

Report on the

**Regional training workshop on recent  
developments in national health accounts**

Cairo, Egypt  
25–29 May 2008

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## 1. INTRODUCTION

A regional training workshop on recent developments in national health accounts (NHA) was organized from 25 to 29 May 2008 in Cairo, Egypt, by the World Health Organization (WHO) Regional Office for the Eastern Mediterranean (EMRO), in collaboration with the United States Agency for International Development (USAID) and the World Bank (WB). The workshop was attended by NHA teams from health and related ministries and agencies in Afghanistan, Bahrain, Djibouti, Egypt, Iraq, Islamic Republic of Iran, Jordan, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, Tunisia and Yemen and representatives of the Bill and Melinda Gates Foundation and the German Agency for Technical Cooperation (GTZ).

The objectives of the workshop were to:

- train and update the national NHA team on recent developments in national health accounts analysis;
- train national NHA focal points on the development of basic health account indicators annually published by WHO;
- discuss recent developments in national health accounts methodology, including reproductive health sub accounts, HIV/AIDS subaccounts and malaria subaccounts;
- promote and develop a regional network on national health accounts.

Dr Abdallah Assa'edi, WHO Assistant Regional Director for the Eastern Mediterranean, delivered the opening message of Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean. Dr Gezairy stressed that demographic transition, rapidly changing patterns of morbidity and mortality, technological advances, ever increasing public expectations and the emergence of new public health problems all called for a more efficient use of resources, and in most cases, more resources. National health accounts were designed to provide the required financial information for policy-makers. National health accounts traced how much money was being spent, where resources came from, where they were being spent, what they were being spent on and for whom, how that had changed over time, and finally, how that compared to spending in countries facing similar conditions. He further emphasized that national health accounts led to the development of a culture that promoted transparency, and that personal and subjective health policies were replaced by evidence-based policies that were not subject to frequent, and sometimes, premature changes.

The meeting agenda, programme and list of participants are included as Annexes 1, 2 and 3, respectively. The full text of the Regional Director's message is included as Annex 4.

## 2. TECHNICAL PRESENTATIONS

### 2.1 What is a national health account?

*Dr Moulay Driss Zine Eddine Elidrissi, WHO/EMRO*

National health accounts (NHA) provide a financial picture of the health system. They are a standard set of tables in which the flows of funds through the health system are shown. The tables provide key indicators to policy-makers, as well as researchers, to diagnose the financial health of the health system. A NHA is a tool for policy formulation, monitoring and evaluation and it answers the following questions.

- Who pays and how much do they pay for health (resource mobilization)?;
- Who are important actors in the health system in terms of financing for health care delivery, and how significant are they (resource management: risk pooling and providers' payment mechanisms)?;
- How are health funds distributed across the different services, interventions and activities that the health system produces (What is produced? Who provides what services)?;
- Who benefits from health expenditure (by income, gender, diseases, and regions)?

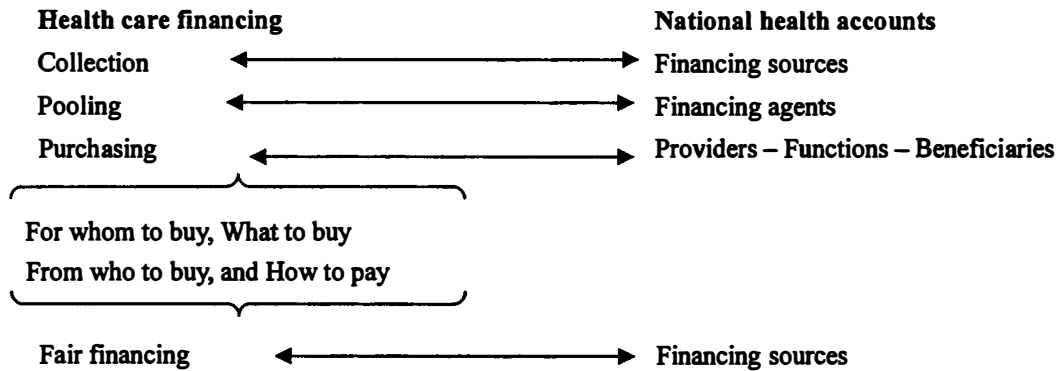
NHA are presented in two-way interconnected matrix format tables. A NHA table shows how much is spent by each actor and where exactly their funds are transferred to. Total health expenditure, total expenditure for inpatient care, per capita expenditure on medicine, share of out-of-pocket expenditure from total health expenditure, share of public health expenditure from total health expenditure are some examples of indicators that are derived from NHA tables.

