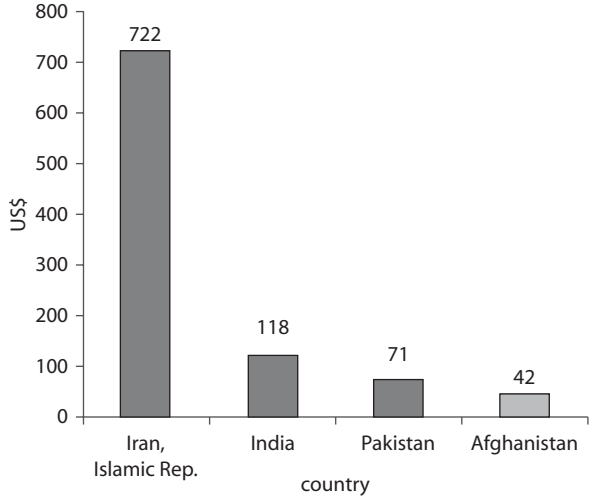
Source: Afghanistan MoPH 2011.
Note: Private expenditures include funds from households, nonprofit institutions serving households, and private enterprises. In Afghanistan, 99.7 percent of private expenditures are from households.

of existing financing mechanisms and are currently exploring alternative financing mechanisms to alleviate the burden on households, looking at both the feasibility of insurance and an increase in government allocations to health (Afghanistan MoPH 2011; Taylor 2011).

- ***Rational use of drugs.*** The majority of household health expenditures are for the purchase of drugs. This finding has resulted in calls for a policy on the rational use of drugs to limit overprescribing by physicians and overconsumption by consumers who are known to ask private pharmacies to prescribe drugs. In addition, health education campaigns to promote behavior change and the rational use of drugs are being considered. The government also seeks to strengthen its drug procurement policy to limit stock shortfalls and improve the quality of drugs (Afghanistan MoPH 2011).

- ***Regional benchmarking.*** Data have brought to light how Afghanistan compares with its regional neighbors, in terms of both the levels and the trends of its health spending. Afghanistan currently spends 10 percent of its gross domestic product on health, which is higher than the health spending of its neighbor countries (and even higher than the

Figure CS1.2 Total Health Expenditures per Capita, 2008–09



Source: Afghanistan MoPH 2011.

Organisation for Economic Co-operation and Development average of 9 percent). But in per capita terms, Afghanistan spends only US$42 per capita, far less than its neighbors such as the Islamic Republic of Iran (US$722 per capita), India (US$118 per capita), and Pakistan (US$71 per capita), as shown in figure CS1.2 (Afghanistan MoPH 2011).

- ***Greater accountability.*** Health resource tracking data have the potential to ensure greater accountability of policy makers to their constituents—for example, as a means to expose corruption in the health system and, hence, improve public trust in the administration (Taylor 2011).

Through sustained NHA production, and as the data and the availability of capacity in the country develop, the evidence base will grow, thereby enabling increasingly sophisticated insights to assist policy makers.

Note

1. Moreover, donors alone contribute 75 percent of total public health spending, illustrating the degree of public financing's dependence on donor aid in the health sector (Afghanistan MoPH 2011).

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CASE STUDY 2

Burkina Faso: Addressing Inequities in Resource Allocation and Improving Financial Access to Care

Strengthening Capacity Building to Use Data to Inform Policy

Key Points

- National Health Accounts (NHA) in Burkina Faso have highlighted the need to make resource allocation across regions and health programs more equitable. Data have also highlighted the need for improvements in financial access to care.
- NHA have the potential to improve transparency and accountability if dissemination mechanisms are strengthened. This development would also encourage feedback and transparency to improve NHA production and analysis, lend credibility to the numbers, and enhance the quality of data produced.
- Burkina Faso faces several challenges in capacity building. Greater resources need to be mobilized for capacity building, both within the Ministry of Health and in other ministries and the private sector. The central government's increased commitment to effective health resource tracking and ownership of that process can help strengthen this area.

The documents needed for writing this case study were translated from French into English by Damini Bansal of the World Bank.

Burkina Faso has addressed inequities in resource allocation across regions and health programs, as well as inequities in financial access to care, using insights from National Health Accounts (NHA) data. In strengthening the link between production and use of data, Burkina Faso seeks to make further investments in capacity building and dissemination and to further strengthen government commitment to the country's health resource tracking efforts.

NHA Institutionalization in Burkina Faso

The institutional home of NHA in Burkina Faso is the Division of Information and Health Statistics within the Ministry of Health (MOH). NHA were initially produced externally by a consulting agency. Now, however, production has moved in-house where local staff members prepare NHA and remain in contact with the World Health Organization (WHO) to share results and ensure that standardized procedures are used. The International Development Association will continue to finance NHA and ensure support for the Ministry of Finance.

NHA are part of a broad government mandate to identify ways to mobilize financial resources for the health sector to implement the National Health Development Plan (Plan National de Développement Sanitaire, or PNDS) (2000–10), ensure equity in geographic access to care, and provide equity in financial access to care across income groups (Zida, Bertone, and Lorenzetti 2010). The MOH was chosen to house the NHA because (a) it frequently uses NHA data in formulating its policies and strategies and allocating resources, (b) it has the ability to readily collect the data needed for NHA production, and (c) many believe it is able to better facilitate the link between production and use of data. As a result of having the institutional home of NHA within the MOH, however, the frequency of data collection is not always respected, and some data are not collected. Furthermore, human resource capacity is limited (particularly in terms of statistics) within the MOH.[1] Moreover, NHA conducted by the MOH are not harmonized yet with the NHA subaccounts for the human immunodeficiency virus and acquired immune deficiency syndrome (HIV/AIDS). Finally, the private sector is also not yet included in the NHA data, although training is underway to rectify this exclusion in the future.

NHA are produced in conjunction with a multidisciplinary technical team and a steering committee (SC) chaired by the secretary general (SG) of the MOH. The technical team consists of 12 members with

expertise in areas related to NHA production. The team is responsible for collecting and assessing data quality, producing the NHA tables and matrixes, identifying key health financing trends, and making strategic recommendations according to the results. It includes six officers from the Directorate General for Information and Health Statistics (including economists, statistical engineers, doctors, and administrators): an economist from the Directorate of Studies and Planning, a physician from the Directorate General of Health, the head of finance and accounting from the Directorate of Administration and Finance, a representative from the National Institute of Statistics and Demography, a representative from the Unit for Training and Research in Economics and Management, and the technical manager responsible for developing subaccounts for HIV/AIDS.[2]

The SC reviews the technical team's recommendations, which are ultimately forwarded to the authorities in the MOH and to key development partners for use in policy making. The SC comprises the following members: the SG of the MOH (who serves as president of the SC), the Director General of Information and Health Statistics in the MOH, the Director of Administration and Finance in the MOH, the Director General of Health Statistics, the head of the NHA technical team, the technical adviser to the MOH, the director general responsible for the supervision of public hospitals and the private health sector or his or her representative, the Director General of Health or his or her representative, the Director General of Budget or his or her representative, the Director of Studies and Planning in the MOH, the Director General of Cooperation in the Ministry of Economy and Finance or his or her representative, the Coordinator of Support to Health Development, the Permanent Secretary of the National Committee to Fight against HIV/AIDS or his or her representative, and a representative of WHO in Burkina Faso.[3]

Within government, capacity building needs to be strengthened to better use data to inform policy. Currently, a two-person NHA team is responsible for production; it consists of a team leader and an assistant. At the central level, only two people are responsible for data compilation and analysis, thus making the process achieved fragile. The team leader has strong technical expertise. He has worked in conjunction with the World Bank and with the U.S. Agency for International Development's Health Systems 20/20 Project. There is a clear shortage of personnel and a need to scale up the NHA team, particularly in the event of staff attrition. A loss of either team member could mean a loss in institutional

memory and of the capacity to continue with NHA production. As a result, the MOH has pursued training (of MOH staff members and those of other entities) in the public sector to build capacity, but ongoing efforts are needed. There have been plans to integrate and build capacity within the private sector, but no action has occurred yet.[4]

The primary user of NHA is the MOH, which is responsible for producing the national health strategy, monitoring budget allocations across regions, and monitoring household spending on health (as will be discussed later). To date, development partners, research organizations, and civil society members have used NHA as part of one-off studies; the need exists for NHA to be routinely used by and made available to these and other entities.[5] For example, Amnesty International used the results of the 2008 NHA reproductive health subaccounts for its campaign to raise awareness about maternal mortality and women's rights to health care. As for Burkina Faso's high maternal mortality rate (484 deaths per 100,000 live births in 2000), only 6 percent of the total health budget was allocated to reproductive health services, and only 0.02 percent of the total health budget was allocated to maternal health and family planning (WHO 2006; Zida, Bertone, and Lorenzetti 2010). Studies such as these highlight the discrepancies between health spending and need and make it an increasing priority to use data such as NHA to inform decision making. For the development of community-based health insurance in Burkina Faso, civil society organizations cite, as an example of the financial burden on poor populations, the high household out-of-pocket (OOP) spending, which is around 39 percent according to 2009 NHA data.

In terms of dissemination, data are circulated in hard and digital versions of the final NHA reports, as well as through workshops and training forums. Results are also posted online.[6] Data remain very technical and are not translated into a simple political language that everyone can understand.

Currently, Burkina Faso uses NHA data in conjunction with a variety of other data sources. For example, data on government health expenditures come from the Integrated Expenditures System, which is also used for the Medium-Term Expenditure Framework (MTEF). Household health expenditures are estimated from household surveys conducted by the National Institute of Statistics and Demography. Public health facilities' expenditure data are collected annually from the final balance sheet of the PNDS. Finally, additional data are collected from private providers, including pharmacies and insurance entities. All collected data are entered

in a single database that is used to produce NHA tables. Other data instruments such as the Marginal Budgeting for Bottlenecks and the MTEF are tools for projection that use health-financing indicators from NHA as a baseline.[7]

Using Insights from NHA to Inform Policy

The following insights were used to inform policy:

- ***Resource allocation across regions.*** The 2005 NHA data revealed major geographic inequities in health spending: poorer regions received less of the total health expenditure (THE) than more affluent areas. For example, Boucle du Mouhoun and Nord, two of the poorest regions within Burkina Faso, had poverty incidences of 60 percent and 69 percent, respectively, and received a combined total of 11 percent of all health care spending. In contrast, wealthier areas such as the Centre region received 29 percent of health care spending despite having only a 22 percent incidence of poverty. This finding was particularly stark in light of the fact that Boucle du Mouhoun and Nord are home to 20 percent of the country's total population, whereas Centre is home to only 9 percent (Zida, Bertone, and Lorenzetti 2010).

  This discrepancy in health spending was due to the differing abilities of the regions to invest in infrastructure and make capital investments. Poorer regions simply lacked additional resources to devote to health. This finding prompted the central government to construct and develop new health facilities, which increased the number of health facilities nationwide by 62 percent between 2001 and 2009. The results also prompted central government and development agencies to reallocate resources to poorer regions (Zida, Bertone, and Lorenzetti 2010).

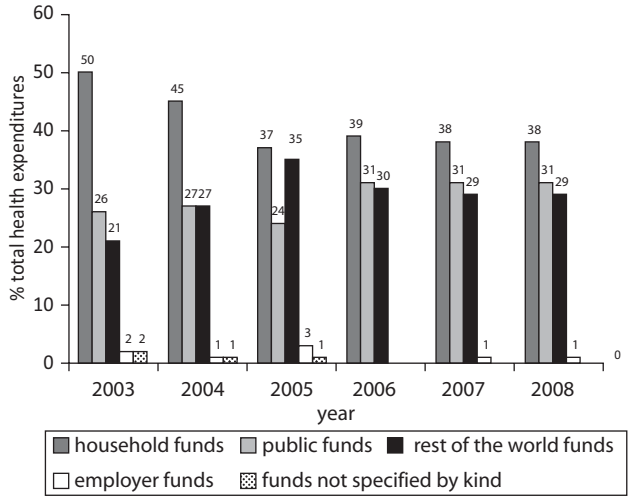
- ***Resource allocation across health programs.*** Effective resource tracking data have also been used to improve equity in resource allocation across health programs. For example, the 2005 NHA data showed that 46 percent of the total health budget was spent on medication and other medical goods for outpatients, whereas only 10 percent was spent on preventive services and health promotion. This finding prompted the government to offer free health-promotion and preventive services to ensure that individuals continue to use primary health care services. Following this program, the 2006 NHA results showed that spending on medical goods for outpatients declined to 31 percent,

while spending on preventive health increased to 26 percent (Zida, Bertone, and Lorenzetti 2010).

In addition, the NHA results showed insufficient district health spending, with little involvement in the health sector at the district level. This finding prompted the central government to further decentralize responsibilities for health—for example, by transferring money and staff members from the central to district governments (Zida, Bertone, and Lorenzetti 2010).

- ***Financial access to care.*** Health resource tracking data have revealed that households are the largest contributors to health spending. In 2003, for example, households accounted for 50 percent of THE, with 92 percent of this amount attributable to households' OOP payments for health services at the point of service (figure CS2.1). Highlighting these data, development partners have encouraged the government to respond. The government has since taken action by subsidizing specific medical services to alleviate the financial burden on households (for example, natural deliveries and emergency obstetric

Figure CS2.1 Composition of Total Health Expenditures, 2003–08



Source: Zida, Bertone, and Lorenzetti 2010.
Note: This comparison of 2003 and 2008 NHA figures should be viewed with caution because the methodology used to calculate NHA data was not the same every year. Methodologically rigorous comparisons can be made between the data for 2005 and 2008—the period during which the total health expenditure increased by more than 26 percent.

care, including cesarean sections, are now 80 percent subsidized). This policy has culminated in a reduction of household OOP payments as a proportion of THE to 38 percent in 2008 (Zida, Bertone, and Lorenzetti 2010).

- ***Policy and planning.*** The government also uses the data to monitor the implementation of the Burkina Abuja Declaration, which suggests that countries allocate 15 percent of their budgetary resources to finance health care. In addition, the government also uses the data to assess the cost of implementing the National Plan for Health Development 2011–20.

Thus, data and resource tracking have helped provide answers to the following key policy questions:

- At the national level:
  - How can Burkina Faso ensure equitable resource allocation across regions and across health programs?
  - How can Burkina Faso improve financial access to care and reduce the health-financing burden borne by households?
- At the international level:
  - How does Burkina Faso perform relative to other countries in the region in terms of health spending levels and trends?

Currently, regional organizations such as the West African Economic and Monetary Union are harmonizing NHA data and methodologies across eight West African countries to facilitate regional comparisons.

Lessons Learned

The following lessons were learned:

- *Home of data production and oversight*. The in-house production of NHA helps facilitate local ownership and retain production capacity in the country.
- *Central-level ownership and commitment*. Ownership by the central government to support and push NHA forward can be strengthened. Although there is strong buy-in from the Division of Information and Health Statistics, ownership needs to be strengthened within the ministry more broadly.

- *Capacity building.* The difficulties of capacity building are worth noting, particularly in a context of limited financial and human resources. Greater resources need to be mobilized for capacity building, both within the MOH and among other ministries and the private sector. The central government's increased commitment to effective health resource tracking and ownership of that process can help strengthen this area.
- *Dissemination*. Dissemination of NHA findings can be strengthened and expanded to include a broader audience, such as civil society. For example, although NHA data were produced in 2009, results were not widely circulated. Improved dissemination includes translating the data so that they are readily understood by a wide array of audiences.
- *Accountability and transparency.* Data such as NHA have the potential to improve transparency and accountability to government and civil society, if dissemination mechanisms are strengthened. This development would encourage feedback and transparency to improve NHA production and analysis, lend credibility to the numbers, and enhance the quality of data produced.

Burkina Faso serves as an example where, in a resource-poor setting, production capabilities have been strengthened in-house (that is, within the MOH). However, ongoing efforts are needed to support capacity building, and there is room to further improve data dissemination and the central government's commitment to ensure continued use of insights from the data to inform policy. Continued investments in these areas will create a stronger evidence base on which to generate additional insights to inform policy.

Notes

1–3. Boureima Ouedraogo (director general, Information and Health Statistics, Ministry of Health, Burkina Faso) and Some Tegwouli (director, Studies and Planning, Ministry of Health, Burkina Faso), written communications, August 25, 2011.

4. Ousmane Diadie Haidara (health specialist, World Bank), personal interview, June 14, 2011.

5. Ousmane Diadie Haidara (health specialist, World Bank), personal interview, June 14, 2011.

6. Boureima Ouedraogo (director general, Information and Health Statistics, Ministry of Health, Burkina Faso) and Some Tegwouli (director, Studies

and Planning, Ministry of Health, Burkina Faso), written communications, August 25, 2011.

7. Boureima Ouedraogo (director general, Information and Health Statistics, Ministry of Health, Burkina Faso) and Some Tegwouli (director, Studies and Planning, Ministry of Health, Burkina Faso), written communications, August 25, 2011.

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CASE STUDY 3

Georgia: Addressing Inequities in Financial Access to Care and Improving Health Care Programs

Building Institutional Capacity and an Enabling Environment for National Health Accounts

Key Points

- National Health Accounts (NHA) data have highlighted the need for greater financial risk protection among households, with a little more than one-third of the population currently having any type of insurance. Households' high out-of-pocket spending on pharmaceuticals has also contributed to households' health financing burden.
- Over time, knowledge of NHA production has been transferred from international consultants to local staff members on the ground, and the production of NHA has been formalized by a decree, thereby ensuring a base of local, institutionalized knowledge within the NHA team. Given the team's limited human resource capacity, however, there are efforts to scale up the number of team members, ensuring a continuous transfer of local knowledge going forward. The formal involvement of entities from multiple sectors ensures the long-term buy-in of these actors in the NHA production process and can facilitate production through the collection of data inputs.

- NHA are used by a wide array of stakeholders, including government (within and outside the Ministry of Health), private insurance companies, academics, and researchers. Broadening dissemination has built confidence in the data NHA provide.

Georgia has addressed inequities in financial access to care and has sought to improve publicly funded health care programs. It has used National Health Accounts (NHA) as an evidence base to both highlight these issues and identify potential solutions. NHA data in Georgia are produced using local expertise transferred over time from international experts, and standardized tools have facilitated data production. Use of the data has been made possible through broad dissemination and links with other data sources and instruments. Going forward, Georgia seeks to address existing human resource shortages through recruiting efforts to ensure a solid base of local, institutionalized knowledge of NHA.

NHA Institutionalization in Georgia

The development of NHA in Georgia began in 2003 with technical and financial support from various bilateral agencies (the U.S. Agency for International Development [USAID] through Abt Associates) and multilateral agencies such as the World Bank and the World Health Organization (WHO). The work was contracted out to the Curatio International Foundation, a Georgia-based nongovernmental organization (NGO) dedicated to health accounting, financing, and management reform (Goginashvili and Turdziladze 2009). Over time, the responsibility for NHA production has moved internally, while development partners such as WHO continue to provide high-level technical guidance and donors such as the World Bank provide financial support.[1]

As of January 18, 2006, the government of Georgia issued Decree 11, "On Institutionalizing National Health Accounts in Georgia," requiring the annual production of NHA data and mandating all entities in the health sector to provide the data inputs for production. This decree served as the first legislative initiative stipulating the aims, objectives, timeframe, and parties to be involved. NHA were legally established under the umbrella of the National Institute of Health and Social Affairs (NIHSA), the think tank of the Ministry of Labour, Health and Social Affairs (MoLHSA). The technical composition of the NHA team, as well

as the hiring process of the team, was supported and closely monitored by the World Bank. The Bank also overhauled the NHA department—equipping it to modern standards—and financed various capacity-building efforts. In 2006, the decision was made to abolish the NIHSA and move the NHA team under the MoLHSA, thereby preserving its main functions but apparently causing it to lose staff members as certain members were promoted to managerial-level positions.

Currently, NHA remain under the MoLHSA. Production is led by a two-person technical team comprising both an economist and a public health specialist. Before 2007, a steering committee (SC)[2] was in place that comprised representatives from across government, including the Ministry of Finance (MOF) and the Ministry of Economic Development. The SC oversaw the production process and was required by government decree to regularly provide data inputs to NHA production. Members of the SC could recommend specific analyses (for example, health subaccounts or specific reviews of household health spending[3] [Goginashvili and Turdziladze 2009]). In this way, there was regular feedback from the SC to the NHA technical team. This feedback allowed for regular quality checks of the data, thereby adding reliability to the numbers. The SC has been defunct since 2007, and the production team now conducts its tasks in conjunction with MoLHSA authorities.

Local production capacity building over time has been pivotal to the routine production of NHA data. Initially, international consultants from WHO helped (a) develop standardized production tools, (b) apply standardized methodologies, and (c) ensure uniform reporting of data outputs through special statistical forms based on the Organisation for Economic Co-operation and Development's System of Health Accounts. For example, in 2005, a special data management tool in Microsoft Excel was developed by the NHA production team to ease the production of NHA tables and matrixes. NHA have since been integrated into the health information system, allowing for easy transfer of data inputs into NHA production (Goginashvili and Turdziladze 2009). In addition, Georgia is currently strengthening its human resource capacity on the production side, because it aims to add two or three new members to the technical team to facilitate production.[4] Finally, the regional Euro-Asia NHA Network for the Commonwealth of Independent States serves as another source of capacity building. It presents a forum in which policy makers can share results and discuss concerns on the production and user sides (World Bank 2008). In all, these factors have allowed for institutional knowledge to be developed and strengthened locally.

Georgia places a strong emphasis on dissemination and information sharing, ensuring that data can be used by a broad array of audiences. Whereas previously there was less access to and, therefore, less confidence in NHA results, broadening dissemination has built confidence in NHA numbers. NHA data are displayed on the websites of the MoLHSA and WHO. They are also made available to universities for academic purposes. Key summary statistics (for example, health expenditures as related to gross domestic product) are picked up by the media and displayed in newspapers and on television. These data have been used to inform current debates on health reform.[5] The Ministry of Health and its agencies, the MOF, and other public institutions use NHA data broadly. Outside of government, insurance companies use the data in their management of premiums and contracts with providers (World Bank 2008).

Georgia employs a variety of data sources and instruments that are used in conjunction with NHA. For example, the Georgia Health Utilization and Expenditure Survey (HUES) is used with NHA data to estimate household out-of-pocket payments and private health expenditures. The first HUES was conducted in 2007 and the second in 2010. Both surveys were (a) implemented by the State Department of Statistics of Georgia, (b) supported by the World Bank, and (c) implemented by the Georgia Health and Social Project Implementation Center. NHA data have also been used to inform the 2006–10 Medium-Term Expenditure Framework, using 2001–03 NHA estimates. Currently, Georgia is investing in a robust Health Management Information System with World Bank and USAID support, which will directly link health use to financing data. It will allow for countrywide data inputs to be directly translated in ways that can inform policy. This system will ease data production costs and provide for a seamless flow of information from the district to the central level that will be accessible nationally.[6] As Georgia continues with NHA production and analysis, it will be interesting to observe how these key areas develop to better inform decision making.

Using Insights from NHA to Inform Policy in Georgia

The following insights were used to inform policy:

- *Financial access to care.* The issue of limited financial access to care was brought to light by routine NHA analysis. Data highlighted that Georgia primarily relies on private sources of financing, which ranging

between 71 percent and 78 percent of total health expenditures annually between 2001 and 2007 (table CS3.1). In per capita terms, private health spending increased from US$46 to US$127 (GEL 82 to GEL 224), more than doubling over this period and demonstrating the need for greater financial risk protection, particularly for the poorest populations.

Georgia has chosen to follow its own path toward improving financial risk protection, with the state assuming the responsibility of purchasing coverage for essential health services for the poor population through private insurance companies, under the State Health Program for Medical Assistance to the Poor (MAP). This program covers about 950,000 individuals living below the poverty line, as well as an additional 200,000 public servants (teachers and law enforcement and military personnel). MAP provides rather comprehensive coverage without copayments. Therefore, beneficiaries must pay out-of-pocket only for items that are not covered, such as pharmaceuticals (although these are often significant expenses). In addition, about 250,000 individuals have private (typically corporate) insurance. Therefore, only about one-third of Georgia's population holds any type of insurance (WHO 2009; World Bank 2010).

Access to affordable medicines is also an issue for the whole population: most outpatient drugs are not covered by the universal benefit package and were only added to the medical insurance program for the poor in 2010, with a ceiling on reimbursement (World Bank 2010).

Table CS3.1 Private Health Expenditures as a Percentage of Total Health Expenditures, by Type of Medical Service, 2001–07

Georgian lari

Medical service type	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Curative services (%)	34	29	29	33	30	29	28
Inpatient curative services (%)	19	16	17	17	16	16	15
Outpatient curative care (%)	15	13	13	13	13	13	13
Additional medical services (%)	7	8	8	8	8	9	9
Medical supplies and medical equipment (%)	31	34	40	40	39	34	34
Total private expenditures (%)	72	71	77	78	77	72	71
Total health expenditures (%)	100	100	100	100	100	100	100
Total health expenditures (GEL, thousands) (%)	521.6	650.7	724.8	835.9	998.3	1,159.6	1,386.6

Sources: Georgia National Health Accounts; WHO 2009.

These data are further highlighted in the Georgia Health System Performance Assessment Report (WHO 2009). The MoLHSA compiled the report, with technical and financial support from the WHO Regional Office for Europe and the World Bank. The assessment was carried out between July 2007 and September 2009 and contributed to government efforts to strengthen the capacities of the MoLHSA for effective stewardship of the health system.

- *Budgeting, monitoring, and evaluation*. Findings from health resource tracking data have also been used as a budgeting tool for state health care programs. Specifically, the data have informed discussions on how to price health care services for state health care programs and how to calculate premiums for private insurance companies and actuaries.

  In addition, the data have been used as a monitoring and evaluation (M&E) tool for state health care programs. For example, data from NHA were used to identify the number of state health care programs with adequate support for M&E as a proportion of total government health expenditures (table CS3.2). This practice is relevant because, before 2007, state health care programs did not include any indicators on M&E to assess their effectiveness. With help from a local consultant, the MoLHSA was able to establish indicators for these state health care programs. As a result, in 2007 alone, 4 of 10 state health care programs (accounting for 68 percent of total public funds available to health care) had adequate M&E frameworks. In 2008, however, the MoLHSA required that only one state program include M&E indicators. But this requirement will be changed from 2012 onward because all state programs are now required to include such indicators[7] (Goginashvili and Turdziladze 2009).

Table CS3.2 Use of M&E Frameworks and Indicators in State Health Care Programs, 2005–08

Usage information	*2005*	*2006*	*2007*	*2008*
Number of state health programs	8	13	10	22
Number of state health programs that include M&E indicators	0	0	4	1
Number of M&E indicators integrated in the HIS	0	0	84	9
Programs with adequate M&E framework (% of total government expenditures)	0	0	68	1

Sources: Health Policy Division, Ministry of Labour, Health and Social Affairs, Georgia; WHO 2009.
Note: HIS = Health Information System; M&E = monitoring and evaluation.

- *Disease-specific programs.* NHA provide critical information for all development partners (including international development partners), highlighting the additional resources needed to meet Millennium Development Goals. Further, subaccounts data have been used to convince decision makers to scale up funding for anti-retroviral drugs (ARVs), tuberculosis (TB) treatment, and reproductive health by showing gaps in domestic spending. With respect to the human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS), policy makers used NHA data to prepare the 2007–10 United Nations General Assembly Special Session Report that covered prevention and treatment costs. These results were then used to develop the National HIV/AIDS strategy; as of 2008, all HIV/AIDS patients receive ARV treatment financed by the government.

  NHA data on subaccounts for reproductive health were also shared with the Reproductive Health Working Group, the Parliamentary Committee for Health and Social Affairs, the MoLHSA, and interested local and international NGOs. This dissemination resulted in the development of the country's national strategy on reproductive health.

  Finally, the MoLHSA and development partners used data on TB subaccounts in evaluating the National Strategy Plan for TB and in assessing the current level of TB-related expenditures in Georgia. As a result, as of 2009, the government covers all expenses for treatment, supervision, and drugs for patients with TB.

Data and resource tracking have thus helped provide answers to the following key policy questions:

- At the national level:
  - How can Georgia improve financial access to care and reduce the health financing burden borne by households?
  - How can Georgia expand health insurance coverage?
  - How can Georgia determine the prices and premiums for health care services?
  - How can Georgia use data as a monitoring tool for state health care programs?
  - How can Georgia monitor and strengthen disease-specific programs?
- At the international level:
  - How does Georgia compare with other countries on health spending levels and trends?

Lessons Learned

The following lessons were learned:

- *Home of data production and oversight*. NHA are housed under the MoLHSA. In this way, health resource tracking data have a regular home and insights from the data can develop at the hub of policy making at the highest levels.
- *Technological investments*. Georgia currently uses an automated, Microsoft Excel–based data management tool to facilitate production of NHA tables and matrixes. Data inputs from a variety of sources feed into NHA databases through the current health information system. Currently, there is a move to create a new, countrywide health management information system with USAID support that will seamlessly link health financing and data on usage.
- *Capacity building*. Over time, knowledge has been transferred from international consultants to local staff members on the ground, ensuring a base of local, institutionalized knowledge about the NHA team. Given the team's limited human resource capacity, efforts are under way to scale up the number of team members by fall 2011. Current staff members will train and coach new members.
- *Enabling environment*. Mandating NHA activities and the defining roles and responsibilities of multiple stakeholders through a legal framework can facilitate the activities and increase the sustainability of NHA.

The reliance on donor funds for the production of NHA data and the financing of local staff members on the production team raises issues of sustainability and requires that Georgia seek alternative sources of funding once current donor funds end. Further, in the event of staff member turnover, Georgia may experience production delays because of its small, two-person team responsible for production and because of the lack of adequate capacity building. Despite these shortcomings, the country recognizes that NHA have had the indirect effect of enhancing accountability and promoting transparency in the use of data to inform decision making in Georgia.

Notes

1. Ketevan Goginashvili (chief specialist, Health Policy Division of the Health Care Department, Ministry of Labour, Health and Social Affairs, Georgia), personal interview, July 20, 2011.

2. Before 2007, a multisectoral working group was responsible for review of the NHA classification scheme, as well as the production and data collection standards. It comprised representatives from the following agencies: the MoLHSA, the NIHSA, the Public Health Department, the National Center for Disease Control and Medical Statistics, the State United Social Insurance Fund, the Ministry of Economic Development, the MOF, the State Department of Statistics, the Insurance State Supervision Board, and the Insurance Association.
3. Ketevan Goginashvili (chief specialist, Health Policy Division of the Health Care Department, Ministry of Labour, Health and Social Affairs, Georgia), personal interview, July 20, 2011.
4. A member of the production team is currently overseeing the Health Management Information Systems Project, so additional staff members are needed to assist with production.

5–7. Ketevan Goginashvili (chief specialist, Health Policy Division of the Health Care Department, Ministry of Labour, Health and Social Affairs, Georgia), personal interview, July 20, 2011.

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CASE STUDY 4

India: Improving Financial Access to Care

Leveraging Domestic Funding and Multisectoral Involvement for National Health Accounts

Key Points

- From their inception, National Health Accounts (NHA) were used as part of a broad government agenda to examine the nexus between health and economic development, with a focus on the poor. NHA have, therefore, had a major influence on policy.
- India finances its own NHA data production, with a dedicated line item in the annual budget and with the buy-in and involvement of entities from multiple sectors. However, the institutional link for translating NHA data into insights for policy making is less clear.
- By addressing production-side bottlenecks, government will improve the use of and demand for data.

India has used data from National Health Accounts (NHA) and related sources to inform parliamentary debates and other high-level discussions on health policy and finance. Ultimately, these data have improved the understanding of financial access to health care in India and have influenced policy. India uses multisectoral involvement to facilitate production

of NHA data, and use of the data to inform policy has been made possible through its links to broader reform efforts. The example of India may provide lessons that could assist other developing countries in implementing NHA and—through both production and use of health resource tracking data—could generate new insights to inform policy.

