Many countries around the world are reforming their health systems in an effort to improve the efficiency and management of health services as well as the distribution of these services, particularly among the poor. With health systems growing in scope and complexity, policymakers need tools to better manage their health care resources. National Health Accounts (NHA) is one tool used to visualize the flow of funds through the health sector, thus contributing to “better-informed” policy choices.

What is National Health Accounts?

NHA is a framework for measuring total – public, private, and donor – national health expenditures. Formatted in a standard set of tables, NHA methodology organizes, tabulates, and presents information on health spending in a user-friendly format. This format can be easily understood and interpreted by policymakers – including those without a background in economics. NHA essentially measures the “financial pulse” of a national health system by answering questions like:

▲ Who in the country is financing health services? How much do they spend? On what types of services?

▲ Who benefits from these health expenditures?

Why is NHA relevant to policymaking?

NHA is designed specifically to assist policymakers in their efforts to understand their health systems and to improve system performance. NHA information is useful to the decision-making process because it provides valuable information to policymakers, such as status reports on the current use of financial resources, the monitoring of health expenditure trends, and globally accepted indicators to allow for comparison of the country’s health system performance relative to that of other countries. NHA methodology can also be used to make financial projections of a country’s health systems needs. Likewise, NHA can highlight equity imbalances in distribution of health expenditures. Essentially, NHA contributes to “evidenced-based” or “informed” policy decisions.

How has NHA already informed the policy process?

NHA has been implemented in more than 68 countries worldwide.¹ Despite its recent introduction to many middle- and low-income countries, NHA findings have already affected health sector policies in these countries. Broadly speaking, NHA has been used to monitor and evaluate health care interventions, contribute to policy design and implementation, and inform health policy dialogue. NHA has also been designed to target specific policy issues, such as inequity within the health sector in South Africa and spending patterns for HIV/AIDS services in Rwanda.

Monitoring and evaluation in the Philippines:² In countries where NHA is carried out periodically, trend comparisons help to evaluate if implemented strategies have had their anticipated impact.

In the Philippines, NHA has been used to evaluate the impact of the government’s decentralization of the health sector, a policy enacted in 1993. Prior to the reforms, both central and regional government funding for “public” health care (services such as immunization, which benefits the community at large as well as the individual) was low, with central government funding actually decreasing significantly. NHA conducted from 1991 through 1997, before and after decentralization, found that spending on public health care actually increased from 25 percent to 35 percent of total government health spending in those years (Figure 1). This increase was largely due to increased funding from local governments, which allocated more than half their health resources to public health care in 1997.

¹ This includes OECD countries.

Contributed by Dr. Hossein Salehi, former NHA team member from Iran.

NHA showed that decentralization allowed local governments to increase their financial commitments to health care.

Thus, NHA revealed that decentralization had not only not adversely affected local government allocations to public health, but that the allocations actually had increased. NHA, and in particular its implementation on an annual basis, provided significant insight into the impact of decentralization on health care.

Policy design and implementation in Iran: NHA results have also been used in the formulation of specific strategies to address issues within the health sector.

After the revolution in Iran in 1979, the government instituted universal health care. To meet that policy objective, the national health system expanded rapidly. The government of Iran became the country’s largest purchaser of health care services, operating the system through the Ministry of Health and Medical Education.

Iran completed its NHA exercise in 2000 (for 1998 estimates). NHA results along with earlier expenditure data showed that, while per capita household expenditures on health care remained relatively stable in the 1990s, per capita government expenditures first fluctuated, and in 1994 began to decline (Figure 2). The Ministry of Health and Medical Education used this NHA information to lobby for and obtain an increased budget in 2000.

In addition to providing information on trends in government per capita expenditures on health, NHA showed that expenditures on private hospitals were higher than on any other category of provider. In 1998, private inpatient hospital expenditures totaled nearly 3.5 million Iranian rials, almost one quarter more than public inpatient hospital expenditures. Furthermore, while households accounted for only 12 percent of expenditures on public hospitals, they accounted for 88 percent of expenditures on private hospitals. Such findings suggest that households preferred to seek hospital care in the private sector, despite a likely higher cost. Prompted by this information, the government of Iran is investigating the reasons for the large private hospital expenditures. More broadly, the government will use NHA to inform the discussions and to adopt strategies for a large health reform initiative scheduled to take place in the near future.