### 2.2 The link between NHA and health care financing and policy

*Dr Hossein Salehi, WHO/EMRO*

Collection, pooling and purchasing are the three subfunctions of health system financing. In terms of collection, health systems should raise sufficient and sustainable revenues in an efficient and equitable manner to provide individuals with both a basic package of essential services and financial protection against unpredictable catastrophic financial losses caused by illness and injury. Pooling means management of the collected revenues to equitably and efficiently pool health risks allowing for subsidies from healthy to unhealthy, rich to poor and productive workers to dependants. The objective of purchasing is to assure that the purchase of health services is strategic and both allocatively and technically efficient.

Figure 1 shows the link between the NHA framework and health care financing (HCF). It is important that contributions are based on the ability to pay and not on health needs.



**Figure 1. The link between NHA and health care financing**

A NHA is an important analytical tool that provides evidence for health care financing and health system reform. A NHA serves health financing by providing evidence needed to influence policy-makers in relevant ministries and results in the design and implementation of new health policies.

### 3. HEALTH EXPENDITURE

#### 3.1 Concepts of health expenditure

*Mr Ibrahim M. Shehata, USAID*

It is important to define health care expenditure boundaries as deciding what to include and what not to include in estimating health expenditures as a critical step when estimating NHA. Different countries may have different ideas about “health” expenditure boundaries. However, comparisons will not be useful if countries do not follow the same specifications to define the boundaries of what is being measured. A NHA is based on a functional definition of health, which means that expenditures are included in the NHA boundary according to the function or type of activity being performed, not based on the provider of that activity or on the outcome of the activity. If the primary aim of the health activity is to improve the health status of people, the expenditure should be included. NHA presents health expenditure for a country’s citizens and residents, as well as spending by external agencies, such as bilateral aid agencies, on inputs to health care in that country. NHA uses the accrual, not the cash accounting method, which means that expenditures are attributed to the time period during which the economic value was created, not to the time period during which actual cash disbursements took place. However, it is essential to have good records on the rationale of including or excluding certain expenditure. Expenditure on traditional medicine and healers is relatively high in some countries and therefore should be included, but like all other exceptions should be noted at the bottom of the NHA table.

## 4. CLASSIFICATIONS

### 4.1 International classification for health accounts

*Ms Nathalie Van De Maele, WHO/HQ*

International classification for health accounts (ICHA) offers a framework but allows flexibility at a more disaggregated level. ICHA uses alphabetical codes to define classifications, for example, health providers are denoted by HP. Entities and transactions are grouped using numerical codes. The two first digits are internationally agreed grouping for example HF 1.1, and the additional digits are national specifics and planned to accommodate unique features of countries' health care structures, for example, HF 1.1.1. If a proposed item does not exist in a country, it has to be ignored and left empty. However, coding must not be rearranged. Topics can be changed to better correspond to country-specific terminology.

### 4.2 Classifying financial sources and financing agents

*Dr Moulay Driss Zine Eddine Elidrissi, WHO/EMRO*

Financial sources (FS) are defined as entities that provide health funds, or in other words, entities where the money comes from. Ministries of finance, households and donors are examples of financial sources. Financial agents (HF) are defined as entities with the power and control over the use of funds. Financial agents receive funds from financial sources. The funds are used to pay for health services, products and activities. Examples of financial agents are ministries of health and insurance companies. The classification of financial sources and financing agents is shown in Tables 1 and 2, respectively.

**Table 1. Classification of financial sources**

<b>FS.1 Public funds</b>
FS.1.1 Territorial government funds
FS.1.1.1 Central government revenue
FS.1.1.2 Regional and municipal government revenue
FS.1.2 Other public fund
<b>FS.2 Private funds</b>
FS.2.1 Employer funds
FS.2.1.1 Parastatal employer funds
FS.2.1.2 Other employer funds
FS.2.2 Household funds
FS.2.3 Non-profit institutions serving individuals
FS.2.4 Other private funds
<b>FS.3 Rest of the world funds</b>