NHA Institutionalization in India

Health accounts in India started at the state level in Punjab and Karnataka in 1999–2000, followed by Andhra Pradesh in 2004. The first publication of national-level NHA data in 2005 was part of a broader research agenda set by the National Commission on Macroeconomics and Health (NCMH), which the government of India established in 2004 under the Ministry of Health and Family Welfare (MoHFW) and which was co-chaired by the MoHFW and the Ministry of Finance. The commission comprised high-level policy makers and representatives from a variety of entities (including nongovernmental organizations [NGOs], the academic community, and international organizations), with the main technical body comprising a small group of health systems and economics experts. The NCMH was tasked with studying the effect of increased health investments on poverty reduction and economic development and providing the evidence base to formulate a long-term strategy for scaling-up essential health interventions, particularly to benefit the poor (WHO India 2008). The NCMH first commissioned NHA at the national level; thus, from its inception, it was part of a broad government agenda to examine the nexus between health and economic development.

In parallel, an NHA Cell (or Secretariat) was established within the MoHFW and was supported by a grant from the World Health Organization (WHO). The MoHFW was also made the institutional home for NHA, given that the MoHFW was the ministry that was aware of the NHA methodology and identified and initiated the need for the data. This institutional home, under the guidance of a high-level steering committee (SC), enjoyed broad, high-level membership. The SC is chaired by the secretary of the Department of Health and Family Welfare (DoHFW) and includes the secretaries from other departments of the MoHFW in addition to the economic adviser to the MoHFW; senior-level representatives from the MoHFW; and representatives from the Ministry of Statistics and Programme Implementation, the National Sample Survey Office, and others. The SC has about 25 members altogether (India MoHFW 2009). The SC is responsible for providing overall

guidance for the production of NHA data. Technical and methodological issues are discussed by an Expert Group and discussed informally with economists and other experts from time to time. The Expert Group and the informal consultants also suggest ways for securing data inputs for NHA data production. The SC is not involved much in the process of translating the data to inform policy, nor is it routinely connected with policy makers to identify policy priorities.[1] By finding ways to bridge this gap between data and policy makers, the government could improve the use of data for decision making.

Authorized by the SC, the NHA Cell estimated NHA figures for the first round in 2001–02. The findings were published in 2006—the year in which the NCMH produced NHA estimates with a greater level of detail. The two estimates were generally consistent with each other. Subsequently, the NHA Cell conducted a second round of NHA production, and the results were published in 2009 using 2004/05 data. A third round of NHA production is currently underway. To date, subaccounts for the human immunodeficiency virus and tuberculosis have also been produced in the country as parallel research efforts and are not under the aegis of the NHA Cell. Furthermore, the preparation of health accounts has been initiated in six states and is accompanied by training that is geared to facilitate production at this level (World Bank 2008).

NHA production at the national level within the NHA Cell is conducted by a team of two to three full-time researchers and supervised by the economic adviser to the MoHFW. Staff turnover within the NHA Cell (and the MoHFW broadly) has been problematic, and there have been efforts to induct a full-time official (an economist, statistician, or other health professional) to further guide the team's work. Although initially supported financially by donors such as WHO, the NHA Cell is now funded through the domestic budget.[2] International consultants have largely not been used at the state or national level for NHA production.[3] Ongoing efforts to build domestic capacity will ensure continued production and analysis of routine data.

In India, further investments in capacity building would help the preparation of NHA data; no training on a routine basis currently exists. The few formal discussion forums that have been hosted have been poorly attended. Informal discussions are ongoing, however. Within the NHA Cell, for example, routine discussions explore how data can be used as a policy tool to highlight methodological issues and concerns, particularly in the estimation of out-of-pocket (OOP) household expenditures. Furthermore, the NHA Cell interacts and informally collaborates with

other key stakeholders in the health sector on the quality and reliability of data inputs for NHA. These stakeholders include the Ministry of Statistics and Programme Implementation (which includes the Central Statistical Organization and the National Sample Survey Office) and other central ministries such as those governing railways, defense, and communication. From these discussions, data are collected and tend to exhibit relatively high health expenditures. The NHA Cell has also been in communication with the Public Health Foundation of India, which has proposed to collaborate with the MoHFW on future NHA exercises.[4]

Dissemination of NHA data currently includes a workshop organized by the MoHFW to highlight results. Results are also posted on the websites of the MoHFW and WHO (World Bank 2008). However, dissemination remains limited, as a result of the weak ownership of and demand for the data.

Currently, there are several strengths and challenges on the production side that affect the integration of NHA data with other data sources. One strength is the streamlined analysis of data made possible by the skilled production team that can easily take raw data inputs and put them into an NHA-ready format—at the national and state levels. This streamlining is done on a regular basis for public expenditures, according to the budgets of the government of India and the state governments. However, there are several factors contributing to delays. One factor is the receipt of data inputs for NHA production, particularly in terms of surveys to estimate household OOP expenditures. For example, the National Sample Survey Office, which is responsible for estimating household expenditures across all sectors (including health), does not conduct surveys on a regular basis that detail OOP expenditures on health. These data are available only approximately once every 10 years. The first such detailed survey was conducted in 1986–87, followed by one in 1995–96, and the latest in 2004. Another challenge lies in estimating health expenditures incurred by private corporations or firms that tend to be less responsive to government requests for data.[5] Currently, private firms' expenditures are still based on the original NCMH estimates that use data collected from employers in association with industry chambers. In the 2009 NHA report the time lag until the publication of the data has been innovatively addressed through the inclusion of high-level provisional estimates up to 2008–09. These provisional estimates are based on budgeted public expenditures (rather than actual and audited final accounts) and on projected estimates of household and firms' health expenditures[6] (India MoHFW 2009).

By addressing production-side bottlenecks, government will improve the use of and demand for data. Currently, many policy makers are not aware that the health expenditure numbers in published reports come from NHA data,[7] and explicit awareness raising would add value in mobilizing support for NHA activities.. The limited interest at present may be attributed to (a) the lack of capacity to train new NHA staff members on key concepts and methodologies, (b) the highly technical nature and perceived complexity of production and analysis, (c) the challenge of NHA (a lesser-known area in health) competing with other health sector issues that are on the government agenda, and (d) the weak links between NHA and economic policy that do not clarify the effects of health expenditures on economic performance.[8]

Using Insights from NHA to Inform Policy

Insights from the production of NHA data in India have been used to inform key parliamentary debates, resulting in programs to improve financial access to care.

Data from NHA have often been referred to during key debates in Parliament, particularly in answering questions concerning total public health expenditures and private health expenditures. These data have been used to make the case for increasing public health spending and providing greater financial risk protection—especially for the poor. In particular, NHA data have highlighted the need to increase public health spending from its existing low levels in India. A government manifesto (published in 2004) committed to increase public health spending from 1.1 percent of gross domestic product (table CS4.1) to 2–3 percent (Ahuja 2010). Several state governments have also sought to scale up public health spending.

The data also revealed high private spending by households reaching 78.1 percent of total health expenditures, compared to only 19.7 percent

Table CS4.1 Health Expenditure Trends in India
percentage of GDP

Spending category	*2004/05*	*2008/09*
Public health spending	0.96	1.11
Total health spending	4.23	4.13

Source: India National Health Accounts data for 2004/05.
Note: GDP = gross domestic product. 2008/09 data reflect provisional estimates from 2004/05 NHA data.

from the public sector and 2.3 percent from development partners (figure CS4.1). Total private spending includes expenditures by firms, NGOs, and households. Households alone contribute about 71 percent. These findings helped change a perception that government was financing a much larger proportion of health care.

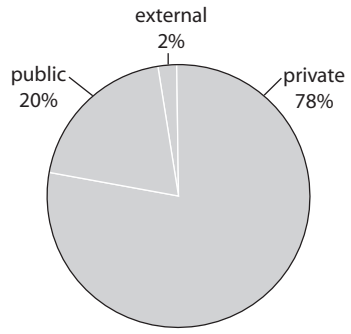
These data, as well as the original NCMH estimates for the first round of NHA production, have prompted the government to establish the National Rural Health Mission (2005–12) with objectives such as the following: increasing public expenditures on health, reducing regional imbalances in health infrastructure, pooling resources, integrating organizational structures in health, and operationalizing community health centers into functional hospitals. The results also led to the creation of a new generation of government-funded health insurance schemes that target the poor, such as the Rashtriya Swasthya Bima Yojna (RSBY) (India MoHFW n.d.).

NHA have, therefore, influenced policy through their ties to the government's broader effort to examine the effects of health spending on economic development. The NCMH had a broad agenda, and, therefore, its findings (including NHA data) have had a significant influence on policy.

Data and resource tracking have thus helped provide answers to the following key policy questions at the national level:

- How can India improve financial access to care, particularly for the poor?
- What are the levels and trends of public expenditures in health?
- What proportion of total health spending do households contribute?

Figure CS4.1 Distribution of Total Health Expenditures, 2004–05



Source: India National Health Accounts data for 2004/05.

Lessons Learned

The following lessons were learned:

- *Public financing.* India uses public funds to produce, analyze, and disseminate data (such as NHA figures) for decision making. Financial support is stipulated in an annual line-item budget for NHA activities. This measure promotes the sustainability of NHA in the long-term and ensures that they are an integral component of using data to improve resource allocation within the public sector.
- *Home of NHA data production and oversight.* NHA are housed within the NHA Cell of the MoHFW. The NHA Cell has strong technical expertise in production and receives overall guidance from a multisectoral SC chaired by the secretary of the DoHFW.
- *Multistakeholder involvement.* The NHA Cell interacts regularly with other entities that supply data inputs needed for NHA to facilitate data collection, analysis, and, finally, dissemination once the report is ready. Informal discussions are also under way with the Public Health Foundation of India to discuss future collaboration in production.

India's example highlights the importance of having competent local staff members on the production side who are funded through domestic budgets to ensure continuity. This case also demonstrates the value of having a team or oversight committee (a) to raise awareness among policy makers and development partners about the importance of health resource tracking data and (b) to generate key insights from the data to guide health policy. It is critical for policy makers to understand the value of health resource tracking data and its links to the broader economy and other policy areas and to move beyond the perception that the activities that are part of the NHA cycle are a mere reporting exercise or requirement. By creating awareness and building demand for data, tools such as NHA can more readily inform policy.

Notes

1. Arvinder Sachdeva (economic adviser, MoHFW, India), personal interview, July 2011.

2–3. Somil Nagpal (health specialist, Health, Nutrition and Population [South Asia], World Bank), personal interview, August 2011; Arvinder Sachdeva (economic adviser, MoHFW, India), personal interview, July 28, 2011.

4–5. Arvinder Sachdeva (economic adviser, MoHFW, India), personal interview, July 2011.

6–7. Somil Nagpal (health specialist, Health Nutrition and Population [South Asia], World Bank), personal interview, August 2011.

8. Arvinder Sachdeva (economic adviser, MoHFW, India), personal interview, July 2011.

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CASE STUDY 5

Jordan: Addressing Pharmaceutical Cost Inflation and Inequities in Financial Access to Care

Building Capacity Using a Multisectoral National Health Accounts Team to Better Link National Health Accounts to Policy

Key Points

- National Health Accounts (NHA) in Jordan have highlighted the need for greater financial risk protection and the need for better cost containment in the pharmaceutical sector.
- Jordan relies on multisectoral involvement for NHA data production, which is also strengthened by a royal decree mandating NHA data production.
- The translation of insights from the data to inform policy and the use of the data remain challenges, but Jordan is working to address these challenges through capacity building (within its multisectoral team and among other health care–related institutions) and through broad dissemination of results.

Jordan is beginning to create an evidence base, using data such as that produced by National Health Accounts (NHA) to address inequities in

financial access to care and cost inflation in the pharmaceutical sector. Since 1998, it has completed five rounds of NHA. The first three rounds were produced with international support from the U.S. Agency for International Development's Health Systems 20/20 Project, and the last two rounds were conducted by local staff. The last two NHA rounds were part of a broad effort to integrate activities in a way that serves decision makers in Jordan, yet the challenge remains that Jordan continues to lack a culture of using data for decision making. The translation of insights from the data to inform policy and the use of the data also remain challenges, but Jordan is working to address these issues through capacity building and data dissemination.

NHA Institutionalization in Jordan

NHA in Jordan currently fall under the High Health Council (HHC), which is headed by the Prime Ministry. The King of Jordan supports the regular production of NHA data, and royal decree mandates (a) routine production of the data, (b) delineation of the workloads and roles of relevant NHA stakeholders, and (c) use of the data to inform budgeting and planning for policy-making purposes.[1] Jordan is currently developing a bylaw that ensures the private sector will provide routine data inputs needed for NHA data production.

Essentially, NHA fit into the broader government agenda to ensure evidence-based policy making and to reduce inequities in financial access to care. The government also contributes to the funding of NHA, along with development agencies (Jordan HHC/General Secretariat 2009).[2]

Within government, there has been a strong emphasis on capacity building to use data to inform policy. For example, the core NHA team comprises about 25 stakeholders (including three individuals responsible for production) from government, the private sector, and the academic community. These organizations include the HHC, the Ministry of Finance, the Ministry of Health (MOH), the Ministry of Higher Education and Scientific Research, the Ministry of Planning and International Cooperation, the Ministry of Social Development, the Royal Medical Services (army), Jordan University Hospital, King Abdullah University Hospital, the Jordan Food and Drug Administration, the Joint Procurement Department, the Department of Statistics, and the Private Hospitals Association. In the future, the Social Security Corporation and the Insurance Commission will also be included. The team received its initial training in Jordan and receives in the Arab Republic of Egypt annual "refresher" training on NHA

data production and use. Weekly discussions among NHA team members are held to highlight the current state of NHA, new approaches, next steps, and key decisions (Jordan HHC/General Secretariat 2009).

Outside the core team, 180 people from health care–related institutions (largely responsible for completing the NHA questionnaires) have been trained (in a three-day workshop) on NHA data production and use. Another 180 people will be trained in the coming years. This collaborative effort allows for an informed dialogue on results and highlights ways data can potentially be used to inform policy (Jordan HHC/General Secretariat 2009).[3]

Within the HHC, a centralized data collection unit for NHA has been established to facilitate the exchange of information and provide a single, central location for quality assurance of the data. A technical committee for NHA data interpretation has also been formed to validate data and to identify relevant health policy issues. As a result, transparency of data production and collection has improved markedly. Whereas, initially, there was a great deal of emphasis on results alone, today there is greater emphasis on the way data are collected, the assumptions used, and the adjustments made in the analysis. There is a move to conduct NHA data production at the regional level to take a deeper, decentralized view of health spending levels and trends (Jordan HHC/General Secretariat 2009).[4]

Finally, Jordan emphasizes data dissemination and information sharing. Hard and digital copies of NHA reports are disseminated broadly to all stakeholders who provide data inputs for NHA data production. This practice fosters transparency in the policy-making process. Data are also posted on the websites of the HHC and distributed to the academic community. In this way, feedback from a variety of stakeholders can be integrated to improve the NHA report. Furthermore, workshops led by the World Bank have improved the core team's dissemination and have helped strengthen the team's capacity to use the data to inform policy.[5]

Using Insights from NHA to Inform Policy

The following insights were used to inform policy:

- *Pharmaceutical policy.* The issue of cost inflation in the pharmaceutical sector was brought to light by routine NHA analysis. Data highlighted that pharmaceuticals alone accounted for 34 percent of total

health expenditures in 2007, or about 3 percent of gross domestic product (GDP), as shown in table CS5.1. Insights from the data have prompted further investigation into the factors underlying high pharmaceutical expenditures and inefficiencies in the pharmaceutical sector, including (a) overprescribing by physicians and pharmacists, which is enabled by the lack of regulation governing the prescribing patterns of providers; (b) consumer behavior of self-medication and inefficient drug use; and (c) pharmaceutical companies' marketing and advertising of drugs, which has promoted overprescribing by physicians and overconsumption by consumers (Jordan HHC/General Secretariat 2009).[6]

As a result, insights from the data have had a tangible effect on pharmaceutical policy in Jordan. The government has revised its rational drug use policy. This revision includes the development of a National Essential Drug List and a National Formulary for Essential Drug List, which is currently used in all public facilities at all levels of care. In addition, a Joint Procurement Department has been established to oversee the procurement of pharmaceuticals across the public sector, in an effort to reduce costs (Jordan HHC/General Secretariat 2009).[7]

The pharmaceutical findings have also prompted analyses by the Jordanian government, in conjunction with Harvard University, on household out-of-pocket (OOP) spending to examine the potentially

Table CS5.1 Pharmaceutical Expenditures, 2001, 2007, and 2009

Expenditure	*2001*	*2007*	*2009*
Total drug expenditures (nominal)	JD 184,630,938	JD 344,899,762	JD 449,395,115
Drug expenditures per capita	JD 35.60	JD 60.30	75.15
Drug expenditures (% of THE)	30.88	34.00	27.91
Drug expenditures (% of GDP)	2.95	3.10	2.66
Distribution of drug expenditures (% of total drug expenditures)			
Public	5.70	11.30	14.14
Private	25.20	22.70	13.77

Sources: Jordan National Health Accounts data for 2007 and 2008–09.
Note: GDP = gross domestic product; THE = total health expenditures. One Jordanian dinar is equivalent to US$1.41.

catastrophic impact of pharmaceutical expenditures. The government has also worked with the Department of Statistics to incorporate questions on OOP drug expenditures for household surveys so that the household-level effect of pharmaceutical spending can be monitored.[8]

- ***Universal health care coverage.*** Insights from health resource tracking data have also been used to inform policy debates about universal health care coverage and ways to improve financial access to care. These discussions, under the HHC, are ongoing. Debates concerning universal health care coverage involve an array of stakeholders, including the former Minister of Health, Dr. Nael Ajlouni, who has been appointed to lead a committee on this process. Preliminary findings suggest that the existing system needs to be made more efficient and less costly by strengthening primary health care in a more financially sustainable manner and by targeting population groups that need specific health care interventions (De and others 2003).[9]

- ***Regional comparisons.*** Policy makers in Jordan use insights from health resource tracking data to make broad comparisons of how Jordan performs relative to its neighboring countries by highlighting health spending levels and trends. For example, the 2007 NHA data highlighted that Jordan's total health expenditure as a percentage of GDP (9.05 percent) was far higher than that of its neighbors of similar levels of economic development, such as the Republic of Yemen (4.5 percent), Egypt (6.1 percent), or the Islamic Republic of Iran (6.8 percent). This finding, in light of Jordan's population growth rate and aging demographic, has been deemed unsustainable and will be monitored in the future (Jordan HHC/General Secretariat 2009).

Data and resource tracking have thus helped provide answers to the following key policy questions:

- At the national level:
  - How can Jordan contain cost inflation in the pharmaceutical sector?
  - How can Jordan improve financial access to care and reduce the health financing burden borne by households? How can Jordan expand health insurance coverage?
- At the international level:
  - How does Jordan compare with its neighboring countries on health spending levels and trends?

Lessons Learned

The following lessons were learned:

- *Public financing.* Jordan uses public funds to produce, analyze, and disseminate data for decision making, such as NHA data. Donor funds are primarily used to upgrade tools and build support for capacity building. This practice promotes the sustainability of NHA in the long term.
- *Home of data production and oversight*. NHA are housed under the HHC, which falls under the Prime Ministry. In this way, use of insights from the data can occur at the hub of policy making. NHA are also supported at the highest level by the King of Jordan.
- *Multistakeholder involvement*. NHA data are analyzed by an interdisciplinary team comprising stakeholders across the public and private sectors, as well as the academic community. This practice allows for greater collaboration and input from a variety of actors in the NHA production process.
- *Capacity building.* Jordan emphasizes continuous training among its core NHA team members and broader training and support for other stakeholders who are not directly involved in policy making. In this way, these actors can be better informed about the way to complete health resource tracking questionnaires and the production and use of data.
- *Dissemination*. NHA reports are disseminated broadly to all public institutions as well as to several key private organizations. Dissemination remains a key part of the government's NHA strategy to enhance accountability and information sharing.
- *Feedback and transparency.* The government encourages feedback and transparency to improve NHA production and analysis. This practice lends credibility to the data and enhances the quality of data produced.
- *Policy advocacy.* It is important to note that NHA institutionalization in Jordan has been facilitated and led by a strong policy advocate, Dr. Taher Abu El-Samen. He has realized the added value of having broad stakeholder support, promoting continuous training, and creating a "home" for health resource tracking data at the cornerstone of policy making.

Although the first NHA findings initially brought forth some resistance from key industry leaders in the pharmaceutical sector, these industry

giants have been brought in to inform the discussion, provide data, and ultimately become NHA supporters.[10]

Moreover, Jordan is continuously seeking ways to improve quality controls. Specifically, it is exploring uniform methods to pool data across sectors to improve comparability across agencies. In addition, detailed private health expenditure data (from private hospitals) is often incomplete and remains an area of ongoing inquiry (Jordan HHC/General Secretariat 2009). Furthermore, demand and use of the data are the main bottlenecks, and Jordan is working to address these issues. Ultimately, the Parliament and the Royal Court are the final decision makers, and demand would come from officials who serve these institutions.

Notes

1. NHA were initially undertaken by a three-person team in the late 1990s, and they fell under the mandate of the Ministry of Health. Several key stakeholders (for example, the Royal Medical Services) were independent of the MOH, and, therefore, NHA were moved under the Prime Ministry to hold all stakeholders in the health sector (public and private) accountable and to facilitate transparency. This decision was part of a broader recognition that the home for NHA should be at the hub of policy making (Nandakumar and Ravishankar 2011).
2. Allyala Nandakumar (professor of the practice and director, Master of Science Program in International Health Policy and Management, Heller School for Social Policy and Management, Brandeis University, Waltham, MA), personal interview, May 4, 2011.

3–4. Allyala Nandakumar (professor of the practice and director, Master of Science Program in International Health Policy and Management, Heller School for Social Policy and Management, Brandeis University, Waltham, MA), personal interview, May 4, 2011. Taher Abu El-Samen (director and secretary-general, High Health Council, Jordan), personal interview, May 10, 2011.

5. Taher Abu El-Samen (director and secretary-general, High Health Council, Jordan), personal interview, May 10, 2011.
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7–8. Taher Abu El-Samen (director and secretary-general, High Health Council, Jordan), personal interview, May 10, 2011.

9. Allyala Nandakumar (professor of the practice and director, Master of Science Program in International Health Policy and Management, Heller School for Social Policy and Management, Brandeis University, Waltham, MA), personal interview, May 4, 2011. Taher Abu El-Samen (director and secretary-general, High Health Council, Jordan), personal interview, May 10, 2011.

10. Taher Abu El-Samen (director and secretary-general, High Health Council, Jordan), personal interview, May 10, 2011.

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CASE STUDY 6

The Republic of Korea: Addressing Inequities in Financial Access to Care and Pharmaceutical Cost Inflation

Establishing Strong National Health Accounts Data Production Capacity and Links to Policy

Key Points

- In the Republic of Korea, National Health Accounts (NHA) have been used to inform debates about the inequities in financial access to care and the need to control costs in the pharmaceutical sector.
- Korea's institutional home for NHA, Yonsei University, has sufficient production capacity and technical expertise. However, the home of NHA in Korea has shifted over time, according to the location of the required skills and expertise.
- Translation of data to inform policy has been facilitated by broad dissemination to a variety of stakeholders, as well as by the presence on the production team of a focal point who is actively engaged in policy making. This person ensures that data can be readily publicized and shared broadly by a well-informed audience and that data can actively feed into the health sector's policy-making process.

National Health Accounts (NHA) are fully institutionalized in the Republic of Korea, with 28 years of data available. Notably, the institutional home for NHA has changed over time in response to the location of production expertise. Korea has a highly skilled production team, and various mechanisms are in place to facilitate the uptake of insights from the data produced to inform policy debates. In particular, NHA have been used to identify ways to remedy inequities in financial access to care and to address the cost inflation of pharmaceuticals. The NHA focal point, who has several links to the policy-making process, aids in facilitating the translation of data into policy-relevant insights. Such insights from NHA have improved government accountability and transparency on health spending issues.

NHA Institutionalization in Korea

In the early 1990s, the institutional home for NHA was the Korea Institute of Health Services Management (KIHSM), predecessor of the Korea Health Industry Development Institute. KIHSM changed to the Korea Institute of Health and Social Affairs (KIHASA) from 1998 to 2003 after joining the Organisation for Economic Co-operation and Development (OECD). As of 2004, however, NHA are housed at Yonsei University under the commission of the Ministry of Health and Welfare. This shift was due to the technical expertise available at Yonsei University. Thus, whereas previously NHA tables were produced by the KIHSM and the KIHASA in a two-dimensional manner (that is, by financing and function), the NHA team at Yonsei University has succeeded in constructing three-dimensional tables required by the OECD's System of Health Accounts (SHA). Currently, the organization officially responsible for NHA production is the Ministry of Health and Welfare. The ministry contracts out the NHA production to Yonsei University, which is responsible for producing the full set of NHA tables and matrixes (Jeong 2004).

Professor Hyoung-Sun Jeong, the NHA focal point, leads the NHA technical team at Yonsei University with the help of five assistants (three doctoral students and two master's degree students). One or more professors from other universities have joined the team annually. In addition to production, the team is also responsible for issuing government press releases on NHA data, publishing and distributing NHA annual reports to researchers and institutions, responding to technical questions about NHA figures, and so on. The part of the team that

focuses on the production of NHA collects administrative and survey data produced by various organizations and maps them into the SHA tables according to the SHA manual. Following a learning-by-doing approach, the team carefully documents its methods and processes. Although the team does not work on NHA data production full time, its members appear to have sufficient knowledge to avoid production interruptions from occurring in the event of staff turnover. Once produced, the data are shared with the Ministry of Health and Welfare and the OECD.[1]

There are many ways in which NHA data have been shared and many instances in which insights from the data have contributed to key policy debates:

- ***Publicity.*** NHA data are posted on Korea's health accounts website,[2] and press releases are issued after the annual publication of the NHA report.

- ***Use of data beyond NHA.*** Whereas the NHA focal point responds to policy-oriented questions, other researchers use OECD health data to run analyses and contribute to important policy discussions. Thus, Korea has a tradition of using data beyond NHA to inform policy. These analyses may not be directives of the Ministry of Health and Welfare, but, instead, may be taken on independently by the researchers themselves.

- ***NHA Forum.*** Developed in March of 2008 for discussion of production and for data diffusion, the NHA Forum is attended by members of the Ministry of Health and Welfare, several researchers from the KIHASA, representatives of the National Health Insurance Corporation (NHIC), and professors from a few universities. Thus far, the NHA Forum has not been extremely active, but there are plans to make greater use of it as a discussion forum to highlight technical queries and other concerns. For example, the NHIC (Korea's single payer) has shown a growing interest in the data. Nevertheless, the forum's audience and the number of users need to be expanded, and, as a result, the NHA Forum (under the Korean Association of Health Economics and Policy) has planned various activities, including workshops in 2011–12. Furthermore, the opinions and suggestions of the NHA Forum members are reflected in the production process.

Although there is no steering committee per se to validate and conduct quality assurance of the data, participants discuss the results at the NHA Forum and the Ministry of Health and Welfare reviews the validity of the methodology and the estimates made.3 It is significant that insights from the data have been regularly invoked in important policy discussions and debates. For example, NHA data are frequently cited in discussions of public shares of total health financing compared to those in other OECD countries. With the impending presidential elections, political parties have cited NHA and OECD Health Data figures to highlight Korea's low public health spending as a proportion of total health expenditures (THEs). Specifically, although the public's share as a proportion of total pharmaceutical spending remains at about the OECD average, the public's share of inpatient expenditures falls far below the OECD average.4 Figures such as these make the case for shifting public health spending from pharmaceuticals to inpatient care.

The following are other ways in which the potential for NHA to add value has improved:

- ***Links.*** NHA focal point, Hyoung-Sun Jeong, has previous experience working at the Ministry of Health and Welfare and currently has an advisory role there. Those links facilitate the uptake of insights from the data. He is also a member of the Committee for Health Insurance Policy, which is the highest committee determining the National Health Insurance contribution rate and fee schedule. His membership provides an opportunity for NHA results to be publicized and broadly shared with a well-informed audience, thereby actively feeding into the health policy–making process.[5]

- ***Recognized standards.*** Further improving the uptake of insights from the data is Korea's use of international standards and techniques. Figures are consistent with SHA guidelines, an international standard, thereby adding credibility and legitimacy to the numbers. Unlike other countries, Korea does not employ competing methodologies that may produce alternative results.[6]

- ***Use of other data.*** Because many inputs beyond NHA data can inform the health sector's decision making, the *National Health Insurance Statistical Yearbook* is among the most important data sources, along with a dozen others, used for NHA. NHA use data from private

health insurance, automobile accident insurance, and injury compensation insurance companies, as well as data from Korea's Medical Aid Program.

- ***Regional sharing.*** Korea's results from and experiences with NHA are disseminated and shared. Korea promotes capacity building for developing countries in the region by hosting annual meetings on SHA methodology and by inviting public servants to Korea for a training course on SHA, during which Korea's experience is shared with participating countries.[7]

Using Insights from NHA to Inform Policy

The following insights were used to inform policy:

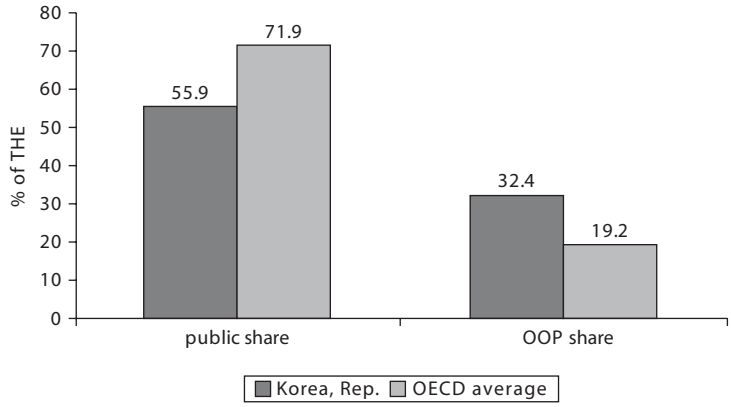
- ***Financial access to care.*** Korea has been characterized as having low public financing for health (55.9 percent of THE, compared to the OECD average of 71.9 percent) with high out-of-pocket payments (32.4 percent of THE, compared to the OECD average of 19.2 percent) (figure CS6.1). These figures have been cited as an area to be addressed in Korea's National Health Insurance (NHI) scheme.

  Although the services covered have gradually expanded, benefits remain relatively low and public funding is limited, leaving beneficiaries with relatively high copayments.[8] Insights from health resource tracking data have thus helped inform policy debates concerning financial access to care and have revealed the need for increasing the depth and breadth of the benefit package.

- ***Pharmaceutical policy.*** NHA data revealed that pharmaceutical expenditures reflect a large proportion of THE—about 23 percent compared to the OECD average of 17 percent. This result has been cited as evidence of Korea's high amount of drug consumption. In response to this finding, various measures to contain costs in the pharmaceutical sector have been introduced since 2006, including (a) a selective (positive) list of NHI-covered drugs, (b) the de-listing of drugs deemed not to be cost-effective, and (c) price-cutting measures to lower the purchase price of drugs.

Policy makers in Korea use insights from health resource tracking data to make broad comparisons of how Korea performs relative to OECD countries by highlighting health spending levels and trends. For

Figure CS6.1 Total Health Expenditures: Republic of Korea and OECD Average, 2009



Source: Republic of Korea National Health Accounts data and OECD data for 2009.
Note: OECD = Organisation for Economic Co-operation and Development; OOP = out-of-pocket; THE = total health expenditure.

example, although Korea's health status stands at about the average level of OECD countries, its health expenditures are quite low as shown by the international comparison of NHA figures. As noted earlier, Korea's public share of health spending, which accounts for 55.9 percent of THE, is far lower than the average of the 24 OECD countries that produce SHA cross-tables (71.9 percent) (Jeong, Lee, and Shin 2009).