Policy dialogue in Egypt: At the dialogue stage, NHA results have been used to 1) identify problems; 2) serve as a catalyst for change by attaching data that convey the magnitude of a problem; and 3) act as an advocacy instrument to stimulate action.

The Egyptian Ministry of Health and Population and collaborating international agencies (World Bank, U.S. Agency for International Development, and European Commission used NHA findings along with non-financial data to initiate a policy dialogue that led to the design and ongoing implementation of a primary health care restructuring initiative.

NHA contributed to the promotion of this initiative when it showed that Egypt spent nearly 4 percent of its GDP on health care, with household out-of-pocket expenditures amounting to almost 50 percent of total expenditures and the Ministry of Health and Population accounting for less than 20 percent of total expenditures. While the overall sum spent on primary care should have been adequate to provide a set of basic services to all the population, most of the funding was not organized or allocated in efficient ways.

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3 Contributed by Dr. Hossein Salehi, former NHA team member from Iran.

4 The increase was facilitated by increased revenue from rising oil prices.

In addition, the burden of household expenditures was very inequitably distributed, with the poor spending the largest share of income on health. This resulted in lower levels of access to care by the poor and those living in rural areas.

Such findings provided the Minister of Health and Population with the information needed to convince the People’s Assembly, the public, and those working in the ministry of the need to significantly restructure the way primary health care was organized and financed in Egypt. NHA also provided valuable information to the international donors to inform their discussions with the government. Consequently, the minister and the donors held a series of discussions in which they arrived at a mutually acceptable reform agenda as well as financing support.

**Achieving Equity in South Africa:** Soon after the end of apartheid in South Africa, one of the government’s major policy objectives was to achieve a more equitable distribution of health resources. The government therefore tailored NHA to reveal how health funds were used and by whom.

South Africa’s NHA analysis revealed that less money was being invested in government health services delivered in poorer magisterial districts compared with wealthier districts. Average public health expenditure per person was 3.6 times higher in the richest districts than in the poorest districts. Also, the poorer districts— which tended to be areas facing the greatest health problems—had the worst geographical access to health workers, hospitals, and clinics (Table 1). Specifically, the richest magisterial districts employed 4.5 times as many doctors and 2.4 times as many registered nurses as did the poorest ones.

These NHA findings served as an impetus to design new policies to geographically redistribute South Africa’s health resources in a more equitable manner. For example, in an effort to achieve equity in health infrastructure, the government enacted a moratorium on the construction of hospitals. Previously, hospitals were usually built in the richer neighborhoods that already had the greatest access to health care. The government used the moratorium period to enact legislation requiring an assessment of need for a hospital before construction would be permitted. This moratorium illustrated the government’s desire to take a more active role in coordinating and regulating how both public and private resources are used to better meet the populations’ health needs. The equity issues highlighted by the NHA study also contributed to the government commitment to shift public health funds to primary care services and infrastructure, particularly in poor and rural regions of the country.

**HIV/AIDS in Rwanda:** Rwanda began its NHA activity in 1999, expanding the framework to include NHA analysis specific to HIV/AIDS-related expenditures. The findings enabled the Ministry of Health to design and implement targeted policy interventions aimed at improving the financing of prevention activities and increasing access to basic health care services for people living with HIV/AIDS. The prevalence rate in Rwanda for people age 14 to 49 is 8.9 percent. Given the severity of the disease’s impact on the population, understanding the sources of financing available and how funds are used was key to designing effective interventions for dealing with the pandemic.

The results of the NHA analysis on HIV/AIDS expenditures showed that households were the primary source—93 percent—of financing for HIV/AIDS-related health care costs. This high proportional contribution amounts to 29 percent of total

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**Table 1. Distribution of Health Care Resources in South Africa 1992/93**