**Table 2. Classification of financing agents**

<b>HF.1 General government</b>
<b>HF.1.1 Territorial government excluding social security funds</b>
HF.1.1.1 Central government
HF.1.1.1.1 Ministry of health
HF.1.1.2 State/provincial government
HF.1.1.3 Local/municipal government
<b>HF.1.2 Social security funds</b>
<b>HF.2 Private sector</b>
<b>HF.2.1 Private social insurance</b>
HF.2.1.1 Insurance for government employees
<b>HF.2.2 Other private insurance</b>
<b>HF.2.3 Households' out-of-pocket payment</b>
<b>HF.2.4 Non-profit institutions serving households (other than health insurance)</b>
<b>HF.2.5 Private firms and corporations (other than health insurance)</b>
HF.2.5.1 Parastatals
<b>HF.3 Rest of the world</b>

### 4.3 Classifying providers and functions

*Mr Ibrahim M. Shehata, USAID*

Providers (HP) are defined as entities that provide or deliver health care and health-related services. The question is who provides the services and where are they provided. Hospitals, clinics and pharmacies are examples of providers. Functions (HC) are defined as actual service or activities delivered by providers. Here the question is what type of service, product or activity was actually produced (i.e. curative care, pharmaceuticals, outpatient care, and prevention programmes). Classification of providers and functions is shown in Tables 3 and 4, respectively.

**Table 3. Classification of providers**

<b>HP.1 Hospitals</b>
HP.1.1 General hospitals
HP.1.1.1 Government-owned general hospitals
HP.1.1.2 Private-for-profit owned general hospitals
HP.1.1.3 Specialty hospitals (other than mental health and substance abuse)
<b>HP.2 Nursing and residential care facilities</b>
<b>HP.3 Providers of ambulatory health care</b>
HP.3.1 Offices of physicians
HP.3.2 Offices of dentists
HP.3.3 Offices of other health practitioners
HP.3.4 Outpatient care centres
HP.3.4.1 Family planning centres
HP.3.4.2 Outpatient mental health and substance abuse centres
HP.3.4.3 Free-standing ambulatory surgery centres
HP.3.4.4 Dialysis care centres
HP.3.4.5 All Other outpatient multi specialty and cooperative service centres
HP.3.5 Medical and diagnostic laboratories
<b>HP.4 Retail sale and other providers of medical goods</b>
HP. 4.1 Dispensing chemists
<b>HP 5. Provision and administration of public health programme</b>
<b>HP 6. General health administration and insurance</b>
<b>HP 7. All other industries (rest of the economy)</b>
<b>HP 8. Institutions providing health-related services</b>
<b>HP 9. Rest of the world</b>
<b>HP. n.s.k Provider expenditure not specified by kind</b>

**Table 4. Classification of functions**

<b>HC.1 Services of curative care</b>
HC.1.1 Inpatient curative care
HC.1.2 Day cases of curative care*
HC.1.3 Outpatient curative care*
HC.1.3.1 Basic medical and diagnostic services*
HC.1.3.2 Outpatient dental care
<b>HC.2 Services of rehabilitative care</b>
<b>HC.3 Services of long-term nursing care</b>
<b>HC.4 Ancillary services to medical care</b>
HC.4.1 Clinical laboratory
HC.4.2 Diagnostic imaging
HC.4.3 Patient transport and emergency rescue
<b>HC.5 Medical goods dispensed to outpatients</b>
HC.5.1 Pharmaceuticals and other medical non-durables
HC.5.1.1 Prescribed medicines
HC.5.1.2 Over-the-counter medicines
HC.5.1.3 Other medical non-durables
<b>HC.6 Prevention and public health services</b>
<b>HC.7 Health administration and health insurance</b>
<b>HC.n.s.k HC expenditure not specified by any kind</b>
<b>HR.1–5 Health-related functions</b>
HCR.1 Capital formation for health care provider institutions
HCR.2 Education and training of health personnel
HCR.3 Research and development in health
HCR.4 Food, hygiene and drinking-water control
HCR.5 Environmental health
<b>HCR. n.s.k HCR expenditure not specified by any kind</b>