Data and resource tracking have thus helped provide answers to the following key policy questions:

- At the national level:
  - How can Korea improve financial access to care and reduce the health financing burden borne by households?
  - How can Korea contain cost inflation in the pharmaceutical sector?
  - How can Korea reprioritize public health spending (that is, shift public health expenditures from pharmaceuticals to inpatient care)?
- At the international level:
  - How does Korea compare with OECD countries in terms of health spending levels and trends?

Lessons Learned

The following lessons were learned:

- ***Home of data production and oversight:*** The Ministry of Health and Welfare contracts out the NHA production to Yonsei University, which is responsible for producing the full set of NHA tables and matrixes. The home of NHA has shifted over time, and the current location reflects the broad production expertise at Yonsei University.

- ***Translation.*** The able production team at Yonsei University responds to key technical questions. The NHA focal point (as well as other researchers using OECD Health Data) conducts analyses to answer key policy questions and to inform debates at the national level. Further facilitating translation and uptake of insights from the data to inform policy is the NHA focal point's key role as an adviser in government policy committees, which frequently use the data to inform debates at the highest levels.

- ***Accountability and transparency.*** Opinions and suggestions of NHA Forum members, including the Ministry of Health and Welfare, are reflected in the NHA production process. This collaboration lends credibility to the numbers and enhances the quality of the data produced. Furthermore, the production of NHA and their links to policy have helped to increase accountability and transparency within government (in responding to the needs for health care priorities and programs, for example).

Korea has encountered several challenges regarding production. For the first few years, the main production challenge was to construct a multidimensional matrix while data remained insufficient to do so. With this problem now resolved, a major goal is building consensus on methodology and production, diffusing the results, and enlarging the number of NHA users. Various workshops are currently being planned to expand the audience base for and users of NHA data. In addition, an online discussion forum for the OECD's SHA is now available on the homepage of the Korean Association of Health Economics and Policy. Although more policy makers and academic researchers are using the data now compared to previous years, few of them seem to fully understand the SHA and few are able to fully use the data.[9] As Korea

continues to address these challenges, it will further ensure that uptake of the data to inform and guide policy can be conducted on a routine basis.

Notes

1. Hyoung-Sun Jeong (professor, Department of Health Administration, College of Health Science, Yonsei University, the Republic of Korea), personal communication, August 11, 2011.
2. The website is available at http://www.healthaccount.kr.

3–9. Hyoung-Sun Jeong (professor, Department of Health Administration, College of Health Science, Yonsei University, the Republic of Korea), personal communication, August 11, 2011.

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Jeong, Hyoung-Sun, Jun Hyup Lee, and Jeong-Woo Shin. 2009. "2007 Total Health Expenditure and National Health Accounts in Korea." *Korean Journal of Health Economics and Policy* 15 (1): 1–19.

CASE STUDY 7

Malaysia: Addressing Inequities in Health Financing

Strengthening Human Resources to Sustain National Health Accounts Activities

Key Points

- National Health Accounts (NHA) in Malaysia have prompted the government to review current health financing mechanisms, particularly the high out-of-pocket payments borne by households, which currently stand at 40 percent of total health expenditures.
- NHA are housed within the Ministry of Health and are supported by a regular line item in the budget for data production and dissemination. Civil servants conduct the work, with occasional support and engagement from international consultants.
- Malaysia strives to preempt human resource constraints on the production side by ensuring detailed documentation of NHA processes. Capacity building is conducted on the job and as needed.

Inequities in health financing have been salient issues in Malaysia's health system. National Health Accounts (NHA) have been used to garner evidence to review existing health financing mechanisms and to mitigate the health financing burden borne by households. Although routine budget

allocations for NHA ensure continued data production and dissemination, capacity constraints on the production side need to be addressed. In translating the data to inform policy, Malaysia emphasizes dissemination and information sharing and frequently uses the data in conjunction with other sources.

NHA Institutionalization in Malaysia

NHA in Malaysia currently fall under the NHA Unit within the Ministry of Health's (MOH) Planning and Development Division (the MNHA Unit), which is responsible for annual production of the data. Although the Department of Statistics was considered the institutional home for NHA at the initial stages, the government decided that the MOH had the best understanding of the national health system and, therefore, was best placed to conduct the work.[1] The MNHA Unit comprises the technical MOH staff members who are responsible for NHA production.[2] The government allocates a line item in the annual budget for NHA production and dissemination, ensuring that NHA activities are routinely supported. In this way, NHA are a firm part of the broader government agenda to ensure evidence-based policy making (World Bank 2008).

Prior to dissemination, the MNHA steering committee (SC) reviews national, regional, and local data. The director general of health and the secretary general of the MOH jointly chair the SC. It includes representatives from the MOH and other ministries and government agencies, the private sector, and the academic community. In total, it has 35 members.[3]

Within government, there is growing recognition of the need to strengthen capacity building—for example, to improve staff retention and to conduct regular training on data management, analysis, and use of statistical programs (World Bank 2008). Although international experts and consultants are engaged from time to time, civil servants conduct the work of the MNHA Unit. Thus, in the event of staff turnover, there is insufficient institutional knowledge for production to be carried out without further international assistance. This lack of continuity is a recurring challenge for the MNHA Unit, and it strives to preempt this problem by ensuring there is detailed documentation to address issues concerning NHA production. Capacity building is basically conducted through on-the-job training while NHA production is carried out. Additional training is given as problems arise. In addition to facilitating mail and telephone

communications, the MNHA Unit holds discussion forums with data contributors and stakeholders to consider and resolve issues that arise.[4]

In addition, Malaysia is an active participant in the Asia-Pacific National Health Accounts Network (APNHAN). It participates in APNHAN's annual meetings and workshops. Activities discussed at APNHAN meetings are presented to the NHA SC (World Bank 2008; Zainuddin 2011).

Finally, Malaysia strongly emphasizes dissemination and information sharing. NHA data are disseminated through policy dialogue sessions held every two years that involve various public and private stakeholders in the health sector. Group work during these sessions highlights important issues in NHA and areas that need to be addressed broadly, as well as issues that require the attention of individual agencies. The output of these sessions is disseminated to stakeholders and key policy makers (World Bank 2008). In addition, final NHA products (in either hard or digital versions) are disseminated to all stakeholders in the health sector. Summaries of the data are also documented in the *Health Facts* booklet, a pocketsize health statistics reference produced annually by the MOH. This booklet is disseminated widely in hard copy and online (Zainuddin 2011). In addition to dissemination of the NHA reports and the response to data requests, NHA data are discussed during the MNHA policy dialogue sessions. Other MOH divisions and units with representatives from both the public and the private sectors also use NHA data.[5]

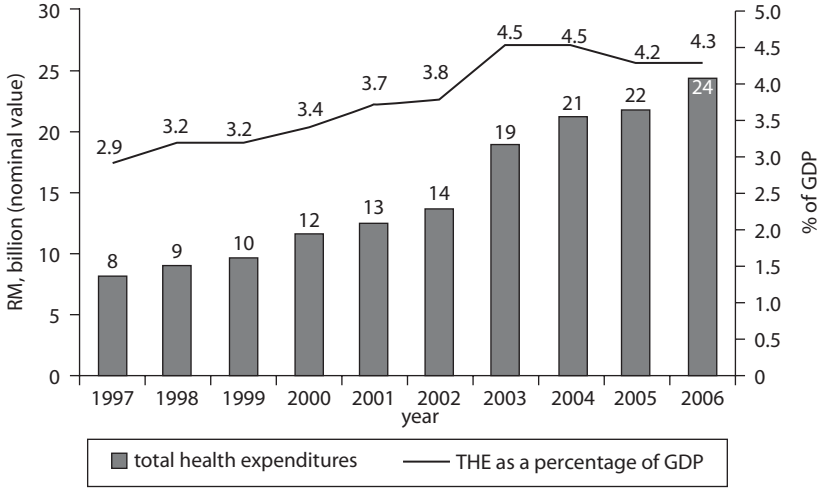
There are some challenges with dissemination and use of the data. For example, dissemination requires a substantial budget for producing hard copies and postage; as a result, dissemination in the form of compact discs (CDs) rather than printed reports, along with web-based uploads of data, have been made. However, there remains a persistent challenge in using NHA data and in gathering insights from the data to inform policy decisions.[6]

Policy makers and researchers in Malaysia frequently use NHA in conjunction with other data sources and instruments. As Malaysia continues with NHA data production and analysis, it will be interesting to observe how these key areas develop to better inform decision making.

Using Insights from NHA to Inform Policy

Total health expenditure (THE) in Malaysia follows an increasing trend. THE as a percentage of gross domestic product (GDP) (4.3 percent in 2006) has also been on the rise (figure CS7.1), but THE as a proportion of GDP remains far below the Organisation for Economic Co-operation and

Figure CS7.1 THE Trend in Malaysia, 1997–2006



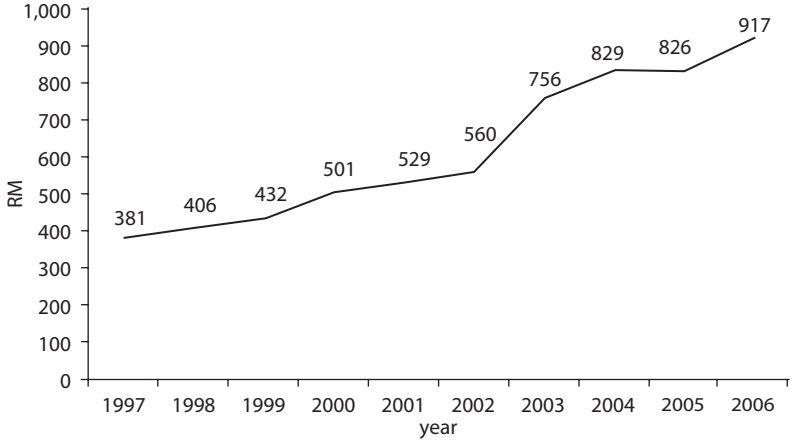
Source: Malaysia National Health Accounts data.
Note: THE = total health expenditure.

Development average of 9 percent. Per capita spending on health more than doubled from 1997 to 2006 (figure CS7.2). In particular, private expenditure as a proportion of THE increased from 44.0 percent in 2002 to 54.8 percent in 2006. Conversely, public expenditures as a proportion of THE declined from 56.0 percent to 45.2 percent during the same period (Mohamad 2009).

Out-of-pocket (OOP) spending in Malaysia is high—40 percent of THE, or RM 9,805 million. High OOP payments and inequitable financing can lead to impoverishment because of catastrophic health expenditures. The high proportion of OOP expenditures (particularly for pharmaceuticals) reflects the lack of an affordable prepayment mechanism for the general population (Mohamad 2009).

These data have led to reviews of the current health financing system and proposals to introduce national health insurance according to a community rating. The aim is to develop national health insurance with an intermediary government body (the National Health Financing Authority) as a single-fund manager. This method would create a single-payer system that is funded through government revenues and channeled into the National Health Insurance Fund. Contributions would be based on a person's ability to pay, with the government providing assistance for disadvantaged groups (Mohamad 2009).

Figure CS7.2 Per Capita Health Spending in Malaysia, 1997–2006



Source: Malaysia National Health Accounts data; Mohamad 2009.

Data and resource tracking have thus helped provide answers to the following key policy questions:

- At the national level:
  - How can Malaysia evaluate and reconfigure its health-financing mechanisms?
- At the international level:
  - How does Malaysia compare with its neighboring countries on health spending levels and trends?

Lessons Learned

The following lessons were learned:

- *Public financing.* Malaysia uses public funds to produce, analyze, and disseminate data, such as NHA, for decision making. There is a line item in the annual budget to support the production and dissemination of NHA data. This provision promotes the sustainability of NHA long term and ensures that they are an integral component of using data to improve resource allocation within the public sector. Malaysia receives minimal donor funds; support from development partners such as the World Health Organization is used to finance consultants who engage in capacity building (Zainuddin 2011).

- *Home of data production and oversight*. NHA are housed under the MNHA Unit within the MOH's Planning and Development Division. In this way, insights from the data can be used at the hub of policy making with government support at the highest levels.
- *Multistakeholder involvement*. The MNHA SC is an interdisciplinary team comprising members from the public and private sectors. This composition allows for greater collaboration and input from a variety of actors who can translate data to inform policy. The organization of the team also encourages feedback and transparency to improve NHA data production and analysis.
- *Dissemination*. NHA reports are disseminated broadly to all public institutions, as well as to private organizations and civil society. Dissemination remains a key part of the government's NHA strategy to enhance accountability and information sharing.

As to challenges, there is a need to strengthen capacity building in Malaysia. The MNHA Unit has been plagued by high staff turnover because of promotions and transfers. As a result, most staff members responsible for data management are only temporary. There is a growing need to address staff retention, and this need has gained visibility among policy makers and has become a key government priority. Moreover, for existing staff members, additional training is needed on data management, methodology, analysis, and use of statistical programs (World Bank 2008).

In addition, the team needs to move toward electronic data collection. Currently, primary data for MNHA are collected by postal surveys. These surveys are conducted using multiple, MNHA-designed questionnaires targeted to various agencies. These data are entered manually into Microsoft Excel to enable data checks and analyses. This process is costly and time consuming.

Finally, additional financing is needed to upgrade the MNHA Business Intelligence Solutions, which is software designed to create NHA tables and matrixes, and to upgrade statistical tools used for analysis, such as Stata (Zainuddin 2011).

Notes

1. The Department of Statistics was also more inclined to use the System of National Income Accounts methodology, which is in line with National Income Accounts, rather than the SHA methodology used for NHA.

2–6. Jameela Zainuddin (head, Malaysia National Health Accounts Unit, Planning and Development Division, Ministry of Health, Malaysia), and

Rozita Husein (head, National Health Financing Unit, Planning and Development Division, Ministry of Health, Malaysia), written communication, 2011.

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CASE STUDY 8

Mali: Informing Health Policy and Addressing Geographic Disparities in Health Financing

*Increasing Ministry of Health Ownership to Strengthen the Link between National Health Accounts and Policy Use**

Key Points

- Mali has used health resource tracking data to analyze resource allocation between central and peripheral levels and to review the composition of health financing. This tracking revealed that households account for 65 percent of total health expenditures.
- Mali's governance model for National Health Accounts (NHA) is led by the Ministry of Health (MOH), yet production is conducted by the Institute for Public Health Research, outside the MOH. Multisectoral involvement is a critical component to NHA production.
- Capacity building has improved over time, and there is a growing recognition of the need to better involve the MOH in the NHA process and to build capacity so that the data can ultimately reach policy makers.

* The documents needed for writing this case study were translated from French into English by Damini Bansal of the World Bank.

National Health Accounts (NHA) in Mali have been used to highlight and address the geographical disparity in health financing between central and peripheral levels and the country's current health financing mechanisms. Mali has attempted to build production capacity over time. If one looks ahead, the hope is that, through further capacity building, NHA data can be regularly used to inform government policy.

NHA Institutionalization in Mali

NHA data in Mali are mainly produced by a two-person team of health economists, based at the Institute for Public Health Research (INRSP). The work of the INRSP team is overseen by the Ministry of Health (MOH), but the entire NHA production process includes multisectoral involvement. This highly skilled team takes data inputs from household budget surveys, provided by the Bureau of Statistics and the MOH's Financing Department, to create NHA matrixes and tables.[1] The team also conducts quality checks on the data received. This technical team then sends the NHA results to the Planning and Statistics Office of the MOH, which is essentially the institutional home for NHA in Mali. The MOH team, comprising four to five individuals, serves as an intermediary between producers and policy users. Their task is to take the data produced by the technical team and analyze that data in ways that reach policy makers (World Bank 2008).[2]

Since the 1980s, emphasis on capacity building for production within the INRSP has increased. The institute has conducted NHA analyses and increasingly built capacity, ultimately establishing the INRSP's Health Economics Department. On the user side, recognition has been growing about the need for better involvement of the MOH in the NHA process and for capacity building so that the data can ultimately reach policy makers. To illustrate, although the first two rounds of NHA in Mali were done solely by the INRSP, the MOH—encouraged by development partners and the INRSP—has become an active participant in the NHA process and a primary user of the data. The MOH views NHA as a means to inform planning; it continues to work in conjunction with the INRSP as capacity within the MOH is gradually built.[3]

To date, capacity building within the MOH has been more ad hoc than routine, but plans are under way for regular, intensive training. A training-of-trainers workshop was held September 5–9, 2011, to train MOH staff members, including individuals from its financing, planning, and legal departments, as well as staff members from the Bureau of Statistics, Ministry of Finance (MOF), and related public health institutions,

including the INRSP. The aim is to build capacity broadly within the public health sector and to create a deeper understanding of what NHA are, how they are produced, and how data such as NHA findings can be used to inform policy within related health organizations.[4]

To date, NHA in Mali have been used for ad hoc analyses of health expenditures by government, civil society, research and policy institutions, and development partners (World Bank 2008). Looking ahead, one hopes that, through further capacity building, NHA data can be used regularly to inform government policy. For example, the draft three- to five-year NHA institutionalization plan proposes that a simple NHA cycle be done annually, providing only critical updates, and that a full, comprehensive NHA cycle be conducted every five years. This frequency will lend credibility to the numbers and ensure that the data can be accessible (and used) by the government to inform the broader health policy agenda and to facilitate planning.[5]

Plans also include strengthening the dissemination process. Although previous rounds of NHA results were not well disseminated,[6] the draft three- to five-year NHA institutionalization plan proposes to disseminate broadly the next round of NHA results (2012) to a variety of audiences, including Parliament, nongovernmental organizations (NGOs), MOH, and the Bureau of Statistics, through the Internet, workshops, policy briefs, and flyers.[7]

Currently, Mali uses NHA data in conjunction with other data sources, including health information systems, epidemiological data, demographic and health survey data, and the Development Assistance Database (DAD). NHA are also used in conjunction with other tools, such as the National AIDS Spending Assessment (NASA), Public Expenditure Review (PER), Public Expenditure Tracking Survey (PETS), Marginal Budgeting for Bottlenecks (MBB), and the Medium-Term Expenditure Framework (MTEF). This approach ensures that the utility of tools such as NHA can be translated in ways that reach policy makers. As Mali continues with NHA production and analysis, it will be interesting to observe how these key areas develop to better inform decision making (World Bank 2008).

Using Insights from NHA to Inform Policy

The following insights were used to inform policy:

- ***2008 Health Sector Strategic Plan.*** NHA results were integrated into the 2008 Health Sector Strategic Plan (PRODRESS), informing changes in human resources for health and health financing. Between 1999 and

2004, households in Mali contributed an average of 65 percent to total household expenditures; government contributed an average of 17 percent; the rest of the world, including donors, contributed 12 percent; and decentralized collectives contributed 6 percent (Health Systems 20/20 2011).

- ***Reallocating of health financing toward peripheral levels.*** Insights from health resource tracking data have also been used to inform policy debates around shifting health financing from central to peripheral (regional) levels, in line with the government's policy of decentralization. This policy aims to increase the budget ceiling at the peripheral level and to address the need for capital and other investments. The reallocation of financing to peripheral levels still needs to be evaluated to ensure that monies are reaching their intended beneficiaries.[8]

Data and resource tracking have thus helped provide answers to the following key policy questions at the national level:

- How can Mali inform the government's national health policy, including changes to human resources for health and health financing?
- How can Mali reallocate health financing toward peripheral levels for needed investments?

Lessons Learned

NHA production is housed within the INRSP, which has built up technical capacity since the 1980s to produce NHA findings. The MOH feeds data to the INRSP, and then matrixes are returned to the MOH's Planning and Statistics Office for analysis. This unit therefore serves as an intermediary to translate the data in ways that can be understood and used by policy makers.

To date, the production of NHA data has provided policy makers in Mali with a preliminary evidence base to inform policy making. Mali has recognized, however, that it faces challenges in connection with capacity building, country-level ownership, and dissemination. However, a clear action plan is under way that includes short- and long-term objectives to address these issues.

Mali needs to strengthen its capacity building in NHA activities. Currently, the MOH team comprises only four to five individuals. There is a clear shortage of technical staff and a need to provide ongoing

training. Training has been conducted at a broad level. At a September 2011 training-of-trainers workshop, 21 individuals participated, including stakeholders from the MOH and MOF, Ministry of Social Development, National Institute of Statistics, and National Institute for Public Health Research. As Mali continues to invest in capacity building, it will create a stronger evidence base through which to generate additional insights to inform policy.

Similarly, Mali needs to improve country-level ownership of and commitment to routine NHA production and analysis. Mali largely uses donor funds for NHA production. Only 10 percent is government funded (World Bank 2008). As a result, policy makers tend to view NHA activities as a donor-driven exercise. Improvements will entail creating a broad awareness of what NHA are and how they can be used to inform policy and improve planning.

Finally, little has been done in the way of dissemination to date, but the aim is to inform a wide array of stakeholders, including Parliament, the Bureau of Statistics, MOH officials, and others, through a variety of mechanisms. These efforts will include the online sharing of data, policy briefs, workshops, and flyers. Dissemination as part of the government's NHA strategy will enhance accountability and information sharing. Although this is not the stated objective of policy makers in using NHA, the broad, routine sharing of information will indirectly improve accountability within government.

Notes

1. In the coming years, health expenditure data will be used from demographic and health surveys (DHS), as health expenditure questions have been incorporated into them. (Driss Moulay Zine-Eddine El-Idrissi [senior economist, Health (Sub-Saharan Africa), World Bank], personal interview, June 21, 2011

2–5. Driss Moulay Zine-Eddine El-Idrissi (senior economist, Health [Sub-Saharan Africa], World Bank), personal interview, June 21, 2011.

6. Previous NHA results were available directly from the MOH, development partners, or the INRSP upon request, but results were not broadly disseminated or used. It is unclear why dissemination was weak in previous years (Driss Moulay Zine-Eddine El-Idrissi [senior economist, Health (Sub-Saharan Africa), World Bank], personal interview, June 21, 2011).

7–8. Driss Moulay Zine-Eddine El-Idrissi (senior economist, Health [Sub-Saharan Africa], World Bank), personal interview, June 21, 2011.

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CASE STUDY 9

The Philippines: Monitoring Universal Coverage and Health Spending

Locating National Health Accounts Where Expertise Resides to Strengthen Institutional Capacity

Key Points

- The triangulation of National Health Accounts (NHA) data with various sources has helped identify bottlenecks in the health system and key policy gaps in the Philippines.
- Placing NHA activities at the hub of a country's statistical analyses and projects has ensured access to the statistical and accounting expertise needed for NHA production.
- Workshops and annual forums have provided a platform for dialogue between producers and users and have promoted capacity building for data analysis.

National Health Accounts (NHA) in the Philippines have produced insights that are frequently used as an evidence base to inform the government's broader health sector agenda—to address universal health care coverage and to prioritize health programs and local health financing.

The link between NHA data production and use of the data has been made possible through a variety of factors, including triangulating NHA with other data sources and instruments, creating a cadre of skilled and capable NHA producers, and establishing a standard set of estimation procedures and strong central government buy-in and support. Additional investment in capacity building will secure ongoing production capacity, and the Philippines is currently seeking to improve and strengthen institutional capacity through workshops, forums, and newly developed action plans. These factors have culminated in improving the nexus between data production and use of data to inform policy in the Philippines.

NHA Institutionalization in the Philippines

In the Philippines, NHA are an intrinsic part of the broader government health sector reform agenda in its efforts to develop universal health care coverage and to use NHA data for decision making. For example, a great deal of political support from the central government is making NHA a more routine source of publicly available information for tracking progress in delivering universal health care.[1]

NHA are currently produced by the National Statistical Coordination Board (NSCB), which was created by a presidential executive order in 1986 to serve as the highest statistical coordinating and policy-making body in the Philippines.[2] The order gave the NSCB a mandate to allocate time and responsibilities for collecting data inputs to NHA and assigning specific NHA tasks to staff members. The expertise of the NSCB staff members ensures that they can readily understand, analyze, and release the data once those data are received. The NSCB also produces the National Income Accounts, placing NHA at the hub of the country's statistical system and expertise (Racelis 2008).

Making the NSCB the institutional home of NHA offers several advantages:

- The NSCB's political independence from other government agencies ensures that the numbers produced are credible and can be used directly to inform health policy making.
- The NSCB's location as the central home of satellite health accounts ensures that data at regional and provincial levels (discussed below) follow the same standardized methodology as NHA and are produced

and analyzed at the same central hub. This system enhances the reliability and credibility of local health accounting data.
- The NSCB's convening power allows it to coordinate and convene multilateral forums easily, where the various needs and concerns of other data-producing agencies are discussed.[3]
- The NSCB data are put in the public domain, allowing independent researchers and others to use the data for research, thus generating evidence and independent appraisals of the health sector.[4]

To support the use of NHA, the government created a Health Policy Development and Planning Bureau within the Department of Health (DOH) to use health accounts data, along with other data sources, as inputs for health policy, planning, and research (Racelis 2008). Creating an institutional home for users of NHA data has ensured the routine application of data to inform decision making.

In the Philippines, an emphasis is also placed on simplified NHA analysis based on institutionally generated data and standardized methodologies with clear documentation. This approach ensures that estimates are consistent and credible (Racelis 2008). Furthermore, a clear action plan has been established to ensure a clear, streamlined process for NHA production, with a clear designation of the responsibilities of the agencies producing the data and timelines of when the accounts are due to the NSCB for production. This action plan will remove the need for special requests for data in favor of regular, annual data feeds to the NSCB, thus enabling the agency to produce annual NHA reports and post them on their website. Regular summary statistics can then be published in other annual publications by the NSCB, such as in the *Philippine Statistical Yearbook* (Racelis 2008).[5]

The Philippines also emphasizes capacity building in using data such as NHA for decision making. This effort occurs through several forums. First, the annual National Health Research Forum of the DOH allows dialogue between the NSCB and users. It allows the NSCB to present its findings, highlight the data inputs needed, and specify how the data will be used. The Inter-Agency Committee on Health and Nutrition Statistics (IAC-HNS) is another forum to promote dialogue between producers and users. The IAC-HNS, which is chaired jointly by the MOH and NSCB, contains 20 regular members from both the producers and the users of health statistics. The committee meets quarterly to discuss problems faced by NSCB statisticians in production, areas where help is needed, and mechanisms to facilitate the transfer of data from

data-producing agencies to the NSCB. The Association of Health Maintenance Organizations is a regular participant in the IAC-HNS, although other private sector or academic agencies are not involved at present (Racelis 2008).[6]

Still, room remains for additional capacity building, because the NSCB lacks the statistical staff to conduct the NHA. For example, the NSCB has been scaled down from 10 to 4 members, with one serving as lead coordinator. This reduction is due, in part, to the high attrition of staff members who may opt for higher-paying jobs in the private sector. The staff shortage can also be attributed to a government hiring freeze put in place because of budget constraints.[7]

A move under way to conduct NHA analyses at the local (regional and provincial) level would use local health accounts to produce a deeper, decentralized view of health spending levels and trends, as well as local financing sources. The goal is to move closer to universal health care coverage and to improve fiscal space, as discussed later.[8] NSCB staff members are being used to train local health accountants to that end.[9]

Finally, an important point is that NHA are only one of many inputs that can be used to inform health sector decision making. They are fully optimized when used with other data instruments, for example, the Public Expenditure Review (PER) and the Medium-Term Expenditure Framework (MTEF). As highlighted below, the Philippines serves as a unique example in which NHA data are triangulated and used with other sources to inform policy and illustrate the connections between financial decisions. The Philippines illustrates how the utility of inputs such as NHA data are further enhanced when they can be translated in ways that reach policy makers. As the Philippines continues with NHA production and analysis, it will be interesting to observe how these key areas develop to better inform decision making.

Using Insights from NHA to Inform Policy

Sustained health resource tracking efforts have added value to the health sector in the Philippines by increasing government accountability to ensure financial risk protection for its population, by shifting central government resources to local public health priority programs, and by calling for further inquiry as to the limitations in fiscal space at both national and local levels.

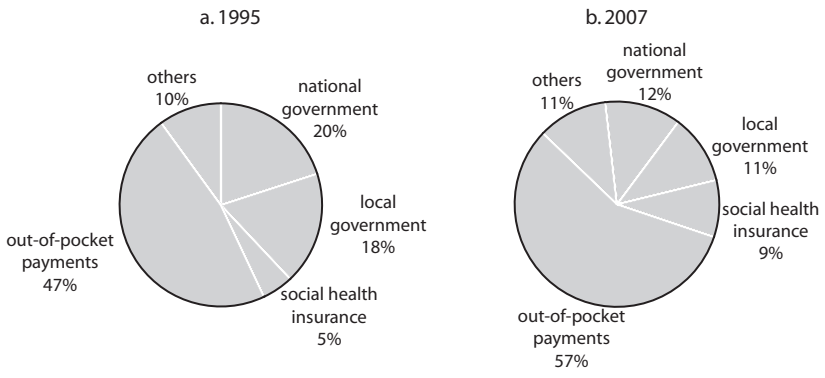
Specifically, insights from the production of NHA in the Philippines have been used to inform the following policies.

Universal Coverage

The lack of effective health care coverage in the Philippines was brought to light by routine NHA analysis, where data was triangulated with the Family Income Expenditure Surveys (FIES) and National Demographic and Health Surveys (NDHS) to illustrate discrepancies between insurance coverage and health financing sources. That analysis illustrated that, although PhilHealth (Philippine Health Insurance Corporation) claimed an 85 percent national insurance coverage rate, social health insurance accounted for only 8.5 percent of all health financing sources in 2007. This finding indicated that 57 percent of health financing was due to households' out-of-pocket expenditures (Lavado et al. 2011). Further, the burden on households has been increasing over time (figure CS9.1). These results served as the impetus to move policy discussions from "coverage" to "effective coverage."[10] Essentially, such findings revealed an inconsistency between the national health insurance policy and the government's ability to implement such a policy by providing financial access to care.

As a result, insights from the data have had a tangible effect on government efforts to mobilize resources as it moves toward universal coverage. PhilHealth has set a target in the Health Sector Reform Agenda

Figure CS9.1 Sources of Health Financing in the Philippines, 1995 and 2007



Source: Philippines National Health Accounts data,1995 and 2007.

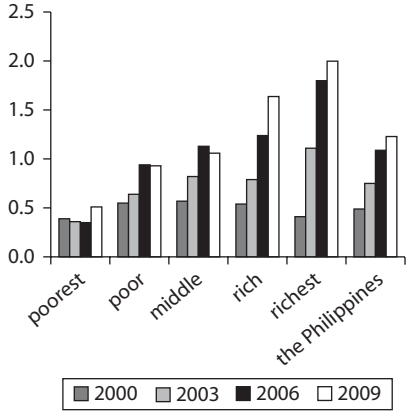
to increase its share of total health expenditures from 9 percent to 30 percent (Racelis 2008).

Insights from effective health resource tracking data have also been used to conduct an actuarial analysis on health insurance in the Philippines—to analyze the costing of and possible changes to the height and breadth of the benefit package. This work is being carried out with technical assistance from the World Bank.

Such findings have also prompted research groups, such as the Philippines Institute of Development Studies, to work in conjunction with the World Bank, DOH, and World Health Organization (WHO) to conduct studies on catastrophic health spending. These studies have highlighted an increasing number of catastrophic health care payments, even for the wealthiest quintiles of the population (figure CS9.2). The figure indicates that households are incurring health expenditures that exceed 40 percent of their capacity to pay and that they are therefore forced to sacrifice other basic needs, sell productive assets, incur debt, or become impoverished (WHO 2010). The results of this joint study have had far-reaching effects; they have been used to inform the 2011 Health Sector Review.[11]

Further, in 2011, a World Bank mission conducted an intensive evaluation of the use of NHA to inform universal coverage. This effort included close discussions with the NSCB and other stakeholders. The goal was to retain the current structure and remove bottlenecks in NHA production.

Figure CS9.2 Proportion of Households Exceeding Their Capacity to Pay by Forty Percent, the Phillipines



Source: Family Income Expenditure Survey, 2000–09.

