It is very encouraging to see the continued interest demonstrated by returning and new participants at the NHA Symposium. The NHA continues to gain ever-increasing acceptance and to have a greater impact on health financing policies as more countries conduct the general NHA and/or the various subanalyses. The Symposium serves as a unique opportunity for policymakers, country experts, and health economists to learn from each other about the benefits of NHA studies, NHA policy relevance, and latest developments.

The Symposium this year focuses on:

- Global NHA findings and trends,
- Subanalyses of NHA in such areas as HIV/AIDS; malaria; child health; reproductive health; and dengue fever,
- The role of networks in institutionalizing NHA, and
- Six regional NHA network overviews, with selected country presentations

The co-sponsors of the Symposium, the Swedish International Development Cooperation Agency (Sida) and the United States Agency for International Development (USAID) funded Partners for Health Reformplus (PHRplus) Project, thank you for your continued interest and participation in the Symposium. The presence of many of you here has been made possible by the generous sponsorship provided by other collaborating organizations such as: UNAIDS, the World Health Organization, the World Bank, Novartis, and SOROS-OSI. We hope this year’s Symposium serves as a forum to allow for the sustained use and advancement of NHA globally.
What is National Health Accounts?

NHA is a standard set of tables that present various aspects of a nation’s health expenditures. NHA encompasses total health spending in a country – including public, private, and donor expenditures. In addition to determining how much each of these financing sources spend on health, NHA carefully tracks the flow of funds from one health care actor to another, such as the distribution of funds from the Ministry of Health (MoH) to each government health provider and health service. In short, NHA measures the “financial pulse” of national health systems and answers questions such as:

- Who in the country pays for health care? How much do they spend and on what types of services?
- How are funds distributed across different health services?
- Who benefits from health expenditures?

The flexibility of the NHA framework also allows for analysis of data on targeted populations or disease-specific activities, such as health expenditures related to maternal and child health or HIV/AIDS.

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 information that is valuable to policymakers, such as status reports on current use of financial resources, the monitoring of health expenditure trends over time, and globally accepted indicators to allow for comparison of the country’s health system performance relative to 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 among 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 numerous countries worldwide. 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.

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.
Regional NHA Networks

NHA networks have been created in various regions around the world. Such networks are composed of countries with similar socioeconomic backgrounds, language, and health issues. Generally speaking, a network convenes several times a year, and brings together country NHA teams and policymakers. Regional meetings offer opportunities for training and cross-country sharing of NHA experiences and lessons-learned. Also, such forums have allowed participants to work together to find solutions to common regional problems faced with NHA implementation. Six major regional networks exist: 1) Middle East and North Africa (MENA), 2) East and Southern Africa (ESA), 3) Latin America and Caribbean (LAC), 4) Asia-Pacific Health Economics Network (APHEN), 5) Commonwealth of Independent States (CIS) and 6) West and Central Africa (WCA).

What does it take to implement NHA?

The key ingredients for successful implementation of NHA are political will and the commitment of senior decision makers. It is their interest in this policy tool that will provide the impetus for the adoption of NHA in their country. A buy-in from top decision makers will result in concrete action, such as allocation of personnel and financial resources for the NHA activity, which are vital to the effort's sustainability. Institutionalization of NHA is necessary; of the countries around the world that have conducted NHA, only about one-third conduct them on a regular, sustained basis. Though this is a seemingly small number, many countries are now prioritizing and taking serious steps towards institutionalizing NHA.

For the success of NHA, an on-going tête à tête between policymakers and the NHA team is necessary. This interaction is crucial, in that the policy tool should be flexible enough for addressing specific policy concerns and for sub-sector analysis. NHA technical teams should represent the entire national health sector—they should include members from the private and public sector as well as parastatal organizations. The team’s tasks will include collecting data, defining expenditure boundaries, analyzing the data, and interpreting the results for policymakers. Staunch support from policymakers is also needed so that the NHA team may collect data on an annual basis from various entities—in other words; a legal infrastructure has to be created through which data can be collected annually. NHA is a success when it is ultimately integrated into the country’s System of National Accounts and is produced as part of the country’s national accounts reporting process annually. Another measure of success is when the data NHA produces are used to implement meaningful and effective reforms in the health sector. Over the years, NHA data will also allow for trend analyses and monitoring of the impact of various interventions.