## 5. DATA

### 5.1 Collection of data

*Ms Nathalie Van De Maele, WHO/HQ*

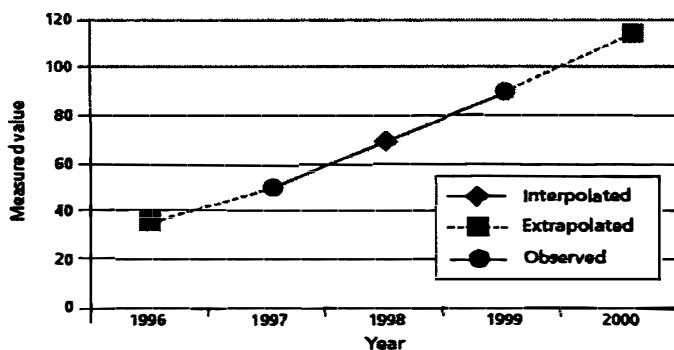
Data collection has the following four goals: using all suitable existing data, adjusting existing data to bring them closer to suitability, improving surveys and administrative records for suitability, and generation estimates when data is “missing”. When collecting data it is recommended to look for more than one source and document the sources that are collected with a description of the content of the data. Available sources may sometimes need to be complemented by small surveys, especially for disease-specific or programme-specific information, for example, estimating outpatient and inpatient shares of hospitals’ expenditure, or HIV households’ expenditure. When presenting data the collector should be clear and transparent and tell the caveats of his results, because they may be subject to discussion and will need to be defended. Before collecting data one should, in consultation with policy-makers, always identify which health policy issues to address. Government records are regularly produced, detailed and audited, but do not necessarily match the provider or functional classification. Studies and research are a good source of information but will require adjustments, for example if a study looks at a sample, information

on total population is needed. The private sector is sometimes reluctant to share records, but it has timely information, although it might not be well disaggregated. Public provider records can be biased because of the sector's tendency in some countries to inflate expenditure. When no data are available one can rely on a household survey or conduct a small survey oneself.

## 5.2 Imputation, interpolation, and extrapolation

*Dr Moulay Driss Zine Eddine Elidrissi, WHO/EMRO*

Interpolation refers to making estimates between two observed points. Extrapolation refers to making estimates without the advantages of two bounding observations. In Figure 2, interpolated and extrapolated values are shown together with two measured values. Imputation means making some informed guesses about reality, the value is not observed. However, informed guesses are just that; they are informed, not merely shots in the dark. Extrapolation in the absence of an indicator is a form of imputation.



**Figure 2. Interpolation and extrapolation**

## 5.3 Organizing data to fill in tables

*Mr Ibrahim M. Shehata, USAID*

Countries should complete at a minimum the FS x FA, FA x P, FA x F and P x F tables (Table 5). Additional tables should be driven by policy concerns and data availability. Data reliability plays a critical role in determining what numbers to use when populating tables. Populating tables can be an overwhelming task if not carefully done in a planned and methodical way.

When reconciling data conflicts, the first step is to evaluate if it can be resolved with minimal effort. If not, ignore it and focus on discrepancies that are more than the 2% of total health expenditure. In order to avoid double-counting, the NHA team should be vigilant in ensuring that the same piece of information is not captured in more than one data source.

**Table 5. Financing sources and financing agents table**

Financing agents	Financing sources					Total
	FS.1 Public funds	FS.2 Private funds			FS.3 Rest of the world funds	
	FS 1 1 Territorial government funds	FS 2 1 Employer funds	FS.2 2 Household funds	Private sub-total		
<b>HF.A Public sector</b>						
HF. 1 1 Territorial government						
HF 1 1 1 Central government						
HF.1.1.1 1 Ministry of Health						
HF 1 1 1 2 Ministry of Defense						
HF 1 1 1 3 Ministry of Education						
HF 1.1 3 Municipal government						
HF 1.2 Social security funds						
HF 2 1.1 Government employee insurance programmes						
HF 2 5 1 Parastatal government						
<i>Public sub-total</i>						
<b>HF. B Non public sector</b>						
HF.2 1 Private social insurance						
HF.2 2 Private insurance enterprises (other than social insurance)						
HF.2 3 Private households' out-of-pocket			Direct transfer			
HF 2 4 Non-profit institutions serving households (other than social insurance)						
HF 2 5 Private firms and corporations						
HF 2 5 2 Private nonparastatal firms and corporations (other than health)						
<i>Private subtotal</i>						
<b>HF.3. Rest of the world</b>						
<b>Total</b>						