The lack of effective coverage in the Philippines is firmly on the government agenda. As illustration, in 2011, the president presented existing health insurance coverage rates, financing sources, costs of the benefit package, and the next steps needed to move toward universal coverage.[12] NHA have therefore provided a snapshot of health financing sources and expenditures. Their important findings, in conjunction with other data sources, have served as the catalyst for far-reaching reforms in the health sector. These results have contributed to the 2011 Health Sector Review (World Bank 2011). The NHA are therefore serving as a baseline against which to evaluate the effect of government actions on universal health care.[13]

Priority Public-Health Programs and Local Health Financing

NHA and other resource tracking data have been used to increase central government funding for local public health programs such as vaccination programs. This effort is particularly important in the Philippines, where both national and local governments are responsible for subsidizing health care for the poorest 40 percent of the population. Increased allocations from the central government to provinces have addressed local health financing gaps.[14] However, there are concerns that increased central government allocations to provinces may crowd out local health spending.

Past experiences highlight the fact that local governments' enrollment of the poor in PhilHealth has been inconsistent and dependent on the availability of local government funds and the priorities of chief executives (Lavado, Ulep, and Lagrada 2011). In general, a more rigorous evaluation is needed to understand the sources of local health financing, the variations in local financing by province, and the reason that some provinces finance more of health care than others. This insight has led to 11 provincial-level pilots in which local health accounts have been implemented, with the intention that these will be scaled up to reach all 81 provinces. The DOH is leading these efforts. It has mobilized regional and provincial health accounting staff, ensuring that the NSCB will train local staff on health accounting methodologies. Essentially, further work is needed to examine new ways to finance health care (for example, through "sin" taxes, improved tax collection, and improved allocative efficiency to ensure that government spending reaches priority government programs and local governments that need it most), given the government's limited fiscal space. The issue of limited fiscal space will need to be analyzed in conjunction with local health accounts at the provincial level.[15]

Data and resource tracking have thus helped provide answers to the following key policy questions:

- At the national level:
  - How can the Philippines improve financial access to care and reduce the health financing burden borne by households? How can the Philippines expand health insurance coverage?
  - How can the Philippines improve fiscal space at national and local levels to better finance care?
- At the international level, the Philippines plans to use analysis based on NHA data to answer questions for the future, such as
  - How does the Philippines perform relative to its regional neighbors in terms of health spending levels and trends?

Such regional comparisons were recently made in the 2011 Health Sector Review using WHO and World Development Indicators data, although there will be a move to use NHA results for such regional comparisons (World Bank 2011).[16]

Lessons Learned

The following lessons were learned:

- ***Home of data production.*** NHA activities in the Philippines are housed within the NSCB, which serves as the home for all statistical analyses, and are supported by executive orders from the president's office to ensure the routine production, analysis, and use of data to inform health policy making. Involving national statistical offices from the start of NHA production, with all statistical projects institutionalized, enables more sophisticated analysis.

- ***Capacity building.*** The Philippines promotes capacity building and dialogue between producers and users through the annual National Health Research Forum and through the quarterly IAC-HNS forums. These forums highlight ways to improve and streamline the data production process and to create links between production and use. For management of current delays in production, a thorough review of the NHA methodology has been conducted and action plans have been developed to ensure that there are regular, institutionalized mechanisms to transmit to the NSCB the data being compiled by various

agencies. However, there is room to improve staff retention and to increase current numbers of technical staff members at the NSCB.

There continue to be concerns about weak capacity regarding production at the NSCB. This is now a high-priority issue of the central government. For example, bottlenecks in the release of the FIES results have delayed production and analysis of NHA data.[17] Delays in NHA production can also be attributed to reviews of the NHA methodology by the NSCB, which was finalized in November 2010. The central government hopes to expedite the availability of data inputs so that NHA can be produced annually. The central government is looking closely at technological solutions to the production process and action plans to streamline the production process and address bottlenecks.[18]

Also on the horizon is the involvement of other stakeholders in the production and use of NHA. Whereas currently the Association of Health Maintenance Organizations is involved in the IAC-HNS, and quasi-governmental think tanks such as the Philippines Institute of Development Studies have used the NHA results for their research, there is room for further involvement from other private sector entities, the academic community, and civil society.[19] Further investment in capacity building, particularly regarding production, would ensure ongoing capacity for production of NHA.

Notes

1. Sarbani Chakraborty (senior health specialist, East Asia and Pacific, World Bank), personal interview, June 9, 2011.
2. NHA data were initially produced in the early 1990s solely by academics at the University of the Philippines School of Economics (UPSE). The NSCB has been directly involved in the production process since 1995 and has served as the institutional home of NHA since 1999. The NSCB has since undertaken a thorough review of the initial NHA methodology and parameters (Jessamyn Encarnacion (OIC Director, Social Statistics Office, NSCB), personal interview, June 14, 2011).
3. Jessamyn Encarnacion (OIC Director, Social Statistics Office, NSCB), personal interview, June 14, 2011.
4. Sarbani Chakraborty (senior health specialist, East Asia and Pacific, World Bank), personal interview, June 9, 2011.

5–7. Jessamyn Encarnacion (OIC Director, Social Statistics Office, NSCB), personal interview, June 14, 2011.

8. Sarbani Chakraborty (senior health specialist, East Asia and Pacific, World Bank), personal interview, June 9, 2011.
9. Jessamyn Encarnacion (OIC Director, Social Statistics Office, NSCB), personal interview, June 14, 2011.

10–17. Sarbani Chakraborty (senior health specialist, East Asia and Pacific, World Bank), personal interview, June 9, 2011.

18. Sarbani Chakraborty (senior health specialist, East Asia and Pacific, World Bank), personal interview, June 9, 2011; Jessamyn Encarnacion (director, OIC, Social Statistics Office, NSCB, the Philippines), personal interview, June 14, 2011.
19. Jessamyn Encarnacion (OIC Director, Social Statistics Office, NSCB), personal interview, June 14, 2011.

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CASE STUDY 10

Serbia: Improving Financial Access to Care and Transparency

Building Capacity by Leveraging Regional Networks

Key Points

- National Health Accounts (NHA) in Serbia have helped to improve the transparency of financial flows, particularly in the private sector. The results prompted the development of a 2009 Fiscal Bill Policy requiring all public and private health care providers to provide patients with fiscal invoices.
- Serbia has leveraged regional workshops and forums to begin discussions on how to develop a health evidence law to mandate the submission of data inputs for NHA. Serbia has also used regional forums as a platform for peer learning to share its experiences in NHA production with neighboring countries.
- However, limited government awareness of NHA and their importance, particularly outside the Ministry of Health, demonstrates the need for strong policy advocates to connect data production to analysis and ultimately to policy use.

Serbia has used National Health Accounts (NHA) as an evidence base to address inequities in financial access to care and the lack of transparency in the health sector. Over time, Serbia has transitioned from a model of development partner support to one of local financing and local expertise to support the production of NHA. The country has leveraged the experience of regional workshops and forums to further build local capacity. Yet there are still opportunities to strengthen demand for data and address challenges regarding production, including remedying human resource shortages and improving government awareness of and commitment to NHA. These steps will further enhance the utility of NHA to policy makers.

NHA Institutionalization in Serbia

NHA in Serbia began as a project funded by the World Bank in 2004. In 2006, the first NHA round was conducted with the guidance of two international consultants. This was followed by rounds in 2007, 2009, and 2010. Since 2008, NHA have been entirely government financed, supported by a routine line-item budget from the Ministry of Health (MOH). International consultants neither provide technical expertise nor finance the work. Currently, NHA fall under the purview of the Institute of Public Health of Serbia (IOPHOS), which was commissioned by the MOH to produce the NHA. Although there has been a push to house production within the Central Statistical Agency, this effort has been unsuccessful because of a lack of demand for NHA by the agency.[1]

Production is led by a team of two part-time economists in the Planning Department of IOPHOS. They coordinate with the full-time head of the NHA unit, who is located within the Biostatistics Department of the Center of Informatics and Biostatistics within IOPHOS. All are contracted on a permanent basis, but production has to be balanced with other work priorities within the department. Only the work of the head of the NHA unit is directly related to NHA. This highly skilled team has been trained by international consultants at the World Bank who have guided NHA production and facilitated a learning-by-doing approach during the initial rounds of NHA through the following activities: (a) developing a work plan to obtain data inputs in collaboration with the steering committee, which provided technical support and ensured quality of the data; (b) explaining how inputs could be collected and used for NHA production, with examples;

(c) asking the NHA team to go through the production and validation of data by itself while serving as a source of knowledge; and (d) developing a work plan for NHA implementation. The Bank also provided financial support for steering committee meetings and initial workshops with the international consultants. Since termination of financing in 2008, however, the steering committee is no longer operational because of limited finances within government.[2]

During the years of donor support, the production team was trained by IOPHOS. A representative from the National Health Insurance Fund (NHIF) and the Republican Statistics Office were also trained in NHA but have not yet worked on NHA because of other responsibilities. There is a recognition that capacity building can be further strengthened, particularly in training on new methodologies, yet—unlike the previous years of donor funding—financial resources within government for training and workshops are limited.

Nevertheless, Serbia has leveraged other forums to facilitate capacity building. For example, the World Health Organization's (WHO's) Europe–Eastern Mediterranean Region (EURO-EMRO) meetings on the revision of health accounts, which included experts from the region, were attended by the head of the NHA unit. These meetings were seen as a way to foster learning on how to make NHA recognized as an official health statistic through the development of a health evidence law that would mandate the submission of data inputs needed for NHA production and the delineation of production responsibilities (as seen in Georgia). The head of the NHA unit has been part of the working group involved in the formulation of this law, guided by consultants from Slovenia. To date, however, the law has not been completed, and its status remains ambiguous. The EURO-EMRO meetings were also seen as a way to build understanding of NHA, by enhancing communication among peers involved in production and facilitating the sharing of experiences (both positive and negative) encountered by different countries in production. Thus, the regional forums created a sense of camaraderie and support, but the NHA team's current involvement with other regional workshops has been placed on hold, possibly owing to limited financial resources by the government to support these efforts.[3]

There is limited awareness of NHA and their importance within government, particularly outside of the MOH. This demonstrates the need for a strong policy advocate or advocates to connect data production to analysis and ultimately to policy use. To increase awareness, the

production team has attended internal and external Continuing Medical Education workshops where the head of the NHA unit has highlighted the importance of NHA and its potential to inform policy. Despite this attempt, dissemination remains weak. This contrasts with the second round of NHA, in which donors financed eight workshops for interested policy makers and researchers. Current dissemination mechanisms are limited to the posting of results on the IOPHOS website, production of annual reports, and sharing of results with international organizations such as WHO. Weak dissemination highlights the limited use and awareness of NHA among policy makers at the highest levels and the failure of production and analysis to generate insights to inform policy.[4]

Serbia uses NHA in conjunction with other data sources. For example, in its estimation of private health expenditures, Serbia uses NHA in conjunction with the Republican Statistics Office data and Living Standard Measurement Study household budget surveys, complex annual reports from health care providers, surveys of private entities, and a 2009 World Bank baseline survey. As Serbia continues onward with NHA production and analysis, it will be interesting to observe how these key areas develop to better inform decision making.

Using Insights from NHA to Inform Policy

Insights from the production of NHA in Serbia have been used to inform policy in the following ways:

- *Transparency regarding household health burden*. NHA have helped to improve transparency in the health sector and highlighted the need to address the health financing burden borne by households. Previously, public and private financing flows to the health sector were not well understood. NHA disaggregated total health spending into public and private sources for the first time (table CS10.1). NHA also confirmed that the NHIF was a major source of public funding for health. This awareness prompted the government to increase public spending and reduce the private spending of households. NHA revealed important health information on both the public and the provider side, giving policy makers a greater set of tools with which to inform policy. Before NHA, data on financial flows within the private sector were provided by the Republican Statistics Office. These data were inadequate, however, and insufficient to assess health

Table CS10.1 Health Spending in Serbia, 2003–08
% of GDP

Indicator	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Total expenditure on health (THE)	8.7	8.6	9.0	9.3	9.9	9.8
General government expenditure on health (GGHE)	6.2	5.9	6.0	5.9	6.1	6.1
HIF expenditure on health	5.6	5.4	5.5	5.5	5.7	5.6
Private expenditure on health	2.5	2.7	3.0	3.4	3.8	3.7

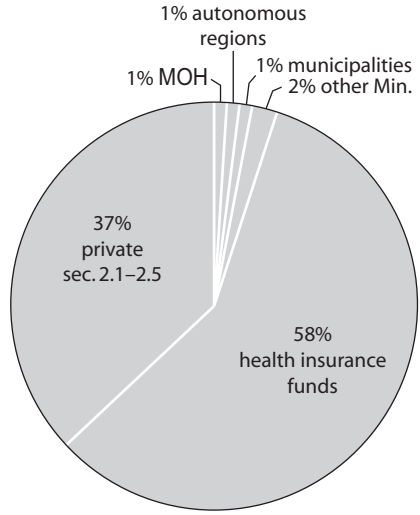
Source: Institute of Public Health of Serbia.

services and expenditures. Policy makers were impressed with the financial picture that NHA could provide and sought greater transparency around private financial flows, resulting in the development of the Fiscal Bill Policy described below.

- ***Financial access to care.*** NHA further revealed that households spend a substantial amount out-of-pocket for health, particularly through under-the-table payments to providers. In total, households accounted for 37 percent of all financing of the health sector. In June 2009, this finding resulted in the development of the Fiscal Bill Policy, requiring all public and private health care providers to provide patients with fiscal invoices. It remains to be seen whether greater transparency will help mitigate the under-the-table payments incurred by households.

- ***Research.*** Finally, insights from health resource tracking data have been used for research purposes in Serbia. For example, the NHA team, along with international consultants, used the data to develop interview questions for Serbia's 2006 National Health Survey, which disaggregated out-of-pocket payments by gender, age group, region, and service area (for example, inpatient, outpatient, and dental). The survey revealed that 44.1 percent of the overall population incurred out-of-pocket payments for health in 2006, that these payments increased steadily with the individual's age, and that 73.3 percent of the population over 75 years of age incurred them (figure CS10.2). Further, the data highlighted the fact that 42.4 percent of the total health care out-of pocket payments are for medications, compared to 17.7 percent for dental services (figure CS10.3) (Serbia MOH 2007).

Figure CS10.1 Financing of the Health Sector in Serbia, 2008



Source: Institute of Public Health of Serbia.

NHA have also been used for studies that estimate the cost of primary health care and assess financial flows in the health system, among a variety of others.

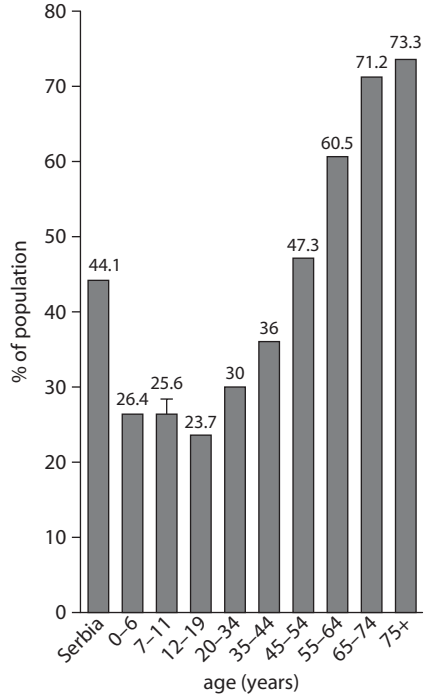
- ***Evaluation.*** It is expected that insights from health resource tracking data will be used to evaluate key health care programs in Serbia, including the NHIF.

- ***Regional comparisons.*** Serbia has used NHA data to compare itself with its regional neighbors on health spending levels and trends. In terms of health spending per capita (in purchasing power parity), for example, Serbia fares far worse than Hungary, Croatia, the Czech Republic, and the Slovak Republic (figure CS10.4).

Data and resource tracking have thus helped provide answers to the following key policy questions:

- At the national level:
  - How can Serbia improve transparency in the health sector?

Figure CS10.2 Out-of-Pocket Payments by Age Group in Serbia, 2006



Source: Serbia MOH 2007.

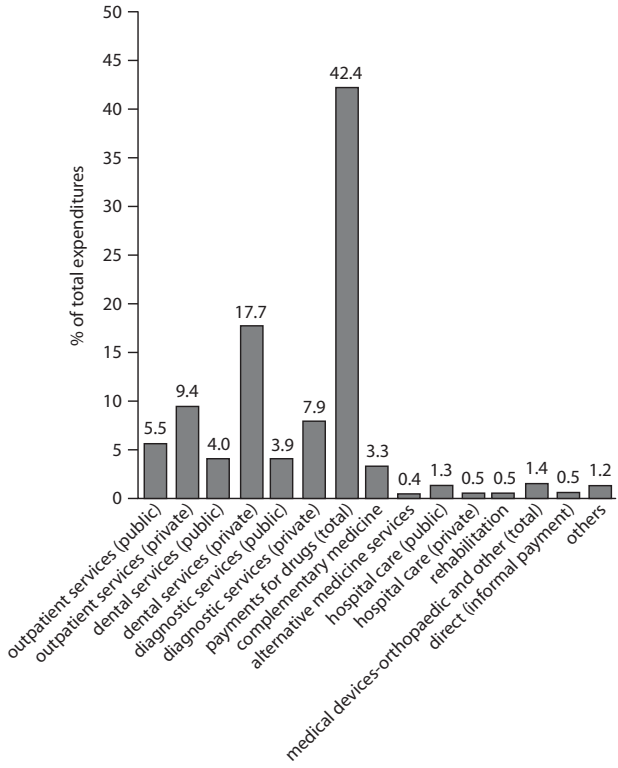
  - How can Serbia monitor households' out-of-pocket payments for health and limit under-the-table payments?
- At the international level:
  - How does Serbia compare with its regional neighbors in terms of health spending levels and trends?

Lessons Learned

The following lessons were learned:

- *Public financing*. Although NHA programs were initially donor supported, Serbia now independently finances NHA production through domestic budgets, promoting long-term sustainability.
- *Home of data production and oversight*. NHA activities have a permanent home within IOPHOS, commissioned by the MOH. In this way,

Figure CS10.3 Out-of-Pocket Payments by Service Area in Serbia, 2006



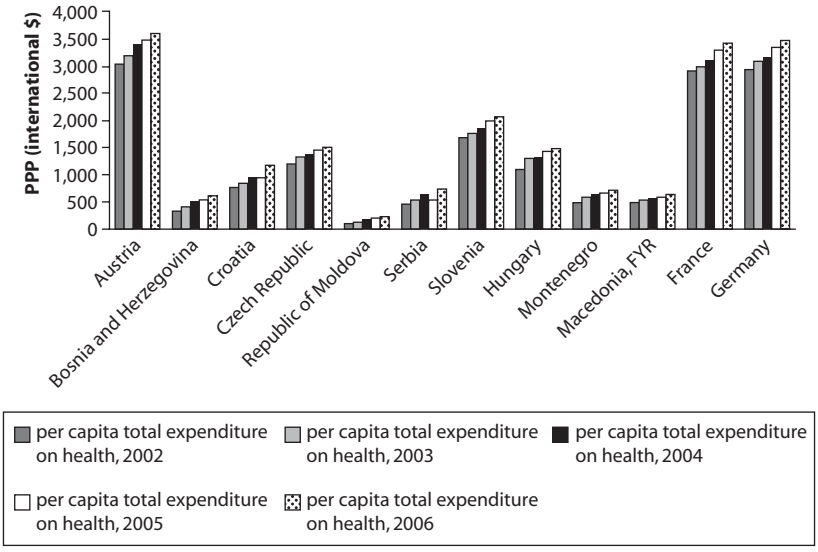
Source: Institute of Public Health of Serbia.

production is in the hands of experts with the requisite technical skills needed for production. In contrast, IOPHOS is having difficulty connecting NHA results to policy making, owing partly to the organization's weak links to policy makers.

- *Capacity building* When possible, Serbia's production team has leveraged workshops and forums to enhance capacity building. These discussion forums are a means to share ideas, present results, and communicate with peers on the production side.

Serbia faces bottlenecks regarding production. There is no specific NHA policy, government mandate, or a memorandum of understanding between IOPHOS, the Ministry of Finance, and the National Health

Figure CS10.4 Total Expenditure on Health per Capita



Source: Institute of Public Health of Serbia.
Note: PPP = purchasing power parity; THE = total health expenditure

Insurance Fund to secure financial data needed for NHA. Only a limited connection exists between the newly established Central Health Information System and health accounts. It is unclear how these production challenges will be addressed going forward.

With respect to users, limited government funding prevents further dissemination of results and is inadequate to support a steering committee that can generate insights from the data for policy purposes. Moreover, although the MOH has supported NHA, other stakeholders within government are unaware of or have little interest in the results, and there is no strong policy advocate within government who realizes the added value of NHA and who can communicate their utility to other stakeholders.

Further support of NHA implementation and use at the regional level may help to strengthen the health systems of countries in the Euro-Asia Network, such as Serbia, and to improve communication and comparability of results.

Notes

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CASE STUDY 11

The Seychelles: Improving Resource Allocation and the Quality of Secondary and Tertiary Care

Institutionalizing National Health Accounts with Full Financial Commitment from the Government

Key Points

- In the Seychelles, National Health Accounts (NHA) have shed light on the low public expenditure for preventive health services (compared to curative care) and the need to improve the quality of secondary and tertiary care.
- Strong government commitment and demand for data to understand health financing flows and to create an evidence-based planning and budgeting process have been critical for NHA institutionalization in the Seychelles. Government commitment to NHA is illustrated by financial support from an array of

The documents needed for writing this case study were translated from French into English by Damini Bansal of the World Bank.

stakeholders in the public sector, including the Ministry of Health, the Ministry of Finance, and the vice president.
- The institutional home for NHA resides where there is sufficient production expertise and knowledge of the importance of NHA as a resource tracking tool.
- The involvement of multiple actors and entities from across government and development partners, along with a committed NHA focal point, has facilitated the gathering of data inputs needed for the production of NHA.

The Seychelles made major progress toward institutionalization of National Health accounts (NHA) in 2010 and 2011. This experience provides an example of a country with the potential to use health resource tracking data to inform decision making for better health outcomes. In the Seychelles, NHA data have been used to highlight the ways resources have been allocated across health programs and the ways to improve the quality of secondary and tertiary care. This process has been fostered by a strong sense of government buy-in at the highest levels and by strong multistakeholder support. Government commitment to NHA is underpinned by financial support from an array of stakeholders in the public sector, including the Ministry of Health (MOH) and the Ministry of Finance (MOF).

NHA Institutionalization in the Seychelles

There has been a continuous effort in the Seychelles to institutionalize NHA and build capacity over the past decade. Trainings that were organized for compiling NHA data with the support of the World Health Organization (WHO) and the Eastern and Southern African Health Community—in 2000 and 2004, respectively—did not materialize as a result of resource constraints. In 2010, the Ministry of Health and Social Development decided to prepare NHA in the Seychelles and enjoyed initial support from WHO in developing the terms of reference and action plan and in supplying equipment for the project. Funds were allocated to support this effort under the WHO program of action (2010–11).

Having conducted the first NHA in 2011, the government, including the MOH, MOF, and vice president, realized the value of NHA in making appropriate decisions needed to improve the performance of the health

system of the Seychelles. Government commitment is illustrated by its financial support to produce the country's first NHA: it covered all expenses including the costs of international experts, showing a determination to understand health financing flows and to create an evidence-based planning and budgeting process.

The institutional home for the Seychelles NHA was located within the MOH because (a) the MOH deals with all policy-related issues concerning the health sector and is the leading ministry for health sector development; (b) it has the potential to generate cost-efficiencies in implementing its policies; and (c) it understood the importance of NHA as an effective planning tool.

NHA are produced with the active participation of a multisectoral team that includes representatives from various sections of the MOH, MOF, Ministry of Foreign Affairs, National Statistics Bureau, Social Development Department, civil society (Liaison-Unit of Non-Governmental Organisations of Seychelles), and insurance companies, as well as from development partners, such as the WHO, and the World Bank. The representatives make up an 18-person multisectoral team with technical expertise and policy experience. The multisectoral team also forms part of the production team. The multisectoral team is led by Jean Malbrook, the NHA focal point and an economist within the MOH. The multisectoral team meets monthly and acts as the liaison between the NHA producers and their respective organizations to provide the necessary data inputs when needed. It is a strong, capable entity committed to the production of NHA. The team is also responsible for generating insights from the data to inform policy.

Capacity building is ongoing in the Seychelles. Two World Bank staff members have conducted a week-long training for stakeholders across the public and private sectors, as well as for nongovernmental organizations in health. This outreach was found to be very useful, and the production team was able to implement what they learned in conducting the NHA exercise the following week. The Seychelles is expected to be assisted by WHO in its program of action (2012–13) in providing training on NHA and disseminating results.

Preliminary results were presented in February 2011 to a broad audience. Highlights of this meeting have been widely reported by the media. Hard copies of the final report will be distributed to stakeholders and posted on the MOH and MOF websites. The Seychelles also intends for the data to be used by a wide variety of stakeholders, including the MOH, MOF, WHO, private health care practitioners, and private pharmacies.

Currently, the Seychelles uses NHA with a variety of other data sources, including household surveys from the Bureau of Statistics and audited accounts, MOH financial data, and national health information systems. Other data sources include primary data obtained directly from employers, private providers, and nongovernmental organizations using questionnaires developed by the multisectoral team.

Uses of Early NHA Insights to Inform Policy

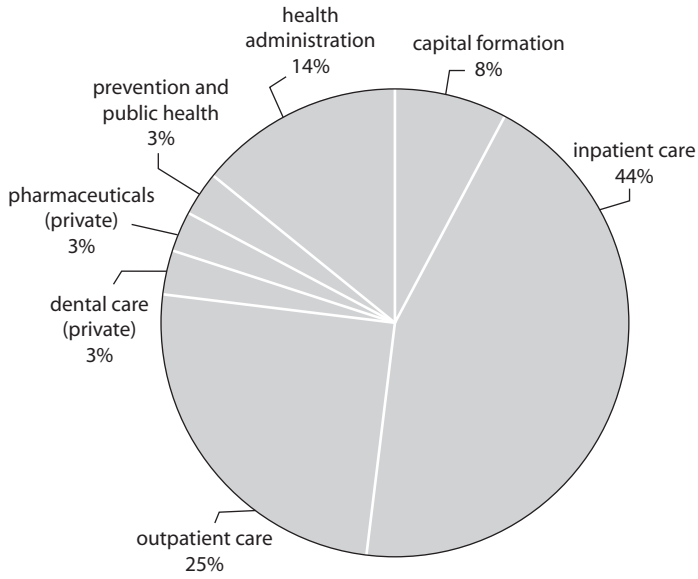
Although it is still too early to see tangible policy effects in the Seychelles, early insights from conducting the first NHA cycle have stimulated the following debates:

- ***Resource allocation for preventive health.*** In 2009, the Seychelles spent 353 million Seychelles rupees (SR) on health care (3.3 percent of gross domestic product) or US$297 per capita on health. Of total health expenditure (THE), 87 percent was financed by government, 7 percent by the private sector (including household out-of-pocket payments), and 6 percent from international partners (Seychelles MOH 2009). The 2009 NHA results showed a need to improve resource allocation for prevention and public health programs. For example, curative care in the Seychelles accounts for 75 percent of THE (and 50 percent of this is at hospitals) compared to only 3 percent for health prevention and public health programs (figure CS11.1).

- ***Improvements in the quality of public health services.*** Effective health resource tracking data have highlighted a need to improve the quality of services in hospitals to reduce the financial burden of obtaining treatment overseas. For example, although household out-of-pocket payments accounted for only 5.2 percent of THE in 2009, two-thirds of this cost was due to overseas treatment and medicines. Where specialized care is needed, however, the Seychelles will continue to support overseas treatment for citizens.

- ***Regional comparisons.*** The Seychelles has plans to use NHA data for benchmarking and making comparisons with its regional neighbors in terms of health spending levels and trends. For example, the Seychelles' out-of-pocket expenditures per capita are significantly lower than those of other comparable countries (table CS11.1). This result reflects the fact that the government is the major contributor of THE.

Figure CS11.1 Health Expenditures by Function in the Seychelles, 2009



Source: WHO National Health Accounts data and the Seychelles MOH 2009.

Table CS11.1 NHA Indicators for the Seychelles and Selected Other Countries, 2009

NHA indicator	*Cyprus*	*Seychelles*	*Mauritius*	*Maldives*	*Barbados*	*Luxembourg*
Population (thousands)	796	87	1,280	305	255	486
THE (% of GDP)	6.7	3.2	4.2	11.2	6.8	7.2
Government expenditures on health (% of general government expenditures)	7.0	8.6	8.3	12.8	11.9	17.3
Government expenditures (% of THE)	45.1	87.0	46.2	69.6	63.8	91.1
THE per capita (US$)	2,098	297	303	426	974	8,592
OOP payment per capita (US$)	973	16	133	101	284	531

Source: WHO National Health Accounts data and the Seychelles MOH 2009.
Note: GDP = gross domestic product; NHA = National Health Accounts; OOP = out-of-pocket; THE = total health expenditure.

With a strong push and financial commitment from government, the production of NHA has provided policy makers in the Seychelles with an evidence base on which to build. However, the country has limited resources with which to support institutionalization. It also faces resistance from private providers who are reluctant to provide information on health expenditures, and many, in fact, provide artificial figures. Further, continued support is needed from key government ministries (for example, MOF and the Ministry of Foreign Affairs). Overall, however, the Seychelles is making great strides in institutionalizing NHA and using insights from the data to identify key policy priorities for the future. With sustained production and capacity building, the evidence base to inform policy will grow and become increasingly sophisticated.

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CASE STUDY 12

Tanzania: Addressing Inequities in Financial Access to Care and Improving Donor Aid Coordination

Strengthening the Policy Use of National Health Accounts Data by Integrating National Health Accounts into Formal Planning and Budgeting Processes

Key Points

- National Health Accounts (NHA) have been used to inform debates about the need for greater financial risk protection for households and for strengthened donor aid coordination.
- Regular feedback loops between the production team and oversight committee have promoted quality assurance and improved the NHA production process in Tanzania.
- Use of NHA in conjunction with other data sources and instruments—National AIDS Spending Assessment, Public Expenditure Review, and Medium-Term Expenditure Framework—has facilitated the translation of insights from data to inform policy.

- Strengthening dissemination mechanisms has fostered greater transparency of health financing in Tanzania. Results were (a) disseminated broadly at the Joint Annual Health Sector Review, where all development partners were present, including members of the public sector—for example, the Ministry of Health and Ministry of Finance—and the private sector; (b) published in policy briefs; and (c) presented at international conferences.

In Tanzania, National Health Accounts (NHA) have been used to address inequities in financial access to care and weak coordination of donor aid. This result has been successfully accomplished by bringing together a variety of stakeholders from across government and research organizations, by exploring data management solutions to facilitate NHA production, and by creating feedback loops for quality assurance. Translation of the data has been made possible through their links to other tools and instruments, as well as Tanzania's broad dissemination of NHA results. Going forward, Tanzania plans to expand dissemination and is currently investing in monitoring and evaluation to better coordinate the collection of routine data. These efforts aim to strengthen the link between the production of NHA data and their use to inform health policy.

NHA Institutionalization in Tanzania

Tanzania has held two NHA rounds to date. The first round, produced in 2001 (using data from 1998/99), was conducted jointly by the government and international organizations. The data were not used to a significant extent to inform policy. The second round, produced in 2008 (using data from 2002/03 and 2005/06), however, has helped create an evidence base to inform policy, as highlighted in the examples below. Building on these efforts, Tanzania currently has a third NHA round in process, as this book is being authored.