The international standardization of NHA allows for cross-country comparisons. So that NHA can be relied upon for good national policy decisions, countries that use the methodology must ensure that the data fed into it are as complete, accurate, and consistent as possible. To make cross-country comparisons, data must also conform to international standards and definitions. This demands financial transparency among agencies, both public and private, and investment in the development of data tracking and reporting systems, accounting systems, and associated activities, such as household surveys. Policymakers will need to be made more aware of NHA findings and especially their relevance to policy formulation. Only as NHA can prove its usefulness, will it continue to gain adherents.
AGENDA

INVoLLVViNnG  LLeaDDeRRss,,  IImmPPAACCTTiINnG  PPOOLLiCCY::
TRRAACCKKiINnG  InnvVeEsSTTMMeENnT  IINN  PPRRIoRRiITTYY  HHEEAlLLTTHH  CCAARREE

PRE-SYMPOSIUM: July 6, 2005
5:00-7:00pm  Registration (Hallway outside of Salon Ducal)

DAY ONE: July 7, 2005 (All plenary sessions will be held in the Salon Ducal B+C)
8:00-9:00am  Registration (Hallway outside of Salon Ducal)

9:00-9:20am  Welcoming Remarks:
Karen Cavanaugh, USAID; Peter Iveroth, Sida (Ducal B+C)

9:20-9:30am  Objectives and Overview of Agenda
Roselyn Ramos, PHRplus (Ducal B+C)

9:30-10:30am  1st Keynote Session
Dr. Paul De Lay, UNAIDS; Hon. Charity Ngilu, Kenya Minister for Health, to be introduced by Peter Iveroth, Sida (Ducal B+C)

10:30-11:00am  Concept of NHA and its Applications
Stephen Musau, PHRplus (Ducal B+C)

11:00-11:20am  Break (Ducal A)

11:20-11:40am  NHA 10 Years Later
Anders Anell, IHE (Ducal B+C)

11:40-1:20pm  Expenditure Tracking for Millennium Development Goals and Other Health Priorities (Ducal B+C)
Panel Chair: David Evans, WHO
- AIDS National Spending Assessments
  Jose Izazola, UNAIDS
- NHA Malaria Subanalysis: Rwanda Field Work and Guidelines Development
  Yann Derriennic, PHRplus
- NHA Reproductive Health Subanalysis
  Tania Dmytraczenko, PHRplus
- Expenditure Tracking on Dengue
  Don Shepard, Brandeis University

1:20-2:45pm  Lunch (Hotel Restaurant)
2:45-4:15pm  Parallel Panel Sessions

1. Embedding NHA into Routine Information Systems (Salon Bergara)
   Panel Chair: Nancy Pielemeier, Abt Associates Inc.
   - NHA in Mexico and the National Health Information System – Maria Fernanda Merino Juarez, MOH Mexico
   - Egypt NHA
     Hala Massekh, MOH Egypt
   - Linking NHA to the budgeting framework
     Charles Waza, MOH Rwanda

2. Beyond National Level Resource Tracking (Salon Condal)
   Panel Chair: Michael Borowitz, Open Society Institute
   Discussant: David Evans, WHO
   - A.K. Nandakumar, Brandeis University
   - Using Health Expenditures to Measure Additionality
     Charu Garg, WHO
   - Tracking Attainment of the Abuja Declaration Goals for Government Expenditure
     Nathalie Van de Maele, WHO

4:15-4:45pm  Break

4:45-6:30pm  Plenary Panel – Regional Comparative NHA (Ducal B+C)
(Other regions will be covered in the parallel sessions)
Panel Chair: Peter Iveroth, Sida
1. Lessons from Implementation of the System of Health Accounts in Thirteen OECD Countries
   Eva Orosz, OECD
2. Regional Comparative NHA: Eastern Mediterranean Region – Hossein Salehi, WHO/EMRO
3. Regional Comparative NHA: Africa
   Takondwa Mwase, PHRplus
4. Regional Comparative NHA: Latin American and Caribbean Countries (LAC)
   Amparo Gordillo, WHO/PAHO