## 6. PLANNING THE NHA PROCESS

### 6.1 National accounts versus health accounts

Mr Bernd Struck, GTZ

At some point in the health accounts process, health accountants will interact with colleagues working on national accounts. The two systems exhibit methodological similarities, despite the differences stemming from different focuses. Cooperation between accountants dealing with national accounts and health accounts is possible and desirable. These two groups face common problems. Working in monetary terms they therefore share the problem of dealing with inflation and different currencies. Generally, both systems provide figures at current prices, as well as in prices of a certain base year or of a certain currency (e.g. US\$) or of purchasing power parities (PPP). Work is under way to produce a formal crosswalk between the system of national accounts and the system of health accounts. When completed, this crosswalk will facilitate displaying satellite national income accounts as NHA and vice versa.

## **6.2 Planning the NHA process**

*Dr Hossein Salehi, WHO/EMRO*

The suggested four steps for planning the NHA process are (1) building demand for the NHA; (2) housing the NHA; (3) organizing the NHA core team, steering committee, stakeholder groups and their relationships; and (4) developing the work plan. Different countries may approach NHA differently. Some prefer to contract out the NHA study to a university or other organization outside the ministry of health but this may jeopardize efforts to institutionalize the NHA within the government and in the long-term.

The NHA advocate will be the primary champion in spreading the word about the NHA and its usefulness to policy-makers. The core NHA team in many countries begins with four to five people. However, in practice, one to two people do the entire study. These two core members must have both team leadership and technical skills. Ensuring policy neutrality and independency of the core NHA technical team is an important consideration when a country decides on where to house a NHA. The work plan should include NHA tasks needed, strategies and actions needed for completion of tasks, person responsible, and timeline for completion.

## **7. NHA SUBACCOUNTS**

### **7.1 Disease subaccounts**

*Mrs M. Bhawalkar, USAID*

NHA subaccounts are an additional review of spending patterns for the delivery of a particular set of health care services, such as disease-specific services (e.g. malaria, HIV), or intervention clusters (e.g. reproductive health services, child health care), and to support decisions at programme level. Subaccounts are generally conducted in tandem with general NHA. It is cost saving to piggy-back them onto the general NHA data collection process. Subaccounts are included as separate chapters within the general NHA report. Subaccounts provide stakeholders with a comprehensive review of disease-specific flow of funds and assess the relative financial priority of the disease in the health system. They also serve as both an advocacy and monitoring tool supporting an evidence-based approach to the policy process. Governments can use the NHA subanalysis to allocate resources in the most efficient and effective way to prevent the spread of the disease, treat those affected, and mitigate the impact of the epidemic. Findings from 2002 Rwanda reproductive health subaccounts reveal that dependence on donors to finance reproductive health was high and government contribution to reproductive health low, and in fact households financed more than the government. While donor spending has increased in 2006, reproductive health only accounts for 6% of total health expenditure. These findings are used by government and health partners to advocate and select reproductive health as one of the four priority areas in the 2008 joint annual health work plan in Rwanda.

## **8. WHO ESTIMATES FOR HEALTH EXPENDITURE**

### **8.1 Estimating key health expenditure series**

*Ms Nathalie Van De Maele, WHO/HQ*

The mandate of WHO is, under ministries of health leadership, to promote production of health expenditure information, and to produce information on Member States' expenditure on health. Health expenditure statistics are essential for managing health systems; policy-making cannot be designed without financing information. NHA exercises are not conducted yearly and therefore there is a need to update key expenditure on health services between exercises, with data collection and data estimation. WHO recommends that countries engage in regular production of NHA statistics.

When estimating missing data the general recommendations can be followed. Accounting should be estimated by adding up components into aggregate levels (bottom-up approach). When the value is missing, it can be interpolated (between existing validated data points) or extrapolated (project backwards or forwards) from available validated data. WHO recommends that extrapolations be computed with the aggregate (disaggregate) indicator series of the immediate next level from the control variable. Estimation methods are strengthened when the following applies.

- level of information is disaggregated and imputations are made at the most disaggregate level;
- indicator series are strongly reliable and of direct relationship with the series to estimate;
- the number of years between available data and imputed value is small;
- there are many available data points from the same source of information;
- information is available to triangulate.

Selecting the appropriate estimation method is linked to the economic nature of the series to be estimated; some series may be better estimated from previous growth rates, while others may be more strongly linked to available indicator variables.