The institutional home for NHA activities in Tanzania is the Ministry of Health and Social Welfare (MoHSW). This was chosen to be the custodian of NHA because of its strong technical capabilities and interest in doing the work. The MoHSW was also perceived as having the most to benefit from NHA results. Leading NHA production is a multisectoral team, comprising six MoHSW representatives who allocate about 10 percent of their working time to NHA, along with one representative

each from the University of Dar es Salaam, the Ministry of Finance (MOF), and the National Bureau of Statistics. This highly skilled technical team is responsible for the design of the NHA, data entry, analysis, and reports.[1]

The technical team relies on a variety of data inputs from the MOF; local government authorities; employers (private and parastatal firms); nongovernmental organizations (NGOs); donors; insurance companies; the MoHSW; the Ministry of Home Affairs; and the Ministry of Science, Technology and Higher Education (Tanzania MoHSW 2008). Any problems and queries that arise are channeled to the Health Financing Working Group or steering committee. This oversight committee is responsible for providing guidance on issues related to health financing and for commissioning various studies—including the NHA, Public Expenditure Review (PER), and others. The working group comprises development partners with representatives from the MOF, the private sector, and civil society. The group meets monthly, and feedback loops allow it to provide input on the entire NHA production process to the technical team. In this way, there is open communication and feedback across stakeholders, and quality assurance mechanisms are in place to improve the quality of NHA reports.[2]

Training is conducted as needed. Although development partners have provided team members with extensive training in prior years, further capacity building is needed because of the high turnover of production staff, resulting from promotions and transfers.[3]

The NHA data have been used by a wide array of stakeholders, including the government—for policy planning and budgeting purposes (as highlighted in the examples below); civil society—for addressing the high health financing burden borne by households; research and policy institutions; and international entities such as the World Health Organization (World Bank 2008).

Tanzania has strengthened its commitment to improving dissemination and information sharing. Whereas little was done in the way of dissemination with the first NHA round, a much greater effort has been made to improve dissemination in the second and third rounds. For example, the second round of NHA results were disseminated broadly at the Joint Annual Health Sector Review, where all development partners were present, including members of the public sector (for example, the MOH and MOF) and private sector. NHA results were posted online at the MoHSW website. Also, policy briefs on subaccounts, such as reproductive health, were published online, in conjunction with U.S. Agency

for International Development's (USAID) Health Systems 20/20 project. Findings were also presented at the International Health Economics Association meeting in Beijing in July 2009. For the third round, which is currently under way, efforts will be made to use local media and newspapers as part of the country's dissemination strategy.[4] Together, these dissemination mechanisms will foster increased transparency in the policy-making process.

Tanzania currently uses NHA in conjunction with a wide array of data sources: health information systems, with usage data extracted from the health management information system; subnational data, to analyze expenditures by geographic region; and budget and actual expenditure analysis from other ministries, departments, and agencies dealing with health-related matters. NHA have also been used in conjunction with various data instruments and tools, including the National AIDS Spending Assessment (NASA), which was conducted together with the NHA; the PER; and the Medium-Term Expenditure Framework (MTEF) (World Bank 2008). As Tanzania continues with NHA production and analysis, an interesting observation will be how these key areas develop to better inform decision making.

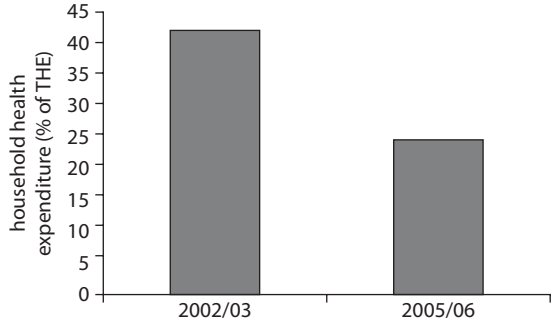
Using Insights from NHA to Inform Policy

The following insights were used to inform policy:

- ***Financial access to care.*** The high level of out-of-pocket payments borne by households was brought to light by routine NHA analysis. Household contributions arise through cost-sharing schemes at government facilities or user fees at private facilities. As illustrated in figure CS12.1, data highlighted that households contributed a large portion (42.0 percent) to health expenditures in Tanzania in 2002/03. This portion constituted 96.8 percent of private health expenditures (Tanzania MoHSW 2008).

  The health financing burden borne by households has led to calls for more equitable financial access to care. As a result, insights from the data have had a tangible effect on policy in Tanzania, prompting the government to expand prepayment (risk pooling) mechanisms such as health insurance and community health funds (a voluntary prepayment scheme for rural households)[5] (Tanzania MoHSW 2008). The proportion of total health expenditures (THE) financed by households declined to 24.6 percent by 2005/06 (figure CS12.1), but private

Figure CS12.1 Health Financing Burden of Households in Tanzania, 2002–03 and 2005–06



Source: Tanzania MoHSW 2008.
Note: THE = total health expenditure.

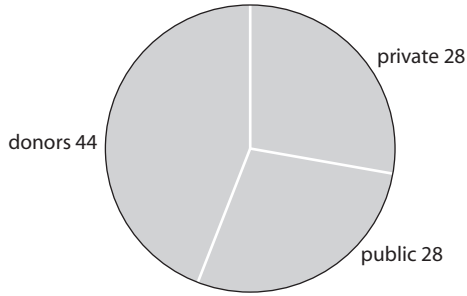
financing per capita increased 30 percent, from US$5.88 in 2002/03 to US$7.63 in 2005/06. The decline in the proportion of private financing is primarily attributable to the increase in donor funding from 27 percent to 44 percent over this period (Tanzania MoHSW 2008).

- ***Donor aid coordination.*** Insights from health resource tracking data have also been used to inform policy debates around donor aid coordination. For example, the second round of NHA in 2008 revealed that both government and donor funding were increasing in absolute and relative terms. Yet while the government's contribution to THE increased from 24.5 percent to 28.1 percent between 2002/03 and 2005/06, donors' contributions increased from 27.4 percent to 44.0 percent over the same period (Tanzania MoHSW 2008). The current health financing composition is highlighted in figure CS12.2.

  In another example, the majority of donor funds have been channeled off-budget, with donors bypassing government and directly financing their own health programs (World Bank 2008). The increase in donor funding has been attributed to the commencement of financing related to human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Tanzania MoHSW 2008).

  Tanzania's high degree of dependence on donor aid was used by the government to advocate for donor coordination mechanisms and the adoption of a sectorwide approach, which has encouraged donors to

Figure CS12.2 Health Financing Sources in Tanzania, 2005–06
% of THE



Source: Tanzania MoHSW 2008.
Note: THE = total health expenditure.

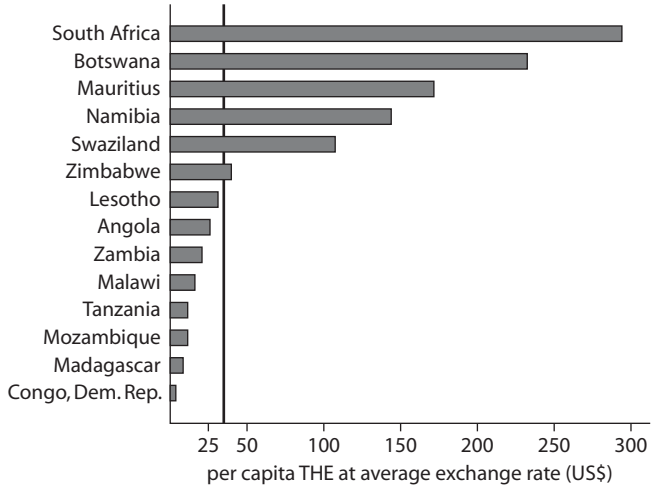
channel funds through a *basket* managed by the government (World Bank 2008). Current results show noticeable progress, as the proportion of donor funds provided for health, through on-budget arrangements, has increased. Although some donors continue to provide off-budget support, their communication and planning with the government has increasingly improved.[6]

- ***Regional comparisons.*** Policy makers in Tanzania use insights from health resource tracking data to make broad comparisons of Tanzania's performance relative to its regional neighbors, by highlighting health spending levels and trends. For example, if one compares countries in the Southern African Development Community, data such as NHA serve as an entry point for health policy discussions and benchmarking against regional neighbors.[7] In 2003, Tanzania ranked low, below US$10, compared with its regional neighbors in terms of THE per capita (Tanzania MoHSW 2008; Musau et al. 2011) (figure CS12.3).

Data and resource tracking have thus helped provide answers to the following key policy questions:

- At the national level:
  - How can Tanzania improve financial access to care and reduce the health financing burden borne by households?
  - How can Tanzania improve donor aid coordination?

Figure CS12.3 THE per Capita in Tanzania Compared with Other Countries in the Region, 2003



Source: Tanzania MoHSW 2008.
Note: The black vertical line indicates the World Health Organization Commission on Macroeconomics and Health target of US$34 per capita.

- At the international level:
  - How does Tanzania compare with its regional neighbors on health spending levels and trends?

Lessons Learned

The following lessons were learned:

- *Home of data production and oversight*. NHA activities are housed under the MoHSW, with the result that insights from the data can occur at the hub of health policy making with government support at the highest levels.
- *Multistakeholder involvement*. NHA are led by a multisectoral production team responsible for design, data collection, and analysis. Representatives from across ministries and the academic community are an integral part of this technical team. An interdisciplinary steering committee for oversight includes representatives from across the public and private sectors and the academic community. This committee allows

for greater collaboration and input from a variety of actors who can translate data to inform policy.

- *Integration into the policy process*. In the formal policy-making process, Tanzania uses NHA in conjunction with a wide array of data sources, such as MTEF and the Joint Annual Health Sector Review, which ensures the use of NHA insights in the country's planning and budgeting process.
- *Dissemination*. NHA reports are disseminated broadly to all development partners, government ministries, and the private sector. Dissemination remains a key part of the government's NHA strategy to enhance accountability and information sharing. There are also efforts to improve dissemination at local levels.
- *Feedback and transparency*. The use of data for decision making has indirectly made policy makers more accountable and improved transparency within and outside government, for example, by highlighting the need to improve donor aid coordination and to address inequities in financial access to care.

The challenges experienced are as follows. First, there is a need for additional capacity building and regular training, owing to the high staff turnover from transfers and promotions. Second, although NHA are both government and donor funded, financing remains insufficient. Government provides an annual budget line item for NHA activities, but current financial needs fall short of allocations. Third, and very important, there are difficulties with accessing data inputs from all stakeholders that are needed to produce NHA analyses. Fourth, many data inputs are available in hard copy only or do not use the NHA classifications that are needed for the analysis. Thus, a great deal of work is needed to modify inputs so that they can be readily accessed for NHA production. Possible solutions include investments in advanced information systems (described below) and development of a compact with stakeholders in health to make health expenditure data annually available in a standardized format.[8]

Finally, there is a general disconnect between central-level budgeting allocations and health spending at the local level, with a need to invest in technological solutions that connect budgeting and spending decisions. For example, PlanRep, a budgeting and planning tool designed to help Council Health Management Teams (CHMTs) analyze their budgets and expenditures, is currently used throughout the country (World Bank 2011). However, this budgeting and planning tool does not connect with the accounting system, Epicor. As a result, budget and expenditure systems do not communicate with each other at the national

level. In response, an institutionalization analysis study was conducted in 2010 that offered several technical solutions. One proposal was to invest in advanced information systems that link budgeting to planning and that would allow the central government to observe the amounts actually spent at local levels, based on central government allocations. This information system would also provide the government with offline access to the data at the central or local level.[9] Toward these aims, a major monitoring and evaluation strengthening initiative is currently under way. It is funded and implemented by a wide array of development partners, under the leadership of the MoHSW. The idea is to work with existing monitoring and evaluation structures, improve coordination across various initiatives and programs (including vertical programs), and coordinate the collection of routine information (Tanzania MoHSW 2010).

Tanzania plans to continue making the necessary investments to address bottlenecks concerning production. Regarding users, strong multisectoral support, routine oversight from both the public and the private sectors, and plans to further expand dissemination will further strengthen the utility of health resource tracking data.

Notes

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CASE STUDY 13

Thailand: Informing Universal Coverage, Pharmaceutical Policy, and HIV/AIDS Spending

Building Institutional Capacity and Policy Networks through Learning by Doing

Key Points

- National Health Accounts (NHA) in Thailand have been used to inform the government's aims to promote universal coverage and to ensure the long-term fiscal sustainability of the health sector.
- Thailand has opted for a learning-by-doing model, and capacity has grown with every round of production.
- The institutional home for NHA resides within the Ministry of Public Health (MOPH) yet is autonomous. The MOPH was chosen as the institutional home for NHA because of the ministry's strong technical expertise and commitment to NHA, including its capacity to mobilize internal financial resources for the production of NHA.
- NHA data are disseminated through an extensive network facilitated by Thailand's diverse working group that includes civil society, research and policy institutions, international entities, and the private sector.
- Use of NHA data with other policy instruments ensures continued demand for NHA.

Thailand has used National Health Accounts (NHA) data to inform its national policy on universal health coverage and debates about pharmaceutical cost containment and human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) spending. Thailand has built capacity incrementally through a learning-by-doing model, with capacity increasing in every subsequent round of NHA. This has strengthened Thailand's local production capabilities, creating a strong institutional base of knowledge. Thailand is able to use NHA data effectively through extensive dissemination to a diverse working group, including academics, researchers, and civil servants, as well as international entities and the private sector. Further, use of the data with other policy instruments ensures continued demand for NHA.

NHA Institutionalization in Thailand

NHA fit into the broader government policy agenda of using evidence-based data to monitor financial inequities. Using data for decision making is underscored by political will at the highest levels across government ministries. Moreover, NHA are perceived within government as being a diagnostic tool to inform policy (World Bank 2008).

The institutional home of NHA in Thailand is the International Health Policy Program (IHPP), as appointed by the Ministry of Public Health (MOPH). The IHPP is the key national focal point and producer of health accounts, with the responsibility for updating NHA data. The IHPP is the autonomous research arm of the Bureau of Health Policy and Strategy within the MOPH. The IHPP was chosen as the institutional home because of its strong technical expertise and commitment to NHA, including its capacity to mobilize internal financial resources for NHA production (World Bank 2008).

The IHPP is unique in that it fosters innovation in research. It generates evidence to inform policy and has a continuous interface with policy makers through its diverse NHA working group, which comprises a wide array of stakeholders from across government who hold information on health expenditures. For example, the IHPP has been working in collaboration with the London School of Hygiene and Tropical Medicine since 1992. Regarding production, the current working group includes researchers from the National Economic and Social Development Board (NESDB); the National Statistical Office (NSO); the Social Security Office, Ministry of Labor; the Comptroller General Department of the

Ministry of Finance; the National Health Security Office; and the Bureau of Policy and Strategy of the MOPH.

The working group compiles NHA data, conducts surveys where needed, tabulates the NHA matrixes, and interprets the results prior to dissemination. In this way, data are generated through a collaborative process, bringing together an array of perspectives to improve the quality of the data and strengthen the use of data for decision making (Tangcharoensathien 2010). Essentially, the working group plays an important role in improving the quality of and access to data and in strengthening transparency and the uptake of insights.[1]

In terms of capacity building, Thailand has opted for a learning-by-doing model. It produced the first NHA round in 1994 with some funding from local resources and with continued support from the Health Systems Research Institute, yet without international consultants. Capacity has grown with every round of production (every two years). The NHA system is built through the mentoring of newcomers regarding production and through a well-functioning network of statisticians from key government entities that fosters collaboration.[2]

Although the primary user of NHA data is the central government, specifically the extensive network created by the working group, the data are also used by a wide variety of other stakeholders. These include civil society, which uses the data to advocate for additional government spending for key program areas; academic institutions; research and policy institutions, which use the data for research purposes; international entities that use the data routinely for international comparisons and trends; and the private sector (World Bank 2008).

Finally, Thailand places a strong emphasis on dissemination and information sharing. NHA results are disseminated every two years. NHA matrixes are posted on the IHPP website in Microsoft Excel and in the form of policy briefs (World Bank 2008). Briefings are held to address specific policy debates. Results are publicized in the media to highlight particular policy issues, as shown in the examples below. Feedback from interested parties (for example, comments and queries from the private hospital sector) is received by e-mail. This open exchange fosters transparency in the policy-making process.

The IHPP and its NHA working group have the necessary capacity to put NHA data in context with other data sources and instruments. For example, Thailand uses NHA data in conjunction with hospital administrative data, such as the International Classification for Diseases or diagnosis-related groups, to estimate health expenditures for curative

and preventive care by disease category. The IHPP also improves the NSO's annual household income and expenditure surveys to ensure accurate estimation of household out-of-pocket payments for health. These figures feed into the NHA. Household survey results are disseminated approximately four to six months after their production to ensure that timely information is used to inform health resource tracking systems such as NHA.

In addition, Thailand uses NHA in conjunction with other instruments, for example, to inform the Medium-Term Expenditure Framework (MTEF) for the health sector for the 10th National Economic and Social Development Plan (table CS13.1). For example, the MTEF highlighted several scenarios in which government can invest more in preventive health and health promotion to address chronic noncommunicable diseases (World Bank 2008).

For data to be effectively used, it is important that technocrats understand the value of using data for decision making, because they play a crucial role in translating insights from data to policy and informing the general public. The capacity to use data for decision making has grown for members of the NHA working group. There is a rolling membership;

Table CS13.1 MTEF under the 10th National Economic and Social Development Plan, 2007–11

	2007	*2008*	*2009*	*2010*	*2011*
Total recurrent expenditures (B, million)	291,344	321,233	355,010	393,091	435,890
Inpatient care	111,585	125,405	141,293	159,469	180,152
Outpatient care	141,764	155,788	171,523	189,152	208,859
Prevention and health promotion	21,505	22,504	23,503	24,502	25,501
Administration	16,489	17,534	18,690	19,967	21,377
Capital formation	14,128	15,234	16,340	17,447	18,553
THE (B, million)	305,472	336,467	371,351	410,538	454,444
Total population (million)[a]	66.23	66.98	67.77	68.56	69.14
THE per capita (B)	4,612.30	5,023.40	5,479.58	5,988.02	6,572.81
GDP, current year price (B, million)[b]	8,469,060	9,191,176	9,868,145	10,594,977	11,375,342
THE (% of GDP)	3.62	3.67	3.79	3.89	3.99

Source: Patcharanarumol et al. 2011.

Note: 1 Thai baht (B) = US$0.03. GDP = gross domestic product; MTEF = Medium-Term Expenditure Framework; THE = total health expenditure.

a. Population estimates by National Economic and Social Development Board.

b. GDP in 2007–08 refers to the National Economic and Social Development Board projections for 2009–11, which are based on the 1993–2007 GDP, using geometric mean annual GDP growth of 7.37 percent.

members are replaced by colleagues from within their organizations. The working group has an institutional memory of the insights that data offer.[3] Together, these factors ensure that data can be translated in ways that reach policy makers. In the spirit of learning by doing, these capacities are expected to continue to grow over time.

Using Insights from NHA to Inform Policy

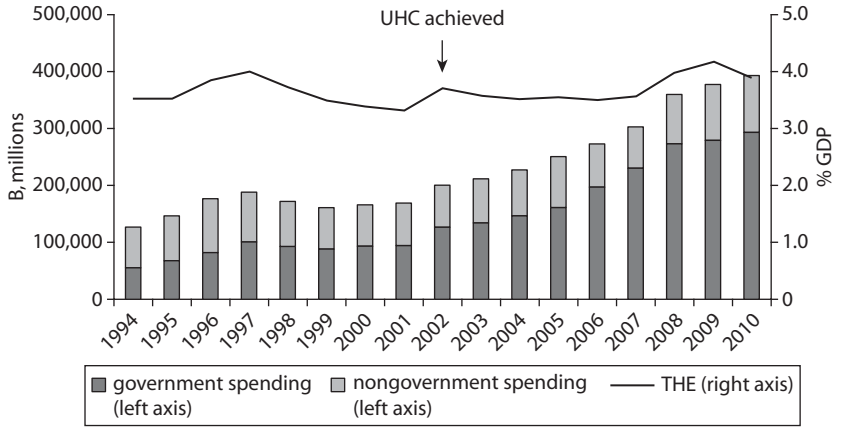
The following insights were used to inform policy:

- *Universal coverage*. Insights from health resource tracking data have been used to inform Thailand's national policy on universal health coverage developed in 2002. Universal coverage was developed through an iterative process over the past several decades. To illustrate, from 1970 to 1990, various health insurance and welfare schemes were established for specific target populations, reflecting a highly fragmented system. A scheme was developed for the poor in 1975, followed by one for government workers and their dependents in 1980 (the Civil Servant Medical Benefit Scheme, or CSMBS). A voluntary community health insurance (or Health Card Scheme) was implemented in 1983 as an option for the informal sector—individuals who neither qualified as low income nor were eligible for the welfare scheme for the poor. Separately, the Social Security Scheme (SSS) was established in 1990 for those in the private sector (IHPP and MOPH 2010).

  Data from NHA (1994–2010) were used to make long-term projections of health spending to ensure that total health expenditures remained sustainable over time. Data were disaggregated by age group, geographic region, and major cost drivers.[4] The data revealed that a large proportion of the population remained uninsured and that households shouldered a large burden of their health expenditures. As shown in figure CS13.1, in 1994 the majority of health financing came from private sources (55 percent of total health expenditure), with public sources accounting for only 45 percent. Households alone accounted for 44 percent of total health financing (IHPP and MOPH 2010).

  Pressure from civil society prompted the government to announce the Universal Coverage (UC) scheme in 2002, incorporating the Low-Income Card Scheme with the Health Card Scheme and extending coverage to those previously uninsured. To date, the UC scheme covers 75 percent of the population, while the CSMBS covers 8 percent and the SSS covers 15.8 percent. As figure CS13.1 illustrates, the

Figure CS13.1 Total Health Expenditure in Thailand, 1994–2008



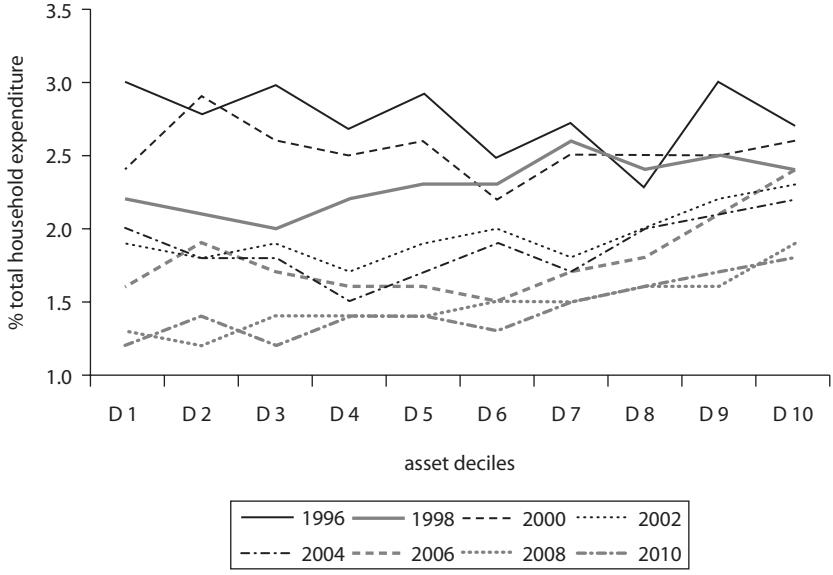
Source: International Health Policy Program, Thai working group on National Health Accounts.
Note: GDP = gross domestic product.

composition of health financing has changed over time, with public agencies accounting for 74 percent of total health expenditure by 2008. Importantly, households now account for only 18 percent of total health expenditures, dramatically reducing their health financing burden (IHPP and MOPH 2010).[5] Furthermore, projections show that total health spending will remain below 6 percent of GDP under the UC scheme, illustrating the sustainability of the scheme.[6]

The introduction of UC has resulted in a significant reduction in household spending across income levels (figure CS13.2). For example, in income decile 1, spending decreased from 3 percent in 1996 to 1.2 percent in 2010; and in decile 10, spending decreased from 2.7 percent in 1996 to 1.8 percent in 2010. the UC scheme has reduced the incidence of households becoming impoverished through catastrophic medical expenses (IHPP and MOPH 2010).

The development of the UC scheme reflects a homegrown process, based on nationally generated evidence, using data such as NHA for further analysis. While there were indirect influences from evidence produced by international entities, there were no direct international influences on the design of the UC scheme. This shows how Thailand is able to bridge the gap between data and policy. Thailand is also able to use the NHA data for decision making, fostered by strong support

Figure CS13.2 Decreasing Level of Household Health Expenditure



Source: Socio-Economic Survey 1992–2006, National Statistical Office, Thailand.

from civil society and strong political leadership at the highest levels (Tangcharoensathien 2010).

- *HIV/AIDS spending*. Insights from health resource tracking data have also been used to inform policy debates around spending related to HIV/AIDS. Data have been used to inform the National AIDS Spending Assessment (NASA). For example, NASA was first produced for 2000–04 with funding by the U.S. Agency for International Development, but with little guidance on how to produce such subaccounts until recently, when the NASA methodology was established. Through the linking of NASA to NHA, HIV/AIDS spending estimates have now been fully institutionalized in Thailand and are produced on a routine basis, as required by the United Nations General Assembly Special Session biennial report (World Bank 2008).[7]

- *Pharmaceutical policy*. Reflections on NHA production have prompted the development of drug subaccounts, such as the

National Drug Account (NDA). This work was initially carried out by a group of researchers with strong collaboration and support from the IHPP and has now been moved internally within the IHPP. These data were proactively used to inform policy debates on drug use. It is important to note that the private sector (for example, the pharmaceutical industry, local producers, and importers) has contributed fully to the development and sustainability of NDA.

Health resource tracking data have been effective in informing debates around the effective use of medicines. To illustrate, representatives from the pharmaceutical industry suggested that Thailand was spending too little on health, particularly on innovative medicine. However, a network of statisticians triangulated the data, allowing the IHPP to produce evidence to the contrary, and highlighted the country's sustainable use of generics as a cost-containing measure. The results were broadly disseminated to the media and throughout society, and the debate was discussed publicly through television and newspapers.[8]

Data and resource tracking have thus helped provide answers to the following key policy questions:

- At the national level:
  - How can Thailand improve financial access to care and reduce the health financing burden borne by households? How can Thailand expand health insurance coverage?
  - How can Thailand inform debates on the sustainable use of medicines?
  - How can Thailand track HIV/AIDS spending?
- At the international level:
  - How does Thailand compare with its regional neighbors on health spending levels and trends?

Lessons Learned

The following lessons were learned:

- ***Institutional home of data production and oversight.*** NHA are housed under the IHPP, an autonomous entity that falls under the Bureau of Health Policy and Strategy within the MOPH. As a result, the use of

insights from data occurs at the hub of health policy making and has government support at the highest levels.

- ***Self-reliance.*** The IHPP and its partners are independent of donor support. They have their own in-house technical expertise and are capable of mobilizing local resources to facilitate NHA production; they conduct routine updates, make methodological improvements, and diversify NHA to other subaccounts such as NASA and NDA.

- ***Multistakeholder involvement.*** NHA have support and involvement from a wide array of stakeholders in the public sector, which constitute the working group, and are continuously used by research and other academic organizations, including civil society. This involvement allows for greater collaboration and input from a variety of actors who can translate data to inform policy. For example, through the working group, the IHPP can leverage the NSO to conduct household surveys and improve their questionnaires to provide accurate estimates of household health expenditures. The surveys are conducted annually and the quality has improved over time, making it easier for respondents to provide accurate information.

- ***Capacity building.*** As a lower-middle-income country, Thailand emphasizes learning by doing. It avoids the hiring of international consultants who produce the Rolls Royce version of NHA. The aim is to improve the quality of data and build capacity over time to ensure that there is ownership of the NHA production process and uptake of data, so that NHA can be used internally to provide insights to inform policy. In addition, because a high proportion of total health spending comes from out-of-pocket payments, the aim is to work with national statistics agencies to improve the quality and frequency of nationally representative household surveys that capture information on household income and health expenditures.

- ***Routine production and analysis.*** NHA are produced routinely every two years, largely financed by government, with some donor funding such as that from the World Health Organization (WHO). This frequency ensures that the data are up-to-date and that timely information can be used routinely by the government and other entities to inform policy. Currently, time-series data from 1994 to 2008 are available, and 2009 and 2010 data became available at the end of 2011.

- ***Dissemination.*** NHA results are disseminated broadly through the IHPP website to help stimulate policy debates. Briefings occur and results are shared throughout the media to highlight specific policy areas. As such, dissemination remains a key part of the government's NHA strategy to enhance accountability and information sharing.

- ***Data triangulation.*** NHA data are triangulated with other data sources, including household expenditure surveys. NHA results are also linked to subaccounts (for example, NDA), ensuring that subaccounts are routinely produced. This activity lends credibility to the numbers and enhances the quality of data produced.

One challenge faced by Thailand lies in disaggregating the data. Often, data are available at the aggregate level, with breakdowns by health care function or provider type (for example, public versus private), based on assumptions or evidence from other household surveys. Local governments do not have good databases to provide more detailed health expenditure information by function and provider.

Furthermore, it has been noted that NHA estimates conflict with NESDB estimates of NHA. The NHA figures produced by the IHPP on health spending were reported in the *World Health Report 2000* (WHO 2000), while NHA data were reported to the United Nations on a routine basis. The working group is currently looking at ways to resolve this discrepancy by improving the methodological approach in NESDB's estimate of NHA data.[9]

Notes

1–4. Viroj Tangcharoensathien (senior adviser, International Health Policy Program [IHPP], Ministry of Public Health [MOPH], Thailand), and Walaiporn Patcharanarumol (senior researcher, IHPP, MOPH, Thailand; and technical officer, Department of Health System Financing, World Health Organization, Geneva), personal interviews, June 22, 2011.

5. Public health financing sources in Thailand include the MOPH, other ministries that provide health care services, local government, the CSMBS, the UC scheme, the SSS, state enterprises, the Public Independent Organization, and the Workmen Compensation Fund. Private sources of financing include private insurance, mandatory traffic insurance, the employer's benefit for employees, out-of-pocket payments from households, nonprofit institutions serving households, and the financing sources from the rest of the world (IHPP and MOPH 2010).

6–9. Viroj Tangcharoensathien (senior adviser, International Health Policy Program [IHPP], Ministry of Public Health [MOPH], Thailand), and Walaiporn Patcharanarumol (senior researcher, IHPP, MOPH, Thailand; and technical officer, Department of Health System Financing, World Health Organization, Geneva), personal interviews, June 22, 2011.

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CASE STUDY 14

Turkey: Developing and Evaluating Health Sector Reform

Using National Health Accounts to Raise and Reallocate Resources and Improve Efficiency in Spending

Key Points

- The National Health Accounts (NHA) in Turkey have enabled the government to identify health system problems and adjust policies accordingly. The data have also contributed to the analysis of the fiscal sustainability of the health system. Institutionalization of NHA has therefore provided a strong evidence base for raising new resources, reallocating existing resources, and improving efficiency of current spending. NHA have also led to successful implementation, evaluation, and management of health reform.
- Strong dissemination of results and information sharing have facilitated the translation of insights from the data to inform policy.
- Turkey has a shared governance model for NHA in which one entity is responsible for data collection and the other entity provides technical support. Technical experts in both organizations subsequently review, validate, and analyze the NHA results.

In 2003, Turkey ranked behind most other Organisation for Economic Co-operation and Development (OECD) and middle-income countries in terms of its health indicators: life expectancy was nearly 10 years below the OECD average, and infant and maternal mortality rates were among the highest of middle-income countries. The public health sector was underperforming as a result of inefficiencies in resource allocation, undertrained staff, and poor incentives. In rural areas, health services were often difficult to access and difficult to use. The health financing system was fragmented, with four separate social insurance schemes (including the Green Card for the poor).

Evidence from NHA facilitated the development and introduction of Turkey's Health Transformation Program (HTP), a comprehensive health sector reform initiated in 2003 to provide financial risk protection. The wealth of NHA data allowed for subsequent evaluation of the reform process and projections of the health systems' fiscal sustainability.