<table>
<thead>
<tr>
<th>Income Quintiles of Magisterial Districts</th>
<th>General Doctors (per 100,000 pop.)</th>
<th>Registered Nurses (per 100,000 pop.)</th>
<th>Province (ranked according to personal disposable income, lowest to highest)</th>
<th>Total Health Expenditure per Capita (Rand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (lowest)</td>
<td>5.1</td>
<td>78.8</td>
<td>Northern Province</td>
<td>164.07</td>
</tr>
<tr>
<td>II</td>
<td>9.4</td>
<td>90.9</td>
<td>Eastern Cape</td>
<td>220.98</td>
</tr>
<tr>
<td>III</td>
<td>15.8</td>
<td>128.4</td>
<td>North-West Territory</td>
<td>179.91</td>
</tr>
<tr>
<td>IV</td>
<td>13.5</td>
<td>128.2</td>
<td>KwaZulu-Natal</td>
<td>236.88</td>
</tr>
<tr>
<td>V (highest)</td>
<td>23.3</td>
<td>189.9</td>
<td>Mpumalanga</td>
<td>130.60</td>
</tr>
<tr>
<td>National Avg.</td>
<td>14.1</td>
<td>129.5</td>
<td>Free State</td>
<td>260.49</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Northern Cape</td>
<td>221.15</td>
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<td></td>
<td></td>
<td></td>
<td>Western Cape</td>
<td>491.13</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Gauteng</td>
<td>381.66</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>National Avg.</td>
<td>262.61</td>
</tr>
</tbody>
</table>


household spending on health, revealing the great financial impact of the disease. The combined findings from NHA analyses exposed a number of weaknesses in the equity and efficiency of HIV/AIDS funding, which challenges policymakers to more adequately address the flow of HIV/AIDS expenditures. For example, only 10 percent of all health monies were used to target prevention and treatment of the HIV virus in 1999, in the face of an illness that affects 11.2 percent of the adult population of around 370,000 people. In addition, NHA results revealed donor funds for HIV/AIDS programs were lacking, prompting the donor community to increase HIV/AIDS-specific contributions from US$0.5 million in 1998 to more than $1.6 million in 2000.7

Rwanda incorporated the NHA HIV/AIDS data tables into the National Development Indicators book. This step toward institutionalization of NHA will foster the tool’s continued contribution to policy, by providing regularly updated information for increasing the effectiveness of targeted health programs.

Regional NHA networks

NHA networks have been created in various regions of the world. The networks comprise countries with similar socioeconomic backgrounds, shared language, and common health issues. A regional network generally convenes several times a year, bringing together country NHA teams and policymakers. Meetings offer opportunities for training and cross-country sharing of NHA experiences and lessons learned. The forums allow participants to work together to find solutions to shared problems associated with NHA implementation. Four major regional networks are in existence: 1) Middle East and North Africa (MENA), 2) East, Central, and Southern Africa (ECSA), 3) Latin America and Caribbean (LAC), and 4) the Asia-Pacific Health Economics Network (APHEN). As NHA grows in popularity, more networks are being created, such as the Europe and Central Asia (ECA) network and the Francophone Africa NHA network. (For additional information on NHA networks, please contact PHRplus.)

What does it take to implement NHA?

Long-term commitment of senior decision makers is key to successful implementation of NHA. Their support is manifest in advocacy for the adoption of NHA and, more concretely, in sustained allocations of personnel and financial resources for NHA and in the creation of a legal environment that enables information sharing.

NHA implementation also requires ongoing interaction between a country’s policymakers and its NHA technical team. This interaction enables the team to react to specific policy concerns, for example, through sub-sector analyses like the HIV/AIDS study in Rwanda. Conversely, it informs policymakers of team needs, such as a legal infrastructure that encourages transparency and cooperation, allowing the team to collect data from various agencies on an annual basis. The teams themselves should represent the entire national health sector, including private, public, and parastatal entities. Members should demonstrate skills that enable the team to collect data, define expenditure boundaries, analyze data, and interpret results in a way that is understandable to policymakers and relevant to policy formulation.

Another measure of success is the institutionalization of NHA, when the activity is produced on a regular basis that is fully supported by the government, and the use of NHA data to implement meaningful and effective health system reform. Over the years, the data also will allow for trend analyses and monitoring of the impact of reform interventions.

So that NHA can be relied upon for good national policy decisions, countries must ensure that the data fed into it are as complete, accurate, and consistent as possible. So that countries can use NHA findings to compare themselves to other countries, data must also conform to international standards and definitions. These issues demand both the transparency of information discussed above and investment in the development of data tracking and reporting systems, accounting systems, and associated activities, such as household surveys.

As NHA proves its usefulness, it continues to gain adherents. Of the 68 countries around the world that have conducted NHA, only one third currently does so on a regular, sustained basis. However, this percentage is growing, as many countries are now taking serious steps toward institutionalization.

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