8:00-9:00  Reception (Museu Picasso)
DAY TWO: July 8

8:30-8:35am  Greetings, overview, and announcements  
(Ducal B+C)

8:35-09:05am  2nd Keynote Session  
(Ducal B+C)  
Dr. Joseph Newhouse, Harvard University: “Expanding the Role of NHA in Policy Applications: Lessons Learned and New Areas of Exploration” to be introduced by Karen Cavanaugh, USAID

9:05-10:55 Parallel Plenary: Development in Estimation Techniques  
(Ducal B + C)  
Panel Chair: Kei Kawabata, World Bank  
1. Methodology to Estimate a Time Series of Out-of-Pocket Expenditures  
   Magdalena Rathe, Fundacion Plenitud  
2. Measurement of Expenditure on Pharmaceuticals  
   Patricia Hernandez, WHO  
3. Estimating Expenditure on Long Term Care  
   Manfred Huber, OECD

Parallel Plenary: Methodological Developments in NHA Subanalysis  
(Salon Bergara)  
Panel Chair: Karen Cavanaugh, USAID  
1. Boundary Issues for Conducting Subanalyses –  
   Dan Waldo, World Bank  
2. Implementation of Recommended Producer’s Guide Tables –  
   Peter Berman, World Bank  
3. NHA Child Health Subanalysis  
   Takondwa Mwase, PHRplus

10:55-11:25 Break  
(Ducal A)

11:25-12:05  NHA Networks – Role in Regional Institutionalization  
(Ducal B+ C)  
Anna Glenngård, IHE and Par Eriksson, Sida

12:05- 1:20 Parallel Panel Discussions for Regional NHA Networks (status and latest developments in each network)

1. Africa Region  
   Panel Chair: Par Eriksson, Sida
   - Capturing General Health and HIV/AIDS-specific Expenditures in Zambia, 2002  
     Felix Phiri, MOH Zambia
   - Developing Use and Institutionalization of NHA: Lessons and Perspectives from Zimbabwe  
     Jeff Tshabalala, MOH Zimbabwe
   - Mauritius NHA FY 2001-2002  
     Yogendra Nath Ramful, MOH Mauritius
2. **Latin America and Caribbean (LAC) Region (Salon Ducal B + C)**

   **Panel Chair: Karen Cavanaugh, USAID**
   - Methodology for the development of a System of NHA for Costa Rica
     **Carlos Carillo, Central Bank of Costa Rica**
   - Regional Health Accounts in La Libertad, Peru
     **Marco Zegarra, MOH Peru**
   - NHA in Reproductive Health and Gender Equity, Mexico 2003
     **Leticia Avila Burgos, INSP**

3. **Commonwealth of Independent States (CIS) Region (Salon Condal)**

   **Panel Chair: Forest Duncan, USAID**
   **Discussant: Jack Langenbrunner, World Bank**
   - Armenia Mobilizes First NHA
     **Ara Ter-Grigoryan, MOH Armenia; Tatyana Makarova, USAID/Armenia Social Transition Project**
   - NHA in Georgia – Results, Vision and Challenges
     **Levan Jugeli, Ministry of Labor, Health and Social Affairs**
   - NHA: Ukrainian Vision
     **Yuriy Vitrenko, MOE Ukraine**

1:20-2:45 Lunch *(Hotel Restaurant)*

2:45-4:00 Parallel Panel Discussions for Regional NHA Networks (status and latest developments in each network)

4. **Middle East and North Africa (MENA) Region (Salon Bergara)**

   **Panel Chair: Akiko Maeda, World Bank**
   - NHA in Morocco, 2001
     **M. Driss Zine-Eddine El-Mridissi, WHO- EMRO**
   - NHA in Tunisia, Year 2000
     **Chokri Arfa, NIPH**
   - Yemen NHA, 2003
     **Mansour al-Lozi, MOH Yemen**