NHA Institutionalization in Turkey

NHA analyses were first initiated in 2001 for the period 1999–2000. They were conducted with technical assistance from the Harvard School of Public Health's International Health Systems Program Studies and within the framework of the OECD System of Health Accounts. Approximately 35 Turkish trainees attended the first NHA training course offered in Ankara in May 2002, and a follow-up course was conducted in May 2003. The initial study took approximately three years for design and implementation. After the initial NHA study was completed in 2003, an international workshop was organized to disseminate technical information, further build capacity, and facilitate the institutionalization of NHA.

NHA activities in Turkey currently fall under the responsibility of two institutions: the Turkish Statistical Institute (TURKSTAT), which collects relevant data and is the primary focal point, and the Turkish Ministry of Health (MOH)–affiliated School of Public Health (TUSAK), which provides technical support to the studies and reviews all data inputs (for example, data from the Social Security Institute and the private sector). By law, TURKSTAT is authorized to request information from all public and private organizations. Once the data are collected, technical experts in TURKSTAT and TUSAK review, validate, and analyze them.

Turkey places a strong emphasis on the dissemination of NHA results and information sharing: NHA results are the official data for health

financing in the country. NHA results are announced in a bulletin by TURKSTAT, published on its official website, and available to all entities upon request. TUSAK also disseminates NHA data to international organizations, such as the OECD, World Health Organization (WHO), and Eurostat (the European Union's Statistical Office). Studies that use health financing data are integrated with NHA and viewed as part of the NHA process. In addition, the translation of insights from NHA data to inform policy is made possible by the strong coordination between various entities—including the State Planning Organization, Treasury, MOH, Ministry of Finance (MOF), and Social Security Institute—in their use of health expenditure data through assorted commissions for policy making.

Using Insights from NHA to Inform Policy

NHA results have been used as an important tool to guide and inform policy making at all stages of the process of developing the HTP.

Development of the HTP

NHA results were used extensively during the development of the HTP, which was designed to address the following long-standing problems in the Turkish health sector:

- Lagging health outcomes in comparison with other OECD and middle-income countries
- Inequities in access to health care
- Fragmentation in financing and delivery of health services, which contributed to inefficiency and undermined financial sustainability
- Poor quality of care and limited patient responsiveness (OECD and World Bank 2008)

The HTP included several key institutional and organizational components:

- ***Restructuring the MOH to strengthen its stewardship function.*** It was envisaged that the MOH would become more of a planning and supervising authority and would focus on functions, such as health surveillance and disease control, monitoring and evaluation, health promotion, quality assurance, and promotion of equitable access. In 2005, to eliminate fragmentation in the public delivery system and provide a basis

for separating purchasing from provisioning functions, hospitals previously owned by the Sosyal Sigortalar Kurumu were transferred to the MOH. The goal of this transfer was to harmonize management and payment mechanisms across all public hospitals, to improve their allocative and technical efficiency, and to pave the way for hospital autonomy in the future.

- ***Establishing a universal health insurance (UHI) system.*** Prior to 2003, several public agencies funded and provided health care to serve different parts of the population, which left significant gaps in coverage. Social security institutions covered employees in the formal sector, while the self-employed and active and retired civil servants were covered through separate schemes with different benefit packages. The government-financed Green Card program covered the low-income uninsured. In 2006, the government initiated administrative integration of the three different security schemes—Sosyal Sigortalar Kurumu, BagKur (for the self-employed), and Emekli Sandigi (for civil servants)—into the Sosyal Güvenlik Kurumu (SGK), under which all citizens were entitled to the same benefits package. The adoption of the Social Security and Universal Health Insurance Law in 2008 created the legal and institutional basis for a fully synchronized health insurance system, the SGK, which now functions as the single purchaser of health services. Benefits were harmonized for all categories of UHI eligibility, including the poor, who are covered under the Green Card system. Today, 87 percent of the population has health insurance coverage.

- ***Restructuring the health services delivery system.*** Prior to the reform, allocative efficiency was poor, with the majority of health expenditures allocated to costly inpatient and outpatient hospital-based services. Thus, the government reprioritized preventive care and developed a family medicine program as a first point of contact. Implementation began in 2004 and was rolled out nationwide by the end of 2010. In 2008, patient satisfaction with primary health care services was 82.8 percent in provinces where family medicine had been implemented, 80.1 percent in other provinces, and 81.2 percent overall, up from 69.0 percent in 2004 (Turkey MOH 2010).

- ***Providing access to information for effective decision making and strengthening human resources capacity.*** Early in the development of

the HTP, it was recognized that information and data would be critical for the successful implementation and monitoring of health reform. This knowledge led to the establishment of the MOH information system, known as Health-Net (or Saglik-Net), and the SGK claims database, MEDULA.

Success of the HTP

NHA have been used extensively to monitor and evaluate progress of the HTP:

- ***Improved financial protection.*** NHA studies and household surveys were used to evaluate universal health care coverage and financial access to care. NHA results reported per capita expenditures for the different social security programs, which were also closely examined before bringing the various programs under the umbrella of the SGK. Prior to the implementation of the HTP, out-of-pocket (OOP) spending was high, and most of it was informal. The poor and elderly paid more per capita than the non-poor and young, respectively (OECD and World Bank 2008). This raised significant equity concerns and received appropriate attention from the government.

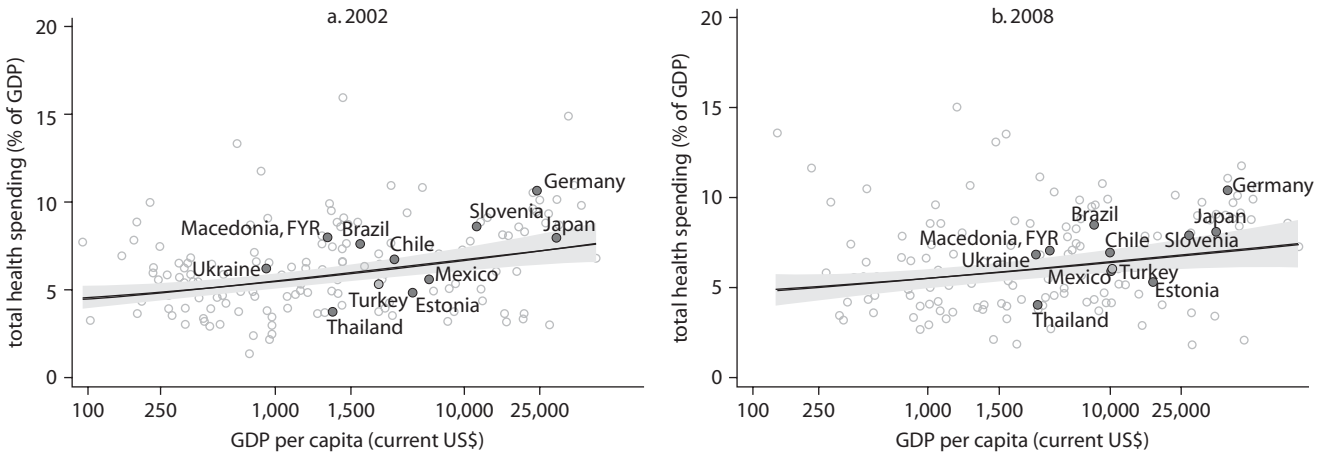
- ***Access to care for Green Card holders.*** One of the objectives of the HTP was to increase financial protection and access to care for Green Card holders. In 2005, Green Card holders were given access to outpatient care and pharmaceuticals, and today, all insurance schemes have access to the same basic benefits package. Formal health insurance coverage has also increased significantly and has now reached 87 percent of the population, compared to 67 percent in 2002. OOP payments—a gross measure of financial protection—have decreased from 27.6 percent of total health spending in 2000 to 17.4 percent in 2008. According to the Life Satisfaction Survey, the share of the population that met the cost of medication and therapy through OOP payments dropped from 32.1 percent in 2003 to 11.7 percent in 2010 (TURKSTAT 2011). In addition, the number of households being driven into poverty as a result of catastrophic medical expenses is decreasing, with Turkey meeting the broad WHO macrocriterion for financial protection. According to the overall information available from the latest NHA and Household Budget Surveys, the Turkish health system appears to be performing quite well in terms of equity and financial protection, both in absolute terms and relative to other countries (World Bank 2011).

- ***Improved delivery of the Green Card program to the poorest quintile.*** Steps have also been taken to ensure the effective targeting of the Green Card program to the poorest population group. As a result, data from the 2008 Household Budget Survey indicate that 70 percent of benefits had reached the bottom quintile of the distribution compared to 55 percent in 2003. In addition, although 2004 per capita spending on behalf of Green Card holders was only half that of SGK beneficiaries, by 2009 they nearly converged; over this period, an equalization of benefits had occurred with improved access to services and freedom of choice for this group of Green Card holders.

- ***Global comparison of health spending and outcomes.*** NHA data have been used extensively to analyze Turkey's position relative to countries with comparable income levels (OECD and World Bank 2008; World Bank 2011). Total health spending increased from 5.4 percent of gross domestic product (GDP) in 2002 to 6.1 percent in 2008. Turkey's current levels of health spending are about average for its income level and similar to other OECD countries such as Chile and Mexico, having improved slightly since 2002, as shown in figure CS14.1.

- ***Performance relative to other OECD countries.*** The HTP has significantly improved Turkey's performance, which is closing the gap with other OECD countries. Turkey has successfully reduced the maternal mortality rate, with maternal deaths per 100,000 live births falling from 39 in 2000 to 19 in 2008. The infant mortality rate of 17.0 deaths per 1,000 live births in 2008 was significantly higher than that in other countries with similar income levels, but the most recent MOH data indicate that in 2010, the infant mortality rate had fallen to 10.0 deaths per 1,000 live births and maternal mortality rates had fallen to 16.4 deaths per 100,000 live births (Turkey MOH 2011a). Even though Turkey has been able to achieve the same success as OECD countries in reducing infant mortality in a significantly shorter time and will meet its Millennium Development Goal target related to child mortality, a global comparison underscores the importance of further improving this outcome (figure CS14.2). As Turkey aims to achieve OECD standards, such comparisons are revealing given Turkey's relatively younger population and anticipated future cost pressures associated with population aging and epidemiological transitions.

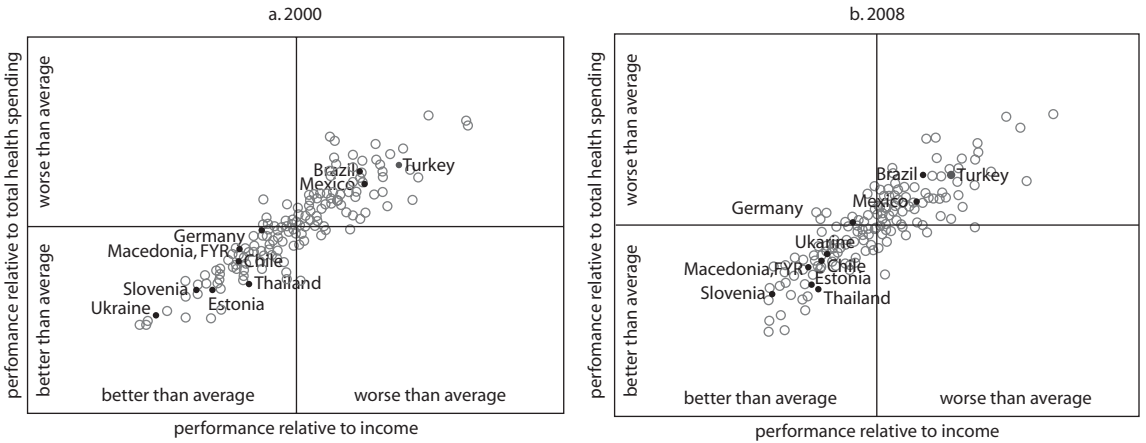
Figure CS14.1 Total Health Expenditures as a Share of GDP versus per Capita Income in Turkey and Other Countries, 2002 and 2008



Source: World Bank.

Note: Hollow circles represent other countries, and the countries named are those that are peer countries or countries against which Turkey generally measures itself. The x-axis is at log scale.

Figure CS14.2 Global Comparisons of Infant Mortality Relative to Income and Total Health Spending in Turkey, 2000 and 2008



Sources: World Development Indicators database; WHO 2010.
Note: Both axes are at log scale. Hollow circles represent other countries.

Use of NHA for Ensuring Long-Term Fiscal Sustainability of the Health System

NHA data have also been used to ensure the continuing fiscal sustainability of the health system:

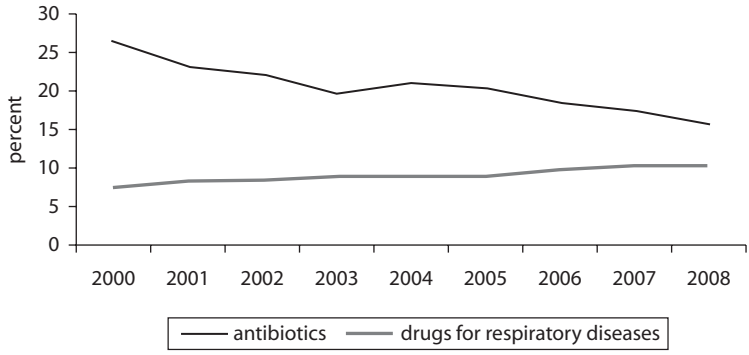
- ***Global cost-containment caps on SGK health spending.*** NHA data indicated that health expenditures were on the rise, prompting the government to introduce global budget caps. A global budget for MOH hospitals was first introduced in 2006. The cap was to be negotiated annually with the MOH and to reflect historical spending levels and medium-term budget forecasts by the Treasury. Since 2010, expenditure caps were also introduced for SGK payments to private and university hospitals and for pharmaceuticals covered under the SGK. NHA studies have shown that expenditure caps for MOH, private, and university hospitals have been successful in curbing spending levels and ensuring the short-term fiscal sustainability of the universal health insurance system. However, the cap on pharmaceutical spending has been less effective. Although pharmaceutical spending declined between 2009 and 2010, maintaining the pharmaceutical spending limit has not been particularly successful. The availability of spending data has helped in the analysis of the potential long-term distortionary effects of the global budget caps on access, outcomes, financial protection, microefficiency, and equity (World Bank and Turkey MOH 2011).

- ***Pharmaceutical spending control.*** NHA studies have highlighted the consistently high levels of pharmaceutical spending in Turkey, with an average annual growth rate of 22 percent between 2003 and 2007. Insights from the data have prompted further investigations into the factors causing high pharmaceutical expenditures, such as overuse of medicines; the use of newer, patented medicines when equivalent generics are available; and the use of expensive medicines in ways that differ from their labeled use. To curb growth rates, Turkey first introduced compulsory rebates for SGK and, finally, in 2010, a budget cap for pharmaceutical spending. However, the overrun of the budget cap in 2010 demonstrated that imposing a budget cap is not sufficient and indicates that a midterm strategy must be implemented to complement the budget cap and manage pharmaceutical expenditures sustainably (World Bank 2011).

Nonrational use of drugs has been identified as a major obstacle to curbing pharmaceutical expenditures, and appropriate steps have begun to be taken. As shown in figure CS14.3, Turkey has achieved some success in its efforts to curb the overuse of antibiotics. Although the use of antibiotics has been decreasing, most recent data have shown an increase in the use of drugs for respiratory diseases, prompting the government to introduce a rule requiring physicians to conduct a forced expiratory volume in one second (FEV1) test for chronic obstructive pulmonary disease (COPD) patients to confirm their eligibility for the prescription of expensive inhalers. Controlling the nonrational use of medicines, however, finds a moving target, and efforts at control have to be adjusted from time to time on the basis of available data.

- ***Monitoring of fiscal sustainability of the health system.*** One of the main goals of the HTP will be to ensure the future, fiscal sustainability of the health system. Actuarial projections using NHA data were first conducted in 2007 under two different cost scenarios to illustrate the need for building cost-containment controls into the system to ensure the financial viability and fiscal sustainability of the health system. Those controls include hard caps on public health spending, cost-sharing mechanisms, and microefficiency measures (OECD and World Bank 2008). As noted above, many such measures were introduced between 2007 and 2010, which limited public health spending to 6 percent of GDP.

Figure CS14.3 Comparison of Market Share for Antibiotics and Drugs for Respiratory Diseases, Turkey



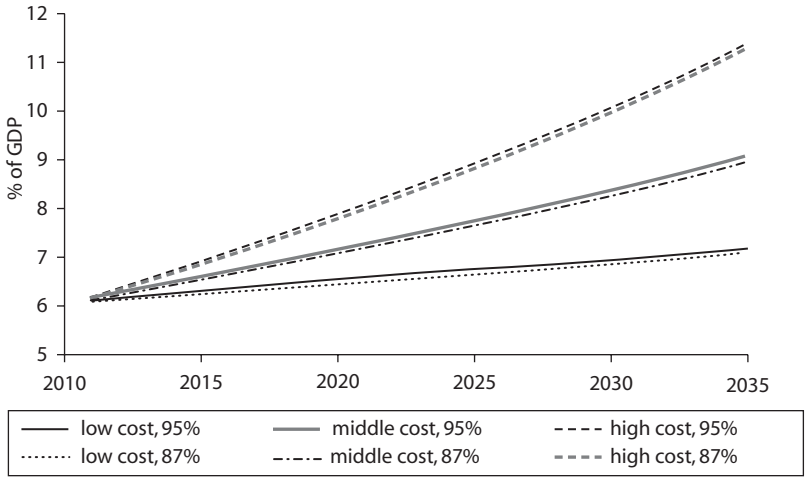
Source: IMS Health.

In 2011, Turkey repeated actuarial projections, using the latest NHA estimates to project future health spending in the short to medium term under three different paths—low-cost, base, and high-cost growth—along with two options for the insured population: (a) the insured population remains stable at 87 percent, and (b) it rises steadily through 2015 to reach a level of 95 percent and remains stable thereafter (World Bank 2011). In 2008, the base path assumed that the percentage growth in health spending would exceed the percentage growth in GDP by 7 percent, but by 2011, Turkey had already surpassed that. In 2011, the base path used the OECD average rate of 20 percent.

The various cost scenarios showed that the principal driver of health care spending in Turkey, under the given assumptions, is "excess health care inflation" and that other institutional policies and factors and a further expansion of coverage will not exert significant cost pressures (figure CS14.4).

All cost scenarios also demonstrated that the SGK deficit as a percentage of GDP will widen over time. While the medium-term program for 2011–13 indicated a zero health deficit for SGK, projections showed that this is unlikely to be achieved even under the cost-containment scenario. Such an analysis is particularly important, because it draws attention to issues of fiscal sustainability and allows

Figure CS14.4 Projections of Total Health Spending in Turkey, 2011–35



Source: World Bank.
Note: GDP = gross domestic product.

the government to review and adjust health policies to avoid unsustainable levels of future spending. As a result of the projections, the study also suggested several policy leverage options that could further curb spending and improve the efficiency of the health sector (World Bank and Turkey MOH 2011).

Data and resource tracking have thus helped provide answers to the following key policy questions:

- At the national level
  - What steps are needed to develop, implement, and monitor successful health reform?
  - How can Turkey improve allocative efficiency, equity, and financial access to care? How can Turkey achieve universal health care coverage?
  - How can Turkey contain costs and ensure future fiscal sustainability of the health system?
- At the international level
  - How does Turkey perform on health spending levels and outcomes relative to other countries with similar income levels?

Lessons Learned

NHA have played an important role in Turkey's HTP. Introduced in 2003, the HTP's objective was to make the health system more effective by improving governance, efficiency, user and provider satisfaction, and long-term fiscal sustainability. NHA data have enabled the government and international organizations to identify health system problems and adjust policies accordingly. In addition, the data have also allowed actuarial projections to be conducted that contributed to the analysis of the fiscal sustainability of the health system.

Every reform program needs to consider raising new resources, reallocation of existing resources, and improvements to the efficiency of current spending. Turkey's experience has shown that institutionalization of NHA provides a strong base for such analysis and leads to successful implementation, evaluation, and management of health reform.

In addition, institutionalization of NHA contributed to the establishment of reliable data collection and processing mechanisms in Turkey. During the implementation of the first NHA study, the government also conducted a household survey in an effort to analyze health spending

patterns, particularly OOP spending, and to cross-check insurance coverage levels. Not only did this survey enable analysis of overall spending levels, but it also allowed for the examination of financial access to health care and equity through various social security programs.

Although many factors are responsible for the improvements in health status in Turkey, a significant portion of those improvements is likely due to higher and more effective spending on health care. Nevertheless, challenges remain, and the next several years will be critical in terms of operationalizing the key cost-containment and efficiency-enhancing reforms in the sector, which will require further use and dissemination of NHA data.

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APPENDIX A

National Health Accounts in Brief

An Overview of National Health Accounts

According to the World Health Organization (WHO), National Health Accounts (NHA) are a tool designed to help policy makers understand their country's health system and improve that system's performance.[1] NHA "constitute a systematic, comprehensive, and consistent monitoring of resource flows in a country's health system for a given period and reflect the main functions of health care financing: resource mobilization and allocation, pooling and insurance, purchasing of care, and the distribution of benefits."[2]

NHA can help identify countries' expenditure gaps and assess the performance of a health system in terms of inputs related to health outputs and outcomes. NHA go beyond the provision of estimates for the resource input envelope and also enable countries to assess the extent to which resources may be misallocated.

What Questions Can NHA Answer?

NHA can answer key policy questions, including the following:

- Where do the resources come from?
- Where do the resources go?

- What kinds of services and goods do they purchase?
- Who provides what services?
- What inputs are used for providing services?
- Whom do they benefit?[3]

What Boundaries Do NHA Include?

"National health expenditure encompasses all expenditures for activities whose primary purpose is to restore, improve, and maintain health during a defined period of time. This definition applies regardless of the type of the institution or entity providing or paying for the health activity."[4] In addition, NHA are comparable across time and space, allowing evaluation of changes in health expenditures over the years and of differences in experience among different geopolitical entities.[5]

What Are the Six Key Dimensions of NHA?

NHA comprise data tables that enable systematic tracking of the flow of resources in a country's health system (figure A.1). NHA take into account both public and private sector activities in health and are a key input in the design, implementation, and evaluation of health policies.

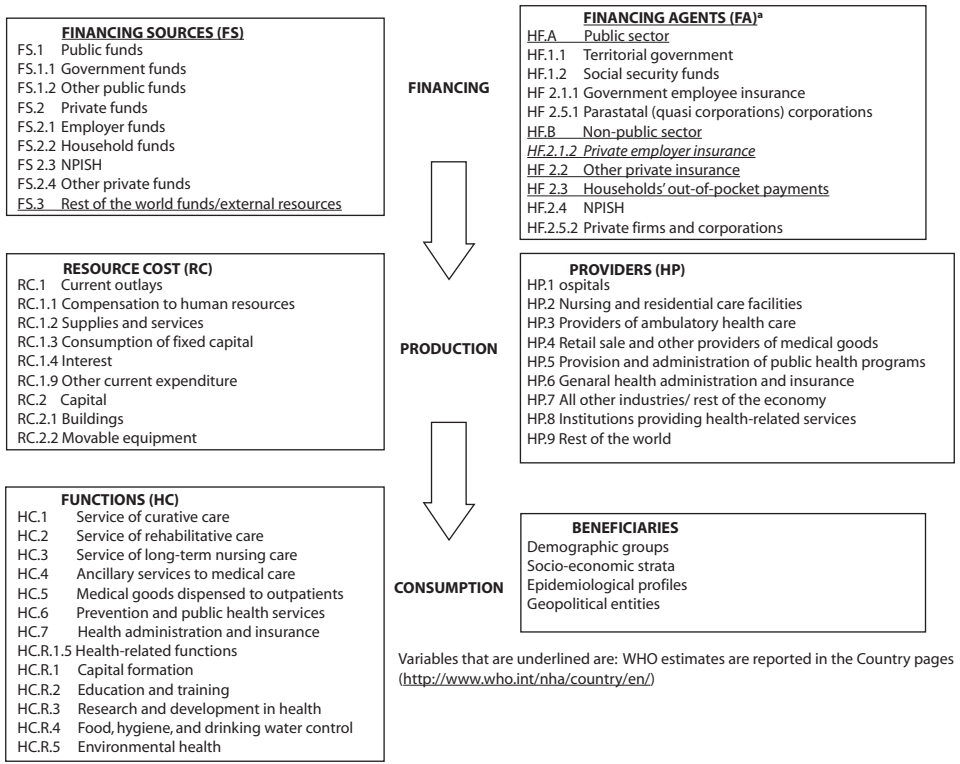
Financing sources are resources that enter initially into the health system for health goods and services, whether from tax-based, social security, other private entities such as firms, nongovernmental organizations (NGOs), households, or other entities (principally funding from external resources).

Financing agents are institutions receiving and managing funds from financing sources to pay for or purchase health goods and services, including social security schemes, ministries of health, medical private insurance, NGOs, and firms. Households, which bear a large share of the total health bill, are added to round up to total expenditure, although they do not exert an intermediary function.

Providers are entities that receive financial resources and use those resources to produce health goods and services. They including public and private hospitals, clinics, nursing homes, community health centers, private practices, and others.

Functions are the categories of goods and services consumed, including inpatient services, ambulatory services, public health interventions, and so forth. Health-related functions, part of the total, refer to investment, training, and research and development (R&D).

Figure A.1 Financing Flow in the Health System



Source: WHO, http://www.who.int/nha/what/en/index.html.
Note: NPISH = Non-profit institutions serving houselds.
a. WHO accounts for "Expenditures by the Rest of the World" (HF3 as per the International Classification of Health Accounts) under General government expenditure on health and Private expenditure on health.

Cost of factors of production (often referred to as "line items") are the types of resources allocated to health care, including variables such as labor, drugs and pharmaceuticals, medical equipment, and so forth.

Beneficiaries are defined through distributional tables in which the value of goods and services produced are classified according to geographic boundaries, demographic characteristics, economic strata, and disease categories and interventions.

An Overview of a System of Health Accounts 2011

As demands from analysts and policy makers for more comparable, more detailed, and more policy-relevant health expenditure and financing information increase, more countries implement and institutionalize health accounts. Health accounts provide a systematic description of the financial flows related to the consumption of health care goods and services.

What Is the System of Health Accounts?

- A System of Health Accounts (SHA) is a statistical framework for presenting NHA results in an internationally comparable manner. It provides a standard framework for producing a set of comprehensive, consistent, and internationally comparable health accounts to meet the needs of public and private sector health analysts and policy makers. The SHA manual establishes a conceptual basis of statistical reporting rules that are compatible with other economic and social statistics. Furthermore, it provides an International Classification for Health Accounts (ICHA) across different dimensions of the health system.
- The Organisation for Economic Co-operation and Development (OECD) produced its first *A System of Health Accounts* manual in 2000 to establish an internationally accepted common statistical framework that would allow comparisons of health accounts data across countries.

How do National Health Accounts and the System of Health Accounts Framework Differ?

- The NHA tool is a generic methodology for health expenditure tracking and does not suggest any particular statistical framework. Historically, NHA estimates were produced using accounting categories and boundaries that reflected the particular structure of the national health

systems; they were not necessarily comparable across countries. Since the introduction of *A System of Health Accounts* by OECD (2000), almost all OECD member countries now report their NHA numbers using the SHA statistical framework. Although many non-OECD countries continue to produce NHA data using their own classifications, an increasing number are beginning to apply the same statistical framework for international comparability (some countries conduct dual reporting—presenting one report according to local classifications and the other according to SHA for international purposes).

- As a statistical framework, SHA does not provide guidance on how to collect data or to calculate the numbers. To fill this methodological gap, the World Bank, WHO, and the U.S. Agency for International Development (USAID) (2003) led the work on the *Guide to Producing National Health Accounts*. This NHA producer's guide was developed primarily to give producers of health accounts a step-by-step approach to collecting and calculating the numbers. It should be emphasized that the NHA producer's guide does not offer an alternative statistical framework to SHA; in fact, the guide endorses SHA as the statistical format for international comparison, and it follows the same guiding principles as the SHA.

Why Was a Revised System of Health Accounts Manual Necessary?

- Across the globe, health systems have been constantly changing and evolving with the introduction of new technologies, organizational reforms, and demographic changes. The demands on the SHA have also been changing over the years.
- *A System of Health Accounts 2011* is the result of a four-year collaborative effort between OECD, the European Commission, and WHO, and attempts to update the SHA to better meet the evolving needs and demands from a wide range of countries (OECD, Eurostat, and WHO 2011). The 2011 SHA manual takes into account the range of health care systems around the globe, with very different organizational and financing arrangements.
- It has been prepared following an extensive consultation process, with hearings held in all regions of the world.
- It brings together the original SHA manual with methodological work of the NHA producer's guide into a single framework to enable users to track resource flows through the health system from sources to uses.

How Will the 2011 SHA Manual Be Used?

- Essentially, the 2011 SHA manual is a statistical reference manual, setting out in detail the boundaries, the definitions, and the concepts and responding to all health systems around the globe—from the simplest to the more complicated.
- It is not a set of guidelines for producing health accounts, and, critically, it does not prescribe the level of detail of data that should be collected. Rather, the manual should be used as a reference and as a source of definitions to help statisticians facing particularly complex issues.
- As with any statistical manual, countries will find different aspects of it more useful than others. Each country can apply parts that are most relevant to its own circumstances and can adapt the application to its individual needs and capacities.

Is the 2011 SHA Manual Complicated?

- Efforts have been made to ensure that the 2011 SHA manual is considerably clearer than the 2000 version. Many concepts have been clarified, and many examples have been included.
- It follows exactly the same approach as the previous version, in that it is built around the three dimensions of health functions, health providers, and health financing.
- It is much longer than the previous manual because more materials have been added to cover the needs of health systems around the world—systems that have very different organizational and financing arrangements, including countries with complex health systems requiring finer and more detailed definitions and classifications. These additional features will not affect the vast majority of countries that do not require this level of detail.
- Pilot exercises by a number of countries have concluded that the new system does not pose any significant new mapping or implementation issues.

Does the 2011 SHA Manual Suggest a "One-Size-Fits-All" Approach to Data Collection?

- No. Different countries (and different data collections) will want to focus on what matters for their purposes.

- For instance, many analysts, and not exclusively those in lower- and middle-income countries, may view the tracking of sources of financing as an inherent part of the development of their countries' health accounts, whereas some higher-income countries may place a higher importance on estimating trade in health care or developing price and volume measures. The 2011 SHA manual will help accountants in both cases, but it does not require them to invest time and resources in doing something that is, at best, marginally relevant.
- It is intended as a reference guide and a flexible toolkit for health accountants.

Are New Guidelines for Using the 2011 SHA Manual also Needed?

- Yes. New guidelines for compiling consistent overall health expenditures, including lighter and more rapid methodologies for capacity-constrained countries, are necessary. The health care financing framework allows for a systematic assessment of how finances are mobilized, managed, and used. Accounting tools would allow for improved resource tracking, both with domestic financing and with external aid, and mapping provides an important link to already established statistical collections on aid flows (the OECD Creditor Reporting System database).
- Similarly, further guidance for producing disease-specific accounts within the overall health expenditure framework is seen as a priority, with resources dedicated to pilot projects in more low-income, high-aid countries.

Notes

1–5. See WHO, "What Are National Health Accounts (NHA)?" http://www.who.int/nha/what/en/index.html.

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APPENDIX B

NHA Toolkits

To help countries improve and institutionalize the National Health Accounts (NHA) cycle, countries, development partners, and agencies are working together to develop tools to facilitate countries' NHA activities. The tools, introduced below, assist in assessment, planning for NHA institutionalization, improvement of data collection and translation, and use of data in policy making.

Planning

Country Planning Tool Examples

Several countries have developed long-term institutionalization plans for their NHA activities that are based on the framework of NHA cycles. This section introduces a sample structure and work plan format to help countries see how they can structure the institutionalization plan.

Sample structure of a country's institutionalization strategy

Introduction

Global context

- Introduce the context of resource-tracking initiatives; that is, national and international demands for greater accountability, transparency, or

specific targets (for example, health insurance reforms, Millennium Development Goals, and tracking of results for maternal and child health).
- Adjust the NHA cycle of activities to align with a given country's context and priorities, including demand for data by country leaders; production of NHA data; dissemination and translation of NHA data; use of NHA data for policy decisions; and governance structure, capacity, and finance as core elements that influence the performance of the cycle (figure B.1).