## **9. INSTITUTIONALIZATION AND NETWORKS**

### **9.1 Institutionalization of NHA**

*Dr A. K. Nandakumar, Bill and Melinda Gates Foundation*

Institutionalization is the process of making a methodology, idea or concept become part of a routine function of an organization. The two main principles of institutionalization are: (1) becoming a core activity within an entity responsible for producing it; and (2) being closely linked to policy requirements in order to be useful. The key component of institutionalization is stakeholders demand for information. The other important components are:

- resources: human, financial, organizational and infrastructure;
- enabling environment: legal framework and policy context in which information is produced;
- ownership and participation by national teams;
- financing indicators: specific financing indicators, included in the minimum core set of indicators and process of selecting such indicators;
- data sources: public/private and primary/secondary;
- data management: collecting collating, analysis, flow and management of data;
- information products: converting data to information and subsequently to knowledge;
- dissemination and use: making information widely available to decision-makers and in turn creating demand for information.

In some countries the absence of a data culture among decision-makers is a challenge to institutionalization, which also requires routine data collection and standardized national expenditure reporting for both the public and private sector. Lack of resources is also considered a constraint for the institutionalization of NHA.

## 9.2 WHO NHA web site

*Dr Moulay Driss Zine Eddine Elidrissi, WHO/EMRO*

The objectives of the WHO NHA web site are to disseminate documentation of national health accounts, answer technical questions from countries, and provide and exchange experience, knowledge and expertise. A frequently asked questions (FAQ) page was put together using questions most frequently heard in workshops and in countries. Through the web site a group of experts is at countries' disposal to answer questions of a technical nature. The address of the web site is <http://www.who.int/nha/en>.

Panel members were asked to share their recommendations for countries on promoting NHA, institutionalizing NHA and moving forward. They emphasized that some countries have received technical assistance several times and still have not implemented NHA. Participants were encouraged to think about how they want to take NHA forward in their countries. Panel members explained that technical knowledge is not well anchored in some countries. If individuals in health ministries are interested or engaged in national health accounts, NHA will be produced with less resources and NHA are better institutionalized than in some countries with stronger information.

Panel members further emphasized how crucial it is to involve policy-makers in the NHA process. Information and a data-sharing culture should be built among policy-makers. Younger policy-makers will have different and more positive attitudes towards NHA, therefore NHA should be implemented immediately and become a yearly routine process.

Participants were advised by the panel to find some sensitive areas policy-makers need information on, and by means of that information convince policy-makers of the lack of or the need for resources. As an example the panel used out-of-pocket expenditure, which was made an issue by WHO for policy-makers. Some countries have responded positively in convincing policy-makers the data is not usually an issue. Participants were recommended to start producing health accounts and then to gradually improve their tables. It is time for countries to take charge and for the development of NHA to become a country-driven activity.

## **10. GROUP WORK**

Participants were divided into four groups to share their recommendations on promoting and institutionalizing NHA, and moving forward. The groups emphasized that it is important to establish strong collaboration between the ministry of health, ministry of planning, statistical office, ministry of finance and academic institutions. They also proposed that preparing the NHA should be a legal obligation. Health information system improvements in countries would address the issues in data collection. The groups also recommended that countries would start to share experiences and discuss NHA in order to build a regional network. An annual meeting of the countries of the Region should be held to exchange views, experiences and progress of NHA activities. The groups also proposed that countries should be encouraged to sustain the NHA assigned team. They also expressed a desire for WHO and donors to provide more training on NHA for different groups of policy-makers and teams.

## **11. CONCLUSIONS AND THE WAY FORWARD**

It was agreed that in order to engage WHO and for countries to commit themselves to develop NHA, countries should make a workplan and send it to the Regional Office for feedback in June 2009. The workplan should be a strategy of how to move forward. It should clearly state what the country has at the moment related to implementation and institutionalization of NHA, including the bottlenecks. The workplan should also specify what kind of technical or other support is needed in country.

It was emphasized that NHA is important, but the trends are more useful and countries should compare indicators between years. Institutionalization is important also for future, still unseen, purposes. Participants were encouraged by WHO experts to start the NHA process and asserted that policy-makers would join later. Countries were also encouraged to publish their findings in the *Eastern Mediterranean Health Journal* and also to send documents and articles to the Regional Office Division of Health Services observatory.