5. **Asia Pacific Region (Salon Condal)**

   **Panel Chair: Dr. Dorjsuren Bayarsaikhan, WHO/WPRO**
   - Reproductive Health Account for the State of Karnataka:
     **Dr. Vinod Annigeri, CMDR**
   - National Health Account in Thailand: Institutionalization Experiences
     **Walaiporn Patcharanarumol, IHSS**
   - TBD
6. Organization for Economic Cooperation and Development (OECD) (Salon Ducal B + C)
   Panel Chair: Eva Orosz, OECD
   - Estimating Private Expenditure in System of Health Accounts Terms in Spain
     Jorge Relaño Toledano, MOH, Spain
   - Implementation of System of Health Accounts in Norway as Satellite Accounts within the National Accounts Framework
     Ann Lisbet Brathaug, Statistics Norway
   - EU Project on Labor Accounts
     Markus Schneider, BASYS Germany

4:00-4:30 Key Conclusions and Next Steps
Dr. Paul De Lay, UNAIDS

4:30-4:45 Final Remarks
Karen Cavanaugh, USAID; Peter Iveroth, Sida
The Duques de Bergara Hotel is located in the heart of Barcelona, a short walk from Plaza de Catalunya and the Ramblas, which are the two best-known spots in the city. The hotel is housed in an art-nouveau building dating from the end of the nineteenth century.

Duques de Bergara
Bergara 11, 08002 Barcelona, Spain
Head Office:
Phone 93.236.00.00

Keynote Addresses

Owing to their substantial contributions to the field of health finance and policy, it is with great pleasure that we welcome

Dr. Paul DeLay, UNAIDS, the Hon. Charity Ngilu, Kenya Minister for Health, and Dr. Joseph Newhouse, Harvard University, as the keynote speakers to the 2005 NHA Symposium.

♦♦♦♦♦

Dr. Paul DeLay, UNAIDS

Dr. Paul De Lay is the director of the Department of Monitoring and Evaluation within the Executive Office of UNAIDS. He served as senior advisor to USAID on HIV/AIDS and as chief of USAID’s HIV/AIDS Division, and he practiced clinical medicine for 13 years. He is a physician from the University of California and holds a Diploma of Tropical Medicine and Hygiene from the London School of Hygiene and Tropical Medicine.

Keynote Presentation Abstract:

HIV and AIDS Resource Tracking: Lessons Learned and Next Steps

UNAIDS has significantly increased its capacity to a) monitor the level and nature of spending on AIDS programs in low- and middle-income countries, b) track global flows for vaccines and microbicides and c) account for official development assistance funds for HIV/AIDS. The collection of timely and reliable information specifically for HIV/AIDS remains a challenge.

UNAIDS will strengthen the countries’ capacity to monitor expenditures for HIV and AIDS to: i) improve the coordination of the national response to AIDS in agreement of our Three ones policy; ii) assess the fulfillment of the required funds for a global comprehensive response; iii) support the provision of public expenditure indicators for the 2006 review of the UNGASS declaration of commitment.

National accounting frameworks for HIV and AIDS (as stand-alone exercises or within NHA) will continue to be promoted as the major tool for National AIDS Spending Assessments (NASA), ensuring consistency with the international classification of health accounts, though emphasis will be placed also in tracking non-health functions. Partnerships with existing NHA technical regional networks or similar will be sought or created.

This presentation will show estimates of global flows and country data examples with relevance for the international public policy development.
The Honorable Charity Ngilu, Kenya Minister of Health

The Honorable Charity Ngilu is the Minister for Health in Kenya. Hon. Ngilu has had an illustrious career in politics and business since 1988: She has been a member of Parliament for 13 years and one of the champions of multi-party democracy in Kenya. In 1997 she was the first woman presidential candidate in sub-Saharan Africa in a political landscape dominated by men. Though she did not win the seat, she made a big impression and it was not surprising that in 2002 she would be one of the key leaders in a coalition (the National Rainbow Coalition) of political parties that removed the previous ruling party from power. The only woman in the senior leadership of the coalition, she was affectionately known as “mama rainbow”. After forming the new government in 2003, she was appointed Minister for Health and has been in that position since.

Hon. Ngilu has also served in various other capacities, including chairperson of the Women Political Alliance, a coalition of civil society organizations aimed at increasing women’s representation in political leadership, member of Parliamentarians for Global Action