Country context

- Describe a brief history, the challenges, and the progress of NHA institutionalization in the country.
- Analyze the current situation along the framework—including governance structure, capacity, and financing perspectives—to identify key issues:
  - Use and demand for policy making
  - Production (data collection, data management, and validation)
  - Dissemination
  - Translation of data

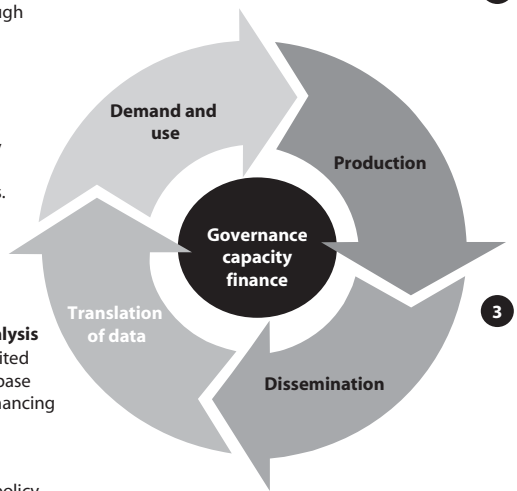
Institutionalization plan
Goals of institutionalization

- Define broad goals of NHA institutionalization with a target time frame.

Objectives and actions toward institutionalization

- Develop objectives and an explicit action plan for each element and process of the cycle of NHA activities, as in the following example of a country starting up NHA (see tables B.1 and B.2):
  - Establish the national NHA governance structure.
  - Develop core technical capacities in-country for production and use of NHA data.
  - Undertake at least one full round of the NHA cycle, and prepare a plan for more regular updates.
  - Integrate key aspects of NHA data collection into routine information systems, including national surveys.

Figure B.1 Framework for Institutionalization of National Health Accounts



1 Demand and use

- As country leaders make tough trade-offs to ensure an equitable and efficient allocation of scarce health resources, there is a critical need for an evidence base.
- Regular use of NHA in policy making contributes to more sophisticated policy analysis.

2 Production, data management, and quality assurance

- sustainable production of data remains a major challenge in many countries, but capacities to produce health accounts have grown significantly in the developing world over the past decade.

3 Dissemination

- Making the collected data available for analysis enhances transparency and, with experience, analysis and insights that inform policy.
- In countries that have institutionalized NHA, data are widely disseminated.
- Dissemination takes place on two occasions: (1) when the NHA tables have been produced and (2) after the data have been translated into policy-relevant briefs.

4 Translation of data and dissemination of specific analysis

- The value of NHA data is limited unless used as an evidence base for more informed health financing decisions.
- Country ownership of the translation process allows countries to champion key policy insights, increasing the likelihood that the answers NHA data provide will be used to affect policy.

Source: The World Bank.

Table B.1 Sample Five-Year Institutionalization Work Plan for Translation of NHA Data

Subobjective 1: Build Capacity at NHA Team to Analyze Data																			
	Year1				*Year 2*				*Year 3*				*Year 4*				*Year 5*			
Activity	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*
1. Train NHA team on data analysis.																				
2. Train NHA team on health financing.																				
Subobjective 2: Conduct NHA Analyses																				
1. Establish technical committee.																				
2. Develop method to conduct study.																				
3. Conduct analyses.																				
4. Prepare draft report.																				
5. Discuss with steering committee, and finalize report.																				
6. Prepare policy brief.																				

Source: Authors based on lessons learned from country workshops.
Note: NHA = National Health Accounts; Q = quarter.

Table B.2 Sample Five-Year Work Plan for Dissemination of NHA Data

Subobjective 1: Develop NHA Website																				
	Year 1				*Year 2*				*Year 3*				*Year 4*				*Year 5*			
Activity	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*
1. Form a committee on website design.																				
2. Prepare website design specifications.																				
3. Create a website.																				
4. Maintain and update the website.																				
Subobjective 2: Organize Dissemination Events																				
1. Hold annual NHA Workshop.																				
2. Arrange periodic TV interviews about health spending (once a quarter).																				
3. Prepare annual press release on NHA findings.																				
4. Hold meetings with users to discuss NHA findings in regular planning and budgeting meetings.																				
Subobjective 3: Distribute NHA Report and Findings																				
1. Distribute NHA report to broad range of stakeholders.																				
2. Distribute and present policy briefs to policy makers.																				
3. Distribute technical reports to research institutes and ministries.																				

Source: Authors based on lessons learned from country workshops.
Note: NHA = National Health Accounts; Q = quarter.

- Demonstrate the value of NHA data to policy makers through specific policy-related analyses.
- Effectively disseminate and communicate NHA findings to enhance their use.

Arrangement of governance structure

- Choose a governance model:
  - Analyze strengths and challenges of each model in a country-specific context.
  - Explore approaches to preempt the challenges of the selected model.
- Define members, roles, and responsibilities of the following:
  - Policy advisory group
  - Coordinating body
  - Technical consultative group

Detailed activities to achieve each objective

- Develop key activities to achieve the defined objectives.

Financing plan for the next five years

- Estimate the cost of each activity.
- Define the cost sharing between a country and development partners (who pays what, how much).

Country Assessment Tool

The World Bank's Country Readiness Tool has been developed to test constraints and assess country readiness for NHA institutionalization.[1] The tool is structured on the basis of specific components of NHA institutionalization: governance structure, resources (financial and human resource), data sources and collection, data management, data quality and validity, products and indicators, and data dissemination and use. Assessments using the tool will help build a strategic plan for NHA institutionalization, with the goal of increasing the availability, quality, value, and use of timely and accurate health information.

Objectives. The tool incorporates the following objectives:

- Support countries in identifying major constraints to NHA institutionalization.

- Provide information for baseline and follow-up evaluation.
- Inform stakeholders about aspects of the NHA Health Information System with which they may not be familiar.
- Build a consensus to strengthen components important for institutionalization.
- Mobilize joint technical and financial support for implementation of a strategic plan that identifies priority investments during the short term (1–2 years), medium term (3–5 years), and long term (10 years).

Methodology. Each element is analyzed with the help of questions that have been identified on the basis of findings from case studies, interviews with stakeholders, and pilot workshops (figure B.2). This tool can be best used in a workshop organized with various stakeholders.

Results. The tool will yield critical inputs regarding areas of weakness for the pilot countries and subsequently inform the institutionalization work plans. Summary results from Mali are presented in figure B.3.

Sample Indicators to Measure NHA Institutionalization

A set of qualitative and quantitative indicators are set out in table B.3, which have been developed to assess the NHA institutionalization status of a country. The indicators are structured according to four criteria of NHA institutionalization, based on literature reviews and interviews. If deemed useful to do so, countries can use the indicators as a checklist to assess the stage they have reached in the process of institutionalization and to identify any areas they could further strengthen.

Production and Translation

National Health Accounts Production Tool

The NHA Production Tool is a software tool being developed by the Health Systems 20/20 project, funded by the U.S. Agency for International Development (USAID), with input and support from key NHA stakeholders, including the World Health Organization (WHO) and the World Bank. The tool aims to lessen the complexity of the NHA exercise by providing step-by-step guidance to in-country NHA teams, thereby reducing the need for technical assistance, increasing local capacity for NHA production, and capturing cost-efficiency (Health Systems 20/20 2011b).

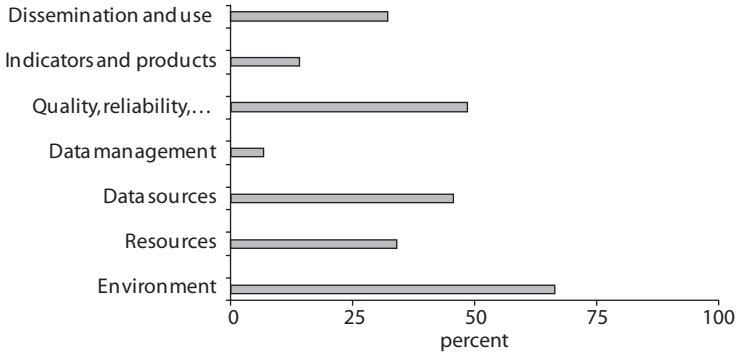
Figure B.2 Example of Assessment Sheet for Dissemination and Use

VII.	Use and Dissemination													
a.	Analysis and use of the information													
	Items	Fully satisfactory	Satisfactory	Exists, but not satisfactory	Unsatisfactory	Comments	Responses							Average
							1	2	3	4	5	6	7	
		3	2	1	0									
VII.a.1	Graphs are often used to present the health expenditure data	Yes	Yes, graphs are used, but users do not understand them well	Some graphs are used, but they are not updated	No graphs are used									#DIV/0!
VII.a.2	Maps are used to present the health expenditure data	Yes	Yes, maps are used, but users do not understand them well	Some maps are used, but they are not updated	No maps are used									#DIV/0!
VII.a.3	The unit responsible for the NHAs does detailed analyses that answer important questions [In the comments section, please specify who demanded the analysis]	Yes, strategic planning and development policies are based on data in the NHAs	The unit responsible for the NHAs regularly provides information, but the detailed analysis does not usually contribute to policy planning and development	The unit responsible for the NHAs provides information, but it is not regular or timely for policy planning and development	No information is provided									#DIV/0!
VII.a.4	Decision makers use health expenditure information to evalute system performance and set priorities	There is systematic use of health expenditure information, which is accepted as valid and reliable	Health expenditure information is often used, but there are concerns about its validity and reliability	Health expenditure information is rarely used	Health expenditure information is not used									#DIV/0!
VII.a.5	Health expenditure indicators are related to short, medium, and long-term goals In the comments section, please specify which framework is used and where the goals are taken from (e.g. MDGs objectives or CAS)	All indicators are related to relevant goals	40%-80% of the health expenditure indicators are related to specific goals	Less than 40% of the health expenditure indicators are related to specific goals	Health expenditure indicators are not linked to specific goals									#DIV/0!
VII.a.6	There is a record of requests for health expenditure information	Yes, there is a record of information requests, and the breakdown of annual information is improved on the basis of the requests	Yes, there is a record of information requests, but it is not used to improve the breakdown of the information	The record of requests is haphazard and not used	There is no record of requests for information									#DIV/0!

IV. Data mgmt. | V. Quality | VI. Products & Indicators | VII. Dissem. & use | Summary Results | Summary Comments | Sheet1

Source: World Bank, "Country Readiness Tool." http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTHEALTHNUTRITIONANDPOPULATION/EXTHSD/0,,contentMDK:22668361~menuPK:376799~pagePK:148956~piPK:216618~theSitePK:376793~isCURL:Y,00.html.

Figure B.3 Example of Results of an Assessment Tool for Mali



Source: World Bank, "Country Readiness Tool." http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTHEALTHNUTRITIONANDPOPULATION/EXTHSD/0,,contentMDK:22668361~menuPK:376799~pagePK:148956~piPK:216618~theSitePK:376793~isCURL:Y,00.html.
Note: The percentages demonstrate the assessment of achievement in each component. High scores mean higher achievement in the component. The component with the lowest score can be regarded as the bottleneck.

Key functions of the tool include the following:

- Step-by-step directions to help guide country teams through the NHA methodology
- Platform to manage complex data sets and reduce the burden of data management
- Survey creator and an import function to streamline the data collection and data analysis processes
- Built-in auditing function to facilitate review, and correct for possible double counting
- Report generator for simplified NHA table creation
- Interactive diagram feature to help NHA teams visualize and critically analyze the flow of funding through the health sector

The tool was pilot tested in Tanzania in August 2011 (see figure B.4). The NHA Production Tool is expected to be publicly available on WHO's website in 2012.

Health Resource Tracker

The Health Resource Tracker is a Web-based tool that the government of Rwanda and the USAID-funded Health Systems 20/20 project are

Table B.3 Indicators to Measure NHA Institutionalization

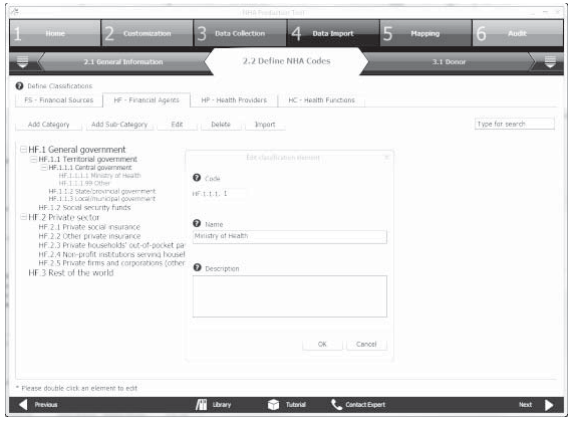
Criteria for institutionalization	*Key elements*	*Indicators*	*Type of indicator*
Consistent use of National Health Accounts (NHA) data	Data are effectively disseminated, analyzed, and used.	Collected data are available publicly on website.	Binary
		NHA data are analyzed, and policy-relevant information is produced.	Binary
		NHA data are used for reporting health expenditures in government documents every year.	Binary
		NHA information is used to inform at least one of the following government priorities every year: health policy, budgetary planning, financial sustainability, resource tracking, transparent funding, and efficiency and equity of health spending.	Binary
Adequate financial, human, and institutional capacity to routinely produce, disseminate, analyze, and use health accounts	NHA are government mandated, and local capacity exists.	Law, regulation, or decree mandates production and use.	Binary
		Institutional home[a] is identified for NHA activities.	Binary
		Government budget is earmarked for NHA activities.	Binary
		Skills to produce, analyze, and use health accounts information are adequately available in the country.	
Consistent production of NHA data	NHA production is a regular or routine activity; that is, NHA are produced regularly and data are reported annually.	Public expenditure data are collected and compiled annually.	Binary
		Private expenditure data (such as household health expenditures) are collected at least once every five years and estimated annually.	Binary
	Minimum set of internationally accepted data is produced.	Key health expenditure indicators are produced and reported annually.	Binary
Use of health accounts methodology	An internationally accepted methodology is applied consistently.	Data are consistent with NHA boundary definition.	Binary
		Local classifications are mapped to NHA classifications.	Binary

Source: Authors' analysis.

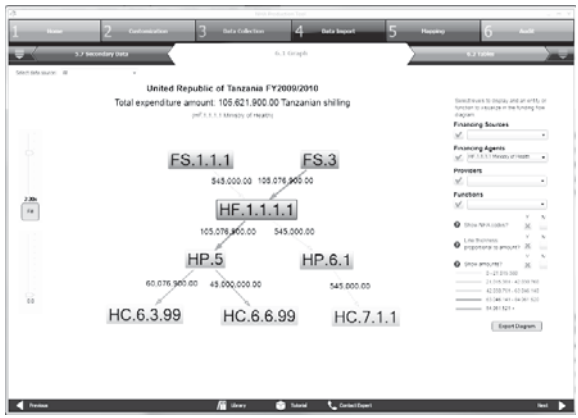
a. "Institutional home" is the government agency primarily responsible for production of health accounts.

Figure B.4 Snapshot of the NHA Production Tool

a. Coding



b. Fund flows



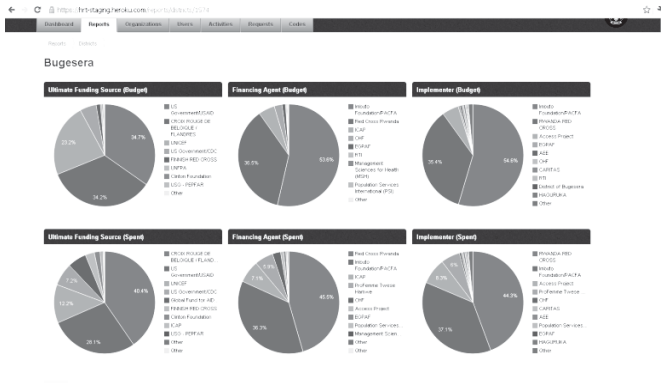
Source: Rwanda Health Resource Tracker, https://resourcetracking.heroku.com/.

building in collaboration with other stakeholders in Rwanda (figure B.5). The tool aims to streamline the collection of detailed health spending information from government agencies, donors, and nongovernmental organizations active in the health sector and to efficiently inform NHA policy (Health Systems 20/20 2011a; Rajkotia et al., forthcoming).[2] The tool reduces the burden of reporting and analyzing surveys; builds analytical links between different resource tracking exercises (for example, between NHA systems and the National AIDS Spending Assessment) to

Figure B.5 Example of Health Resource Tracker and Data

a. Tool

b. Data



Source: Rwanda Health Resource Tracker, https://resourcetracking.heroku.com/.

improve policy effect and use; and creates a permanent home for resource tracking data.[3] The tool was developed in Rwanda and is now being transferred to Kenya.

Key features of the tool include the following:

- A dynamic and flexible user interface that donors, nongovernmental organizations, and government agencies can use to report budgeted and realized expenditures as well as activity descriptions for their health programs

- Low-maintenance and user-friendly site administration that allows the government to collect and store annual budget and spending data more efficiently than with paper surveys
- Effective reporting features that are tied to country priorities and facilitate broad access to data for relevant stakeholders
- Customized data reporting that can inform resource-tracking estimations, such as NHA activities
- Open-source code that can be further refined in the future and adapted to suit the needs of other countries

Sample List of Basic Indicators in NHA

Table B.4 includes a collection of basic indicators often used in NHA efforts, as recommended by *A System of Health Accounts 2011*, or SHA 2011 (OECD, Eurostat, and WHO 2011, chapter 15). Countries can use this list to begin building the data format for NHA and collecting the essential data and then building a more detailed list depending on their available resources.

Table B.4 Basic NHA Indicators from SHA 2011

Thematic area	*Indicator (% of THE)*
Expenditures on health care by financing scheme	*Governmental schemes and compulsory contributory health financing schemes* 1. Governmental schemes 2. Compulsory contributory health insurance schemes 3. Compulsory Medical Savings Accounts (CMSA) *Voluntary health care payment schemes* 4. Voluntary health insurance schemes 5. "Nonprofit institutions serving households" (NPISHs) financing schemes 6. Enterprises financing schemes *Household out-of-pocket payment* 7. Out-of-pocket excluding cost sharing 8. Cost sharing with third-party payers *Rest of the world financing schemes (nonresident)* 9. Compulsory schemes (nonresident) 10. Voluntary schemes (nonresident)
Expenditures on health care by revenues of financing scheme	*Transfers from government domestic revenues* 1. Internal transfers and grants 2. Transfers by government on behalf of specific population groups 3. Subsidies 4. Other transfers from government domestic revenue

(*continued next page*)

Table B.4 *(continued)*

Thematic area	*Indicator (% of THE)*
	Transfers distributed by government from foreign entities
	Social insurance contributions
	5. Social insurance contributions from employees
	6. Social insurance contributions from employers
	7. Social insurance contributions from self-employed
	8. Other social insurance contributions
	Compulsory prepayment
	Voluntary prepayment
Expenditures on health by financing agent	*General government*
	1. General government expenditures on health
	2. State, regional, local government expenditures on health
	3. Social security agency expenditures on health
	4. All other general government units expenditures on health
	Insurance corporations
	5. Commercial insurance companies expenditures on health
	6. Mutual funds and other nonprofit insurance entities expenditures on health
	Corporations other than insurance corporations
	7. Health management and provider corporations expenditures on health
	8. Corporations (other than providers of health services) expenditures on health
	Nonprofit institutions serving households (NPISHs)
	9. Out-of-pocket expenditures on health
	Rest of the world
	10. International organizations expenditures on health
	11. Foreign governments expenditures on health
	12. Other foreign entities expenditures on health

Source: Authors based on OECD, Eurostat, and WHO 2011.
Note: THE = total health expenditure.

Suggested Additional Questions for Demographic and Health Surveys

In the Health Systems 20/20 project, Carlson and Glandon (2009) proposed that by adding the following questions to a section of the household questionnaire, demographic and health surveys could provide a complete substitute for the household survey usually conducted as part of the NHA analyses (see figure B.6).

Figure B.6 Example of Health Systems 20/20 Revisions to Demographic and Health Surveys

	Questions to ADD	
Type and number of Questions	**Questions**	**Estimate % of respondents**
General question	Was <name> ill or injured in the last four weeks? (Y/N)	100%
Outpatient screening questions	Did <name> visit/consult a health provider (including pharmacy/chemist and traditional healers) in the last four weeks without staying overnight in the facility? (Y/N)	100%
Outpatient questions	Did <name> have more than one visit in the last four weeks? *(Interviewer: If <name> had more than one visit in the last four weeks, ask the following questions about each visit. Repeat for all other member of the household)* What was the type of the health provider that <name> visited? *(See Provider Codes table below)* How much money did <name> spend on treatment/ services received?	14%
	What were the MAIN health reason for <name> seeking care? *(See Symptom Codes table below)*	16%
Inpatient screening question	Was any member of the household admitted to stay overnight at a medical facility during the last 6 months? If yes, ask the questions below for each admission.	100%
Inpatient questions	Did <name> have more then one visit in the last 6 months? (Y/N) *(Interviewer: If <name> had more than one visit in the last 6 months, ask the following questions about each visit. Repeat for all other members of the household)* What was the type of health provider that <name> visited? *(See Provider Codes table below)* How much money did <name> spend on treatment/services received? What were the MAIN health reasons for <name> seeking care? *(See Symptom Codes table below)*	< 3%
Prevention/health maintenance question	Apart from the health expenses from the medical visits you told me about, how much did all members of your household spend on health and health- related commodities in the last four weeks (e.g. routine medication, family planning commodities and services (condoms, pills, etc.), ORS, vitamin supplements (e.g. cod liver, oil, etc.)?	

(continued next page)

Figure B.6 *(continued)*

PROVIDER CODES		
Public Sector 1) Govt. hospital 2) Govt. health center/clinic/ post 3) Gov. dispensary 4) Public pharmacy/chemist 5) Govt. nursing/maternity home 6) Govt. community-based health worker (incl. TBA, CHW) 7) Other	Private not-for profit (NGO incl. faith-based) sector: 8) NGO hospital 9) NGO health center/clinic/post 10) Govt. nursing/maternity home 11) NGO community-based health worker 12) Community pharmacies (Bamako) 13) Other	Private for-profit sectors: 14) Private hospital 15) Private clinics 16) Private doctors/nurses/midwife 17) Company/parastatal clinic 18) Private pharmacy/shop/mobile vendor 19) Private laboratory 20) Traditional healer 21) Other

Source: Carlson and Glandon 2009.

They also proposed the modification of the questions on children less than five years of age to capture sufficient health expenditure information to inform child health subaccounts of NHA (see figure B.7).

ADePT Software for Economic Analysis

ADePT, the Software Platform for Automated Economic Analysis, is a free program designed to simplify and speed up the production of analytical reports. Created by the Development Research Group of the World Bank, it can be used to generate summary tables and charts from microlevel surveys and present them in a print-ready form. ADePT can generate sets of about 50 print-ready tables and graphs in different areas of economic analysis, including the health sector.[4]

ADePT helps minimize human errors and facilitate effective translation of NHA and survey data into policy analysis. The functionalities of the Benefit Incidence Analysis component of the health module include the following (Wagstaff, Bales, and Bredenkamp 2011):

- Production of tables showing the distribution across living-standards groups (for example, quintiles of per capita consumption) of use (by subsector) and subsidies (by subsector and in total)
- Computation of the concentration indexes for subsidies for each subsector and for total subsidies
- Generation of charts showing the concentration curves for subsidies for each subsector and for total subsidies

Box B.1 shows an example of the use of ADePT in Vietnam and Zambia.

Figure B.7 Example of Health Systems 20/20 Project Revisions to Child Health Data

Change	Add item 546A "[In addition to the illness you just described] has <NAME> had any other illness or injury at any time during the last two weeks?"
Respondents	All children under the age of 5
Rationale	National Health Accounts are based on total spending. In addition, analysis of access to care is more powerful.
Change	[If yes to item 546A, add] "What sort of sickness/injury did <NAME> suffer?" Pain in back, limbs, or joints Skin problems Ear, nose, or throat Eye Dental Accident Other
Respondents	Children under 5 with additional illness. In the most recent kenya household survey, this is 1.7% of children.
Rationale	This item converts a partial description of illness to a total description with minimal impact on respondent burden.
Change	Add item "What was the type of the health provider that <NAME> visited? (Including chemists and traditional healers) [modify list as nationally appropriate].
Respondents	Children under 5 with health care visits. Typically, this is about 5% to 10% of children who had an additional illness (or only up to about 0.2% of all children).
Rationale	NHA tables are indexed by economic sector.
Change	Add item "How much money did <name> spend on treatment/ services received?"
Respondents	Children under 5 with health care visits.
Rationale	Dependent variable for NHA.

Source: Carlson and Glandon 2009.
Note: NHA = National Health Accounts.

Box B.1

Use of NHA Data to Inform Benefit Incidence Analysis and Assess the Progressivity of Health Care Payments through ADePT

Although it is generally accepted that government health expenditures should disproportionately benefit the poor, in practice, in most developing countries the opposite is the case. However, there are exceptions, such as Malaysia, Sri Lanka, and Thailand. Together with NHA data and other sources, benefit incidence analysis (BIA) has been conducted using the World Bank's ADePT tool

(*continued next page*)

Box B.1 *(continued)*

in the contexts of Vietnam and Zambia. BIA tries to allocate government health expenditures across households to see whether it is the poor or the better-off who benefit disproportionately. NHA analyses are one of two data sources used to conduct BIA, the results of which have been used to translate data into insightful analysis that informs policy.

For example, a recent study by Wagstaff (2010) uses household survey data and NHA data to analyze the benefit incidence of health sector subsidies in Vietnam, exploring the sensitivity of the results to different assumptions about the link between the unit cost of government-provided services and patients' out-of-pocket payments. In Vietnam, subsidies emerge as pro-rich under most assumptions, but they are more pro-rich if higher out-of-pocket payments are assumed to reflect more costly care. Wagstaff's study uses government health expenditures from NHA data in conjunction with household survey data to conduct the BIA (box figure B.1.1).

In Zambia, ADePT has been used to determine the extent to which government expenditures for health disproportionately benefit the poor (often a goal for policy makers in the health sector) In Zambia, 63.4 percent of government subsidies are spent on inpatient care in public hospitals, 30 percent are spent on outpatient care in these hospitals, and 7.1 percent are spent on health centers and health posts. Taken together, these BIAs show that government spending on health seems to favor the poor, especially at the lowest level of outpatient care, but the results do depend on the assumptions invoked.

In Zambia, the progressivity of health financing was analyzed using ADePT. Health care payments are considered progressive if the poorest quintile's share in total household consumption exceeds its share in total payments, whereas the opposite is true of the richest quintile. In 2006, health care financing in Zambia was fairly progressive. The financing sources that contribute to the overall progressivity of health care financing are general taxation, which finances 42 percent of domestic spending on health, and contributions made by private employers, which finance 9 percent of spending. An additional contribution to overall progressivity is made through prepayment mechanisms, but this remains fairly limited given that they only represent 1 percent of total health finance. Out-of-pocket health payments are proportional to income, with only slight and not

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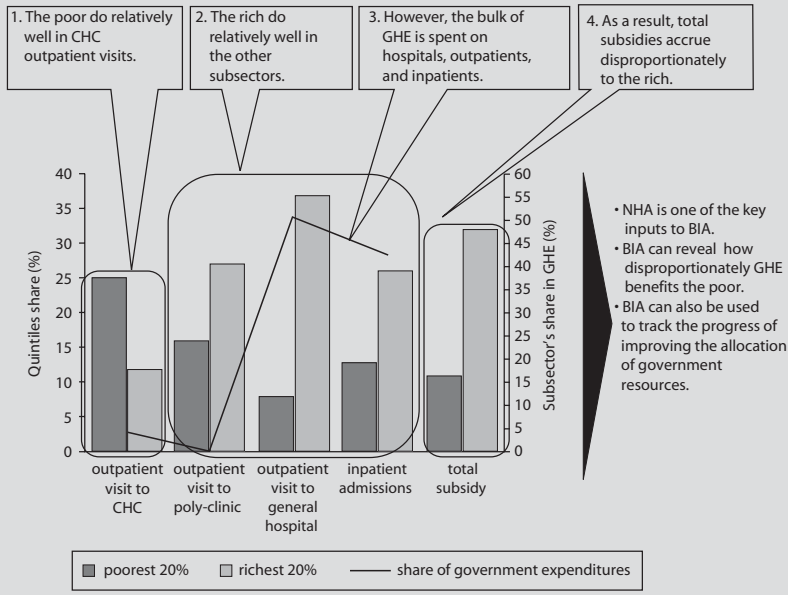
Box B.1 *(continued)*

Box Figure B.1.1 BIA Using NHA as an Input Can Reveal and Track the Disproportionate Allocation of Government Expenditures



Note: BIA = benefit incidence analysis; CHC = community health center; GHE = government health expenditure; NHA = National Health Accounts; OP = outpatient.

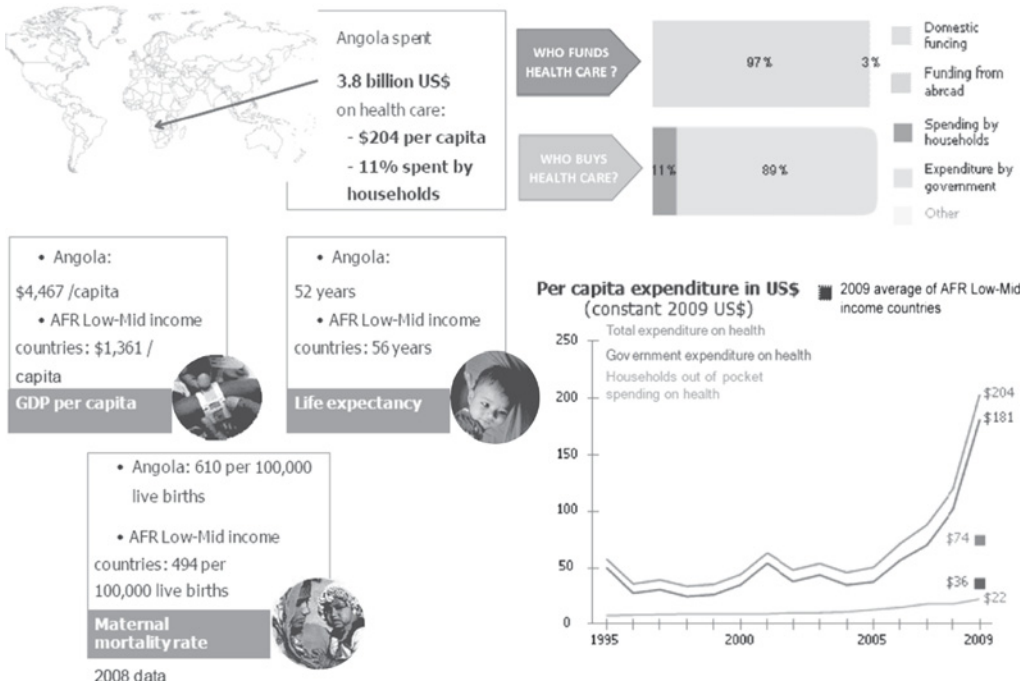
statistically significant evidence of progressivity. Given the considerable share of prepayment mechanisms as a financing source (47 percent), it offsets part of the progressivity of taxation and employer contributions, roughly halving their overall progressivity.

Sources: Bredenkamp et al. 2011; Wagstaff, Bales, and Breden kamp 2011.