**Annex 1**

**AGENDA**

1. Registration
2. Opening session
3. Introduction and objectives of the workshop
4. NHA general overview
5. Link between NHA and health care financing and policy
6. Concepts of health expenditures
7. ICHA classification and NHA flexibility
8. Classifying financing sources (FS) and financing agents (HF)
9. Classifying providers (HP) and functions (HC)
10. Collection of data
11. Imputation, interpolation and extrapolation
12. Organizing data to fill in tables
13. Planning the NHA process
14. Disease subaccounts
15. Practice on WHO NHA templates
16. Institutionalization of NHA
17. WHO NHA web site
18. NHA regional networking
19. Group work
20. Group presentations
21. The way forward: closing session
22. Closing session

## Annex 2

## PROGRAMME

## Sunday, 25 May 2008

08:00–08:45	Registration	
08:45–09:00	Opening session	
	<ul style="list-style-type: none"> <li>• Dr Robert Emrey, Chief, Health Systems Division, USAID Washington DC</li> <li>• Message by RD “Delivered by Dr A. Assa'edi, Assistant RD”</li> </ul>	
09:00–09:15	Introduction and objectives of the workshop	<i>Dr H. Salehi</i>
09:15–10:00	NHA general overview	<i>Dr Z. El-Idrissi</i>
10:30–11:00	Link between NHA and health care financing and policy	<i>Dr H. Salehi</i>
11:00–12:30	Concepts of health expenditure	<i>Mr I. Shehata</i>
	<ul style="list-style-type: none"> <li>• What constitutes “expenditure”?</li> <li>• What are the boundaries of health expenditure?</li> <li>• Criteria for determining boundaries <ul style="list-style-type: none"> <li>Geographic boundaries</li> <li>Functional boundaries</li> <li>Time boundaries</li> </ul> </li> </ul>	
	Including exercises	
13:30–15:00	ICHA Classification and NHA flexibility	<i>Ms N. Van De Maele</i>
	Classifying financial sources (FS) and financing agents (HF)	<i>Dr Z. El-Idrissi</i>
	<ul style="list-style-type: none"> <li>• Financing sources (FS)</li> <li>• Financing agents (HF)</li> </ul>	
	Including exercises	
15:30–17:00	Classifying providers (HP) and functions (HC)	<i>Mr I. Shehata</i>
	Reading the tables	
	<ul style="list-style-type: none"> <li>• Providers</li> <li>• Functions</li> <li>• Setting up and reading the principal and additional NHA tables</li> </ul>	
	Including exercises	

## Monday, 26 May 2008

8:30–10:00	Group work	<i>Dr H. Salehi</i>
	Describing financial flow within the country	
	<ul style="list-style-type: none"> <li>• Financial flows between FS and HF</li> <li>• Financial flows between HF and HP</li> </ul>	

- 10:30–12:30 Collection of data *Ms N. Van De Maele*
- Sources (advantages and disadvantages)
  - Primary and secondary sources
  - Elements to be included in some surveys
  - Making a data plan
- Including exercises
- 13:30–15:00 Imputation, interpolation, and extrapolation *Dr Z. El-Idrissi*
- Including exercises
- 15:30–17:00 Organizing data to fill in tables *Mr I. Shehata*
- General approach to filling in the matrices
  - Steps to populating the FS x HF table
  - Steps to populating the HF x HP table
  - Resolving data conflicts
  - Avoiding double counting
- Including exercises

**Tuesday, 27 May 2008**

- 08:30–10:00 Planning the NHA process *Dr H. Salehi*
- Building the foundation for NHA
  - Setting up the team
  - Organizing the core team and steering committee
  - Developing the workplan
- Including exercises
- 10:30–12:30 Diseases subaccounts *Mrs M. Bhawalkar*
- NHA subaccounts overview
  - Countries' experiences with NHA subaccounts (RH, Malaria, HIV-AIDS)

**Wednesday, 28 May 2008**

- 08:30–10:00 Practice on WHO NHA templates *Ms N. Van De Maele*
- Presentation of WHO NHA template
  - How to fill in the financing agents and financing sources section
  - Imputation techniques
- 10:30–12:30 Country group work
- 13:30–15:00 Practice on WHO NHA templates (cont') *Ms N. Van De Maele*
- How to fill in the health providers and health functions sections
  - Adjustments
  - Imputation techniques
- 15:30–17:30 Country group work