Health System Financing Profile

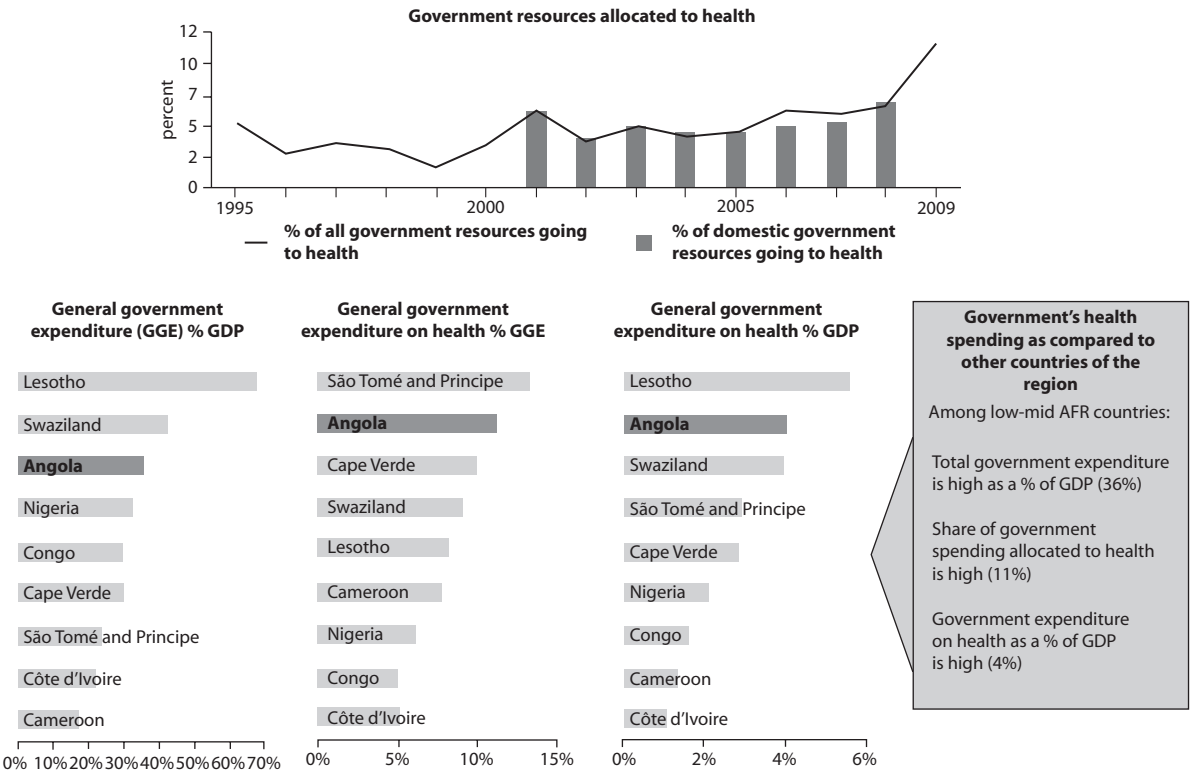
WHO has recently launched an online Global Health Expenditure Database that permits easy access to the totality of NHA information. The tool allows for quick cross-national comparisons, country-specific summary statistics, and a variety of easy-to-produce figures and reports on health expenditures, including the Health System Financing Country Profile (see figures B.8 and B.9).

Figure B.8 Example of the Health System Financing Country Profile: Angola, 2009



Source: WHO Global Health Expenditure Database, http://apps.who.int/nha/database/ChoiceDataExplorerRegime.aspx.
Note: AFR = Africa; GDP= gross domestic product; Low-Mid = low-middle.

Figure B.9 Example of NHA Indicators for Angola



Source: WHO Global Health Expenditure Database, http://apps.who.int/nha/database/ChoiceDataExplorerRegime.aspx.
Note: AFR = Africa; GDP= gross domestic product; Low-Mid = low-middle; NHA = National Health Accounts.

Notes

1. World Bank, "Country Readiness Tool." http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTHEALTHNUTRITIONANDPOPULATION/EXTHSD/0,,contentMDK:22668361~menuPK:376799~pagePK:148956~piPK: 216618~theSitePK:376793~isCURL:Y,00.html.

2–3. Rwanda Health Resource Tracker, https://resourcetracking.heroku.com/.

4. Ihssane Loudiyi, "ADePT: A Great Software for Data and Analytical Reports," *Growth and Crisis* (blog), November 4, 2009. http://blogs.worldbank.org/growth/adept-great-software-data-analytical-reports.

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APPENDIX C

Other Documents

Literature Review on NHA Institutionalization

Table C.1 presents a compilation of studies, which have examined progress on National Health Accounts (NHA) institutionalization in various regions, and the list of elements considered in each case to assess the level of institutionalization.

Survey Questionnaire for the World Bank Survey on Costs of Health Accounting, 2010

The survey questionnaire begins as follows:

Thank you for taking the time to complete this survey designed by the Health Accounts Institutionalization Support Team of the World Bank. Your feedback is important to us to better support the countries in routinely producing and using health accounts information. This survey consists of 10 questions and should take 10 minutes of your time. Your answers will be completely anonymous. You may state approximate figures if you are not sure of precise costs. If you have any questions, please contact us (Charu Garg or Mahesh Shukla) at cgarg@worldbank.org or mahesh@gwmail.gwu.edu.

Table C.1 Analysis of Literature on NHA Institutionalization

Source	*Sponsoring organization(s)*	*Elements*	*Explicit definition of institutionalization*
Bura, Mark. 2003. "Institutionalization of National Health Accounts in ECSA: Progress Report." Paper presented at the Third International NHA Symposium, San Francisco, CA, June 13–14.	Commonwealth Regional Health Community for East, Central, and Southern Africa	Training and mobilizing resources for NHA Policy makers sensitized Government decision made to conduct NHA NHA committee exists NHA a budget line item Number of NHA committee meetings NHA lead person in place Resources for NHA available Number of national workshop attendees Number of regional workshop attendees First NHA conducted and disseminated Second NHA undertaken NHA impact on policy demonstrated Tools for NHA data analysis adopted Household surveys undertaken	Yes
Center for Global Development 2005. "Following the Money in Global Health." Global Health Policy Research Network, Center for Global Development, Washington, DC.	Bill and Melinda Gates Foundation/Center for Global Development	Adoption of standard methodology Production of National Health Accounts (NHA) on regular basis Availability of capacity to produce NHA Availability of resources Political will to produce NHA Coordination among development partners Comprehensiveness of NHA Coverage of public and private sectors Accuracy of NHA data Timeliness for reporting and dissemination of NHA	No

Glenngård Anna H., Frida Hjalte, and Catharina Hjortsberg. 2006. "National Health Accounts—Developments, Institutionalization, and Policy Implications: Selected Papers from IHE Studies." Swedish Institute for Health Economics, Lund, Sweden.	Swedish Institute for Health Economics (IHE)	Participation in NHA regional networks Information campaigns about NHA Capacity-building needs Sources of financing for NHA activities Composition of country teams Analysis and international comparisons Formation of NHA "communities" Use of NHA Constraints in financial and human resources Role of development partners Integration with national statistical systems and SNA	Yes
Hjortsberg, Catharina. 2001. "Where Are We Today?" Issue paper on National Health Accounts, Document 6, Sida Health Division, Swedish International Development Cooperation Agency, Stockholm.	Swedish International Development Cooperation Agency (Sida)/IHE	Type of NHA methodology used Source of financing for NHA Housing of NHA Existence of a policy advisory group Participation in regional network Routinization of NHA production	No
Merino Juárez, Maria F., and Dorota A. Raciborska. 2008. "Institutionalization of Country Health Accounts: Conceptual Framework." U.S. Agency for International Development, Health Systems 20/20, Inter-American Development Bank, and the Health Metrics Network.	U.S. Agency for International Development (USAID) Health Systems 20/20, Inter-American Development Bank, Health Metrics Network	Demand for information Resources (human and financial) Environment (information policies and organizational structure) Indicators reporting Data sources Comprehensiveness, timeliness, and regularity of NHA production Rules for data administration and management Reporting on main indicators (timeliness, regularity, consistency, and coverage) Presentation, dissemination, and use of NHA data	Yes

(continued next page)

Table C.1 *(continued)*

Source	*Sponsoring organization(s)*	*Elements*	*Explicit definition of institutionalization*
OECD (Organisation for Economic Co-operation and Development). 2001. "The State of Implementation of the OECD Manual: A System of Health Accounts (SHA) in OECD Member Countries." Health Policy Unit, OECD, Paris.	OECD	Pilot implementation of SHA manual Full implementation of SHA manual Several standard SHA tables available for one year Availability of core SHA tables Availability of comprehensive and detailed national health accounts (as opposed to only part of NHA)	No
Raciborska, Dorota, Patricia Hernandez, and Amanda Glassman. 2008. "Accounting for Health Spending in Developing Countries." Health Affairs 27 (5): 1371–80.	Inter-American Development Bank/World Health Organization	At least one comprehensive NHA undertaken More than two NHA undertaken NHA with aperture for health Detailed health and social expenditure account (COFOG)	Yes
Fernando, Tharanga, and Ravindra P. Rannan-Eliya. 2005. "Status of National Health Accounts in Asia-Pacific Region: Findings from the APNHAN Survey 2005." Asia-Pacific National Health Accounts Network Regional Meeting, Colombo, March 31.	Asia-Pacific NHA Network	Number and regularity of NHA estimations Institutional responsibility for NHA Coverage/comprehensiveness of NHA Adoption of OECD methodology Source of financing for NHA activities	Yes

Source: Authors' compilation.
Note: COFOG = classification of the functions of government.

The term "National Health Accounts (NHA)" is used for health accounting at the national level and also includes System of Health Accounts (SHA) and Health Satellite Accounts (HSA) for the purpose of this survey.

- **Please answer these initial questions with regard to health accounting in your country.**
  1. Please name your country.
  2. What is the health accounting methodology used? (NHA/NHEA/SHA/HSA/any other)
  3. What was the approach used in building the last health accounts, top-down or bottom-up?
  4. When was the last NHA exercise done?
  5. How many NHA exercises have been done so far?
  6. How many years of NHA data are available?
     - **i. Who conducted the last health accounting exercise?** Government, national agency, or institute other than government or international entity
     - **ii. Please name the ministry or office of the government or the nongovernmental agency or entity that conducted the last NHA.**

- **What was the total cost of the last NHA exercise? You may give an approximate figure if you are not sure of the precise figure.**
  1. Cost and the name of local currency
  2. Cost in U.S. dollars
     - **i. Who paid the cost of the last NHA?** Government, development partner or donor, or part-government part-donor
     - **ii. If the government met the cost fully or in part, was it provided through the budget of the government? How much and what proportion of total cost?**

- **What are the major cost drivers of the national health accounting exercise?**
  1. Staff salaries and benefits
  2. Consultant costs
  3. Office costs
  4. Information technology costs
  5. Training costs
  6. Survey costs
  7. Dissemination costs

8. Number of the core NHA matrixes completed (FA × P, P × F, FA × F, FS × FA, FS × F, P × RC, FA × RC, others)
9. Whether the country has a centralized or a decentralized form of governance structure
10. Whether the data are collected for central- and regional-level analyses, or only for central-level analysis
11. Any other cost drivers. Does your country carry out surveys such as a household survey or provider survey, especially for health accounting purposes, or use a "piggy-backing on existing surveys" approach? Or both? You may offer additional comments on how to minimize NHA costs in general and survey costs in particular while maintaining quality.

- **Please give breakdown of total cost of the last health accounting exercise in U.S. dollars or local currency (please state the name of the local currency). If you are not sure of precise figures, please feel free to give approximate estimates.**
  1. Staff salaries and benefits
  2. Consultant fees and other costs
  3. Office space, equipment, materials, and furniture
  4. Information technology equipment and maintenance
  5. Travel costs
  6. Training costs
  7. Survey costs
  8. NHA dissemination costs
  9. Other costs

- **What is the total number of staff that worked on the last NHA?**
  1. Number of full-time staff
  2. Number of full-year part-time staff
  3. Number of part-year part-time staff
  4. Number of full-time consultants
  5. Number of part-time consultants

- Please give particulars of staff and consultants enumerated in the earlier question.
  i. **How many of them were statisticians, health economists, public health or health policy specialists, medical specialists, information technology specialists, data analysts, etc.?**
  ii. **You may also state if and how many were generalist civil servants.**

iii. Please, mention if and how many international consultants worked on the last NHA? For how long? What was the additional cost (in U.S. dollars or in local currency: please state the currency) of any subaccount your country ever did? You may give year of subaccount and approximate cost figure or percentage if you are not sure of precise figure.

1. HIV/AIDS
2. Malaria
3. Tuberculosis
4. Reproductive health
5. Child health
6. Subnational health accounts
7. Any other disease-specific account (please name the account and state the cost)

If your country health accounting exercise was ever supported by a donor or development partner, how much did it cost? Please compare this cost with the cost in the year when it was solely funded by your government. Please state the years and costs in U.S. dollars or local currency.

Survey Questionnaire for the World Bank Survey on Financing of Health Accounting, 2011

The survey questionnaire begins as follows:

Dear Sir or Madam,

We thank you for making the time to complete this survey. Your feedback during the global consultation in October 2010 enriched the draft *Strategic Guide for the Institutionalization of National Health Accounts*. The Strategic Guide provides an opportunity to take ownership of a journey toward sustainable and country-driven resource tracking by international standards. We hope our joint efforts will result in you implementing the necessary tools and capabilities successfully. A small group of countries will soon start drafting a financing strategy to provide guidance on the costing of implementation of NHA. Your response to this survey will provide crucial insights into your priorities and costing assessments.

The term "health accounts" includes National Health Accounts (NHA), System of Health Accounts (SHA), National Health Expenditure Accounts (NHEA), and Health Satellite Accounts (HSA) for the purpose of this survey. Should you have a question, comment, or concern, please

feel free to contact us (Margareta Harrit at mharrit@worldbank.org or Mahesh Shukla at mahesh@gwmail.gwu.edu).

1. **Countries conduct national health accounts to track resource allocation to their health sector and to achieve transparency, equity, and efficiency in their health spending. From the perspective of your country, what is the business case for institutionalizing health accounts?**
   - Ensures adequate funds for protecting public health
   - Is useful in tracking health funds
   - Helps meet demand for expenditure information from external and internal stakeholders
   - Is useful in making evidence-based health policy
   - Helps achieve equity and efficiency in health spending
   - Ensures financial sustainability of health funding
   - Improves timeliness and consistency of health expenditure information, thus making it more useful over time

2. **Overall, health expenditure information is useful to the countries for making health policy; tracking health resources; and achieving financial sustainability, equity, and efficiency in their health spending. Different countries may have used it differently, e.g., to inform their resource allocation decisions, especially during the recent financial crisis; to inform their equity analysis; or to provide an evidence base for their particular health reform decisions. Please identify, at serial number 1, key stakeholders who have an interest in using health expenditure information in your country, and state, at serial number 2, 2–6 specific examples of how your country has used health expenditure information in different ways.**
   1. Stakeholders
   2. How used

3. **During the global consultation that you attended in Washington, DC, on October 20–21, 2010, 25 countries committed to preparing their national institutionalization plans by early 2011. In this context, please respond to the following questions.**
   - Please name your country.
   - Please name your ministry and bureau/department.
   - Has the institutionalization plan been developed?
   - If yes, is it approved by the government?
   - What is the duration of this plan?

- Is it costed?
- If costed, what is the cost in local currency and in U.S. dollars?
- Are you willing to share this plan with us at this time?
- If the plan is not developed at this time, by when do you expect the plan will be ready?
- Do you need any technical assistance in developing this plan?
- If yes, please tell us in brief what kind of technical assistance you need.
- Does your country have a functioning policy advisory group?
- Is health accounting a budget item with its own budget code?
- Does your government have a mandate (legislative/executive) for production/institutionalization of health accounting?

4. **For your country to put in place effective and sustainable capacity for the production, dissemination, analysis, and use of health accounts, what time commitment and support would you expect from donors and development partners?**
   - 3 years
   - 5 years
   - 6–8 years
   - 9–10 years
   - More than 10 years
   - Comment, observation, or suggestion?

5. **As you build country capacity, which of the following costs is your government likely to fund from its own budget?**
   - Staff salaries and benefits
   - International consultant fees
   - Regional consultant fees
   - National consultant fees
   - Office space, equipment, materials, and furniture
   - Information technology (IT) hardware, software
   - IT maintenance survey costs
   - Analysis costs
   - Dissemination costs
   - Costs of using health expenditure information
   - Travel
   - International training
   - Training in the continent
   - National training

Comment on which of these costs your government may expect external sources to meet and their approximate value:

6. **Is your country likely to support one or more innovative financing mechanisms to sustain institutionalization? You may suggest any other financing mechanism best suited to your country's situation.**
   - Loan buy-down (loan buy-down or loans-to-grants conversion triggered by the achievement of predefined results)
   - Results-based transfers of donor aid to the government
   - Debt2Health–like instrument (donors cancel a fraction of debt held by recipient countries in return for specific investments in health projects.)

Describe an innovative mechanism to raise internal or external financing that will work well for your country:

7. **Establishing a Health Policy Analysis Center in a university setting is one way to build capacity in the country for analyzing and using health expenditure information. Which new investments aimed at building analytical capacity is your country likely to propose? Please name these investments and their likely cost. Please tell us also about what investments in information technology, surveys, and other physical infrastructure and human resources your country is likely to make and their likely cost.**
   1. Investments in analytical capacity
   2. Investments in capacity to use NHA
   3. Information technology infrastructure
   4. Survey infrastructure
   5. Other physical infrastructure
   6. New investments in human resources

8. **Provide us with a cost estimate of the latest health accounts in your country. If you are not sure of precise figures, please use estimates.**
   - Government paid what percentage of the total cost
   - Donors paid what percentage of the total cost
   - Name of the donor or donors (if applicable)
   - Total cost of the last health accounts in local currency
   - Total cost of the last health accounts in U.S. dollars
   - Cost of staff salaries and benefits
   - Consultant fees
   - Cost of office space, equipment, and furniture

- Cost of information technology
- Travel costs
- Training costs
- Survey costs
- Dissemination costs
- Analysis and use costs
- Other costs
- Name of the local currency
- U.S. dollar conversion rate

9. **International technical assistance is expensive and often does not result in transfer of capacity and skills to country officials. Institutionalization can help bring down this cost through gradual substitution of international consultants by regional and national consultants, eventually building the capacity within the government. Please tell us about costs related to international technical assistance for health accounts in your country in the latest five health accounts. You may base your answer on the best information you have, given the number of international consultants, time they worked, name of the donor who funded them, and cost in U.S. dollars or local currency (in brief: number of international consultants/duration/donor/cost).**
   - The latest health accounts
   - The second-latest health accounts
   - The third-latest health accounts
   - The fourth-latest health accounts
   - The fifth-latest health accounts
   - Compare the overall cost of donor-funded NHA versus government-funded NHA

10. **Please answer the following questions related to health subaccounts.**
    - Do you track HIV/AIDS expenditures? Please answer the following questions related to health subaccounts.
    - Do you track tuberculosis expenditures?
    - Do you track malaria expenditures?
    - Do you track any other disease-specific expenditures?
    - Do you track public expenditures on maternal and child health?
    - Do you track private expenditures on maternal and child health?
    - Do you track donor expenditures on maternal and child health?
    - Do you track public expenditures on family planning?

- Do you track private expenditures on family planning?
- Do you track donor expenditures on family planning?
- Would you be willing to share the subaccounts with us?
- Would you be willing to integrate maternal and child health subaccounts in your national institutionalization plan?

APPENDIX D

The NHA Cycle

This book, *Creating Evidence for Better Health Financing Decisions: A Strategic Guide for the Institutionalization of National Health Accounts*, emphasizes that institutionalization requires a cycle of National Health Accounts (NHA) activities to be embedded within a country's planning and budgeting processes. That cycle extends beyond just the production of data: it involves the broad dissemination of that data and its translation into insightful analysis that can form an evidence base for effective policy making (figure D.1). The cycle is underpinned by three key elements of a country:

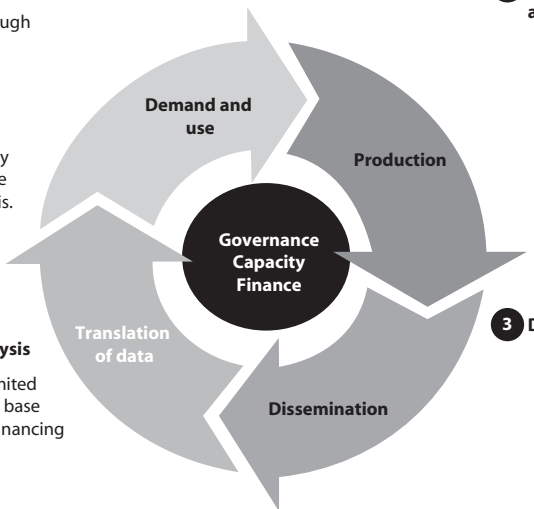
- ***Governance structure.*** Formal and informal structure that defines who is responsible for what in respect to each NHA activity
- ***Capacity.*** Individual and institutional capacity, as well as an enabling environment to plan and implement the NHA activities
- ***Financing.*** Financing for the NHA activities, including cost-sharing models between countries and development partners and approaches to achieve cost savings

The experiences of countries profiled in this book underline the importance of investing across the NHA institutionalization cycle. The

Figure D.1 Framework for Institutionalization of National Health Accounts

1 Demand and use

- As country leaders make tough trade-offs to ensure an equitable and efficient allocation of scarce health resources, there is a critical need for an evidence base.
- Regular use of NHA in policy making contributes to more sophisticated policy analysis.



2 Production, data management, and quality assurance

- Sustainable production of data remains a major challenge in many countries, but capacities to produce health accounts have grown significantly in the developing world over the past decade.

3 Dissemination

- Making the collected data available for analysis enhances transparency and, with experience, analysis and insights that inform policy.
- In countries that have institutionalized NHA, data are widely disseminated.
- Dissemination takes place on two occasions: (1) when the NHA tables have been produced, and (2) after the data have been translated into policy relevant briefs.

4 Translation of data and dissemination of specific analysis

- The value of NHA data is limited unless used as an evidence base for more informed health financing decisions.
- Country ownership of the translation process allows countries to champion key policy insights, increasing the likelihood that the answers NHA data provide will be used to affect policy.

case studies of these countries will provide valuable lessons, both for other countries and for their international development partners. They provide concrete examples of policy effect, such as the use of insights from NHA data, capacity building within the public sector and beyond, and the use of NHA in conjunction with other policy and planning tools to better inform decision making.

Key Insights on the Institutionalization of NHAs

The following is a brief summary of the key insights on the institutionalization of NHA from the case studies, across the NHA framework.

Governance Structure

NHA governance structures that are designed with multisectoral involvement can facilitate the production and translation of data into insights to inform policy. In Jordan, NHA data are analyzed by an interdisciplinary team comprising stakeholders from across the public and private sectors, as well as from the academic community. This structure allows for involvement from a variety of actors with the potential to translate data into policy-relevant insight. Likewise, in the Republic of Korea, the multisectoral NHA Forum, including representatives of the ministries of health and of welfare, oversees the NHA production process, and Malaysia's NHA Steering Committee is an interdisciplinary team comprising members from the public and private sectors. In Tanzania, oversight is provided by a Health Financing Working Group comprising development partners and representatives from the Ministry of Finance, the private sector, and civil society.

Capacity Building

Learning by doing is an effective approach to build long-term capacity for NHA systems. In Georgia, for example, international consultants from the World Health Organization initially helped develop standardized production tools, but today production is led by a local technical team. This team draws on the regional Euro-Asia NHA Network for the Commonwealth of Independent States as a source of capacity building. Thailand has built its capacity to produce NHA data through a learning-by-doing approach and through a well-functioning network of statisticians from key government entities that fosters collaboration.

Financing

Long-term financing based on a cost-sharing model between countries and international development partners can help ensure the sustainability of NHA—as can financing from domestic budgets alone. For example, Jordan uses public funds to produce, analyze, and disseminate data for decision making. Donor funds are primarily used to upgrade tools and build support for capacity building, thus promoting the long-term sustainability of NHA. NHA production in Serbia was initially donor supported, but it is now financed through domestic budgets. The government of the Seychelles covered all expenses involved in producing the country's first NHA, including costs for international experts—a vote of real commitment within the public sector to understanding health financing flows and creating an evidence-based planning and budgeting process.

Demand and Use

Integrating NHA with other policy instruments may increase the utility of NHA data and bridge the gap between production and use of data. For example, Burkina Faso uses NHA data in conjunction with a variety of data sources on government, private, and household health expenditures. All collected data are entered in a single database that is used to produce NHA tables. Serbia uses NHA data in conjunction with national statistics, budget surveys, annual reports from health care providers, and a World Bank baseline survey. In Tanzania, NHA data have been used in conjunction with various data instruments and tools, including the National AIDS Spending Assessment.

Production

Standardizing and documenting methods and tools can improve the sustainability of NHA production. Among India's strengths regarding production is its streamlined analysis of data, made possible by a skilled production team that can easily take raw data inputs and put these into an NHA-ready format for national- and state-level data. In Georgia, a special data management tool in Microsoft Excel was developed by the NHA production team in 2005 to ease the production of NHA tables and matrixes. NHA data have since been integrated into the Health Information System, allowing for easy transfer of data inputs to NHA production. In the Philippines, there is an emphasis on simplified NHA analysis based on institutionally generated data and standardized methodologies with clear documentation.

Translation of Data

Integrating NHA data into policy development processes can help translate data into meaningful policy insights. In Korea, the NHA focal point and other researchers conduct analyses to answer key policy questions. The NHA focal point plays a key role in government policy committees, which frequently use NHA data to inform debates at the highest levels. In the Philippines, several forums help build capacity to use NHA for decision making: these include the annual National Health Research Forum and the Inter-Agency Committee on Health and Nutrition Statistics.

Dissemination

Effective dissemination requires articulating a clear strategy and tailoring dissemination products to target audiences. In Malaysia, NHA reports are disseminated broadly to all public institutions, private organizations, and civil society. Turkey likewise strongly emphasizes the dissemination of NHA results and information sharing, with NHA being the official health financing data for the country. In Afghanistan, NHA results were disseminated nationally through a launching ceremony that received widespread coverage on local television and radio, motivating significant discussion.

APPENDIX E

Individuals and Organizations Consulted and Providing Inputs into the Strategic Guide

This guide, *Creating Evidence for Better Health Financing Decisions: A Strategic Guide for the Institutionalization of National Health Accounts*, has been developed through a process of (a) consultation with many countries and international development partners, (b) interviews with country producers and policy makers in more than 20 countries, (c) written contributions from country National Health Accounts (NHA) champions and consultants, (d) online surveys to countries on financing and costing, and (e) participation at several international conferences and regional consultations. Monthly meetings were held by the NHA Technical Advisory Group, and an extensive consultation process was held in October 2010. Countries, development partners, and regional country networks have provided important contributions that reflect their experiences throughout the NHA institutionalization process.

International Conferences

1. International conferences organized by the World Bank and partners:
   - Global Consultation: Promoting the Institutionalization of National Health Accounts, Washington, DC, October 2010
   - Organisation for Economic Co-operation and Development–World Bank Meeting on the Institutionalisation of National Health Accounts, Paris, France, October 2011

2. Side sessions at the following:
   - International Health Economics Association (iHEA), Beijing, China, July 2009, Prince Mahidol Award Conference (PMAC), Bangkok, Thailand, January 2010
   - World Health Organization World Health Assembly, Geneva, Switzerland, May 2011
   - International Health Economics Association (iHEA), Toronto, Canada, July 2011

Regional Consultations

South and East Asia Region: Delhi, India (December 2008), with Afghanistan, Bangladesh, India, Malaysia, Maldives, Nepal, Pakistan, and Sri Lanka (primarily government officials) participating. Development partners that contributed were the German Agency for Technical Cooperation (GTZ, regional office), World Health Organization (WHO, regional office), and World Bank (headquarters and regional office).

Latin America: Mexico City, Mexico (January 2009), with Argentina, Bolivia, Brazil, Costa Rica, Colombia, the Dominican Republic, Ecuador, Mexico, and Peru (LAC Network countries) participating. The development partners participating were Eurostat, Organisation for Economic Co-operation and Development (OECD), and WHO.

Africa: Nairobi, Kenya (April 2009), with Benin, Burkina Faso, Côte d'Ivoire, Ethiopia, The Gambia, Kenya, Mauritius, Namibia, Niger, Senegal, Sierra Leone, Tanzania, Zambia, and Zimbabwe (government officials and technical experts) participating. Development partners that participated were Eurostat, OECD, and WHO (country offices).

Europe and Central Asia: Yerevan, Armenia (November 2009), with Armenia, Belarus, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan (Euro-Asia Network countries) participating. Development partners that participated were the U.S. Agency for International Development (USAID), WHO (country and regional offices), and World Bank (headquarters and country offices).

Country Consultations with Development Partners

Bamako, Mali (April 2009), with Mali (National Public Health Department, National Statistics and Information Department, Ministry of Finance, and Department of General Budget) and with Afristat, CIDA (Canadian

Cooperation Office—Mali), Co-operation Dutch, and WHO (Burkina Faso) participating. The World Bank representative was Ousmane Diadie Haidara.

Bogota, Colombia (April 2009, September 2009), with Colombia (Ministry of Social Protection; Department of Planning; and Department of Statistics, Javeriana University) and Mexico (consultant) and with the World Bank (headquarters and country office) participating. The World Bank representatives were Andre Medici, Maria Ariano (consultant), and Juan Carlos Junca (consultant).

Ouagadougou, Burkina Faso (June 2009), with Burkina Faso (Ministry of Health and Ministry of Statistics), Mali (Ministry of Health), and Niger Ministry of Health) and with WHO (West Africa regional office) participating. The World Bank representatives were Ousmane Diadie Haidara and Tshiya A. Subayi (involved in initial stages).

Ulaanbaatar, Mongolia (July 2009), with Mongolia (Department of Health, Department of External Relations, and several other stakeholders) and with WHO (Western Pacific region) participating. The World Bank representatives were Tungalag Chuluun, John C. Langenbrunner, and Aparnaa Somanathan.

Rabat, Morocco (February 2010), with Morocco (Ministry of Health, Ministry of Economy and Finance, Ministry of Planning—Division of Statistics, and National Security Fund) and with the World Bank and WHO participating. The World Bank representative was Heba Elgazzar.

Accra, Ghana (July 2011), with Ghana (Ministry of Health and Institute of Statistical, Social and Economic Research) and with WHO (West Africa regional office) and the World Bank (headquarters and country office) participating. The World Bank representatives were Margareta Harrit, Akiko Maeda, and Karima Saleh.

Amman, Jordan (August 2011), with Jordan (High Health Council, Ministry of Finance, Ministry of Health, Ministry of Higher Education, Ministry of Planning and International Collaboration, Ministry of Social Development, the Royal Medical Services [army], Jordan University Hospital [JUH], King Abdullah University Hospital [KAUH], Food and Drug Administration, Joint Procurement Department, Department of Statistics, and the Private Hospitals Association) and with the World Bank (headquarters and country office) participating. The World Bank representatives were Bjorn Ekman, Margareta Harrit, and Allyala Nandakumar (consultant).

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One of the key constraints to improving health outcomes in the developing world is the establishment of equitable and efficient health financing. For policy makers, any analysis of health financing issues must begin with sound estimates of the resources in a health system. National Health Accounts (NHA) offer a globally recognized framework for collecting, compiling, and analyzing data on health expenditures to and within the health system. They contribute to creating transparency on where money comes from and how it is spent. They are a critical input for highlighting gaps in coverage, holding institutions accountable for improved performance, and informing effective health financing policy. Yet today, NHA are routinely produced mainly in the developed world. Although dozens of low- and middle-income countries have produced NHA, activities have often been delinked from core policy planning and budgeting processes—and from the leaders who drive those processes—at the country level.

The World Bank has been privileged to work closely with technical experts, policy makers, and global partners to improve resource tracking for better health financing policy, which requires the institutionalization of NHA. *Creating Evidence for Better Health Financing Decisions* represents a synthesis of lessons learned from country experiences, developed through an extensive consultative process involving more than 50 low-, middle-, and high-income countries from all over the world. Above all, this book is a *strategic guide*, intended as a practical resource for developing countries and their partners as they seek to strengthen long-term ambitions for effective resource tracking that is explicitly intended to inform policy.

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