**Thursday, 29 May 2008**

08:30–10:00	Institutionalization of NHA WHO NHA web site Panel discussion:	<i>Dr A.K. Nandakumar/Mrs M. Bhawalkar</i> <i>Dr Z. El-Idrissi</i>
	• NHA regional networking	<i>Dr H. Salehi</i>
10:30–12:30	Group work	
14:00–15:00	Group presentations	
15:00–15:30	The way forward: closing session	

**Annex 3**

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**Annex 4**

**MESSAGE FROM THE REGIONAL DIRECTOR**

It is with great pleasure that I welcome you to the Training Workshop on Recent Developments in National Health Accounts. I would like to thank the participants from health and related ministries and agencies for taking part in the workshop. I would also like to thank the resource persons and headquarter colleagues for supporting the workshop. This workshop is organized with collaboration of the World Bank and the USAID. It presents an excellent opportunity for national health accounts technicians from the Eastern Mediterranean Region to become familiar with the latest developments in preparation of national health accounts.

Demographic transition, rapidly changing patterns of morbidity and mortality, technological advances, ever increasing public expectations, and the emergence of new public health problems all call for more efficient use of resources, and in most cases, more resources. In many countries, health care is provided by a complex and changing combination of government and private sector, for-profit and non-profit providers. In such an environment, policy-makers need reliable national and sub-national information on sources and uses of funds for health, preferably comparable over time and across countries, in order to enhance health system performance.

National health accounts are designed to provide the required financial information for policy-makers. They depict the flow of funds through the health system. If implemented on a regular basis, NHA track trends in health expenditures—an essential element in health care monitoring and evaluation. NHA can also help to make financial projections of a country's health system requirements.

National health accounts are structured to answer specific questions about health systems. They trace how much is being spent, where resources come from, where they are being spent, what they are being spent on and for whom, how that has changed over time, and finally how that compares to spending in countries facing similar conditions.

National health accounts are an analytical tool and, when used in conjunction with other epidemiological and socioeconomic data, can guide policy-makers in identifying shortcomings in health systems and finding ways to solve them. National Health Accounts allow also monitoring and evaluation of the policy impact of various interventions, including their impact

on vulnerable groups. They also provide a basis for tracking external resources allocated to health development, can facilitate monitoring of health development through poverty reduction strategies, and can help to monitor the achievement of the Millennium Development Goals and other stated global objectives.

National health accounts have been promoted as part of the regional programme on health economics and health care financing since 1995. The first national health accounts exercise was carried out in Egypt in 1995 with financial and technical support from USAID. In 1998 a joint WHO, World Bank, USAID- SH 2020 initiative was undertaken to train national health accounts teams in the Region. The first training workshop was held in Tunisia for eight countries in 1999 and has been followed by over ten regional, subregional and national training workshops and consultation since then.

The first round of national health accounts estimates provided key financial indicators to policy-makers in the Member States and opened up dialogue between ministries of health and national stakeholders, as well as international partners. There are indications that national health accounts are now contributing to policy analysis and formulation in some countries, and I hope that this contribution to policy formulation will expand throughout the Region.

Many countries of the Region now consider national health accounts as among the analytical tool kit used to enhance health system performance and to promote evidence-based policies and strategies. Countries of the Region have increasingly been requesting technical support to undertake national health accounts studies. The interest in producing national health accounts estimates is welcomed and supported by the Regional Office. We hope that this training workshop, which will be led by top experts in this field, and the WHO national health account website dedicated to supporting development of health accounts in the world, will pave the way for further development of national health accounts in the Member States.

WHO, the World Bank, and the United States Agency for International Development joined forces to produce the guide for producing national health accounts that provides the basis for this training workshop. The development of the national health accounts function and its institutionalization are being promoted in health systems throughout the Region. The close collaboration of WHO, the World Bank and USAID has contributed significantly in this important field.

The expectations from national health accounts teams are indeed very high. National health accounts are more than just a set of tables, albeit very informative tables. They lead to the development of a culture that promotes transparency. Personal and subjective health policies are replaced by evidence-based policies that are not subject to frequent and, sometimes premature, change.

I invite you to actively participate in the workshop. I am confident that you will greatly benefit from the training. I wish you a pleasant stay in Cairo and look forward to further development of the national health accounts function in countries of the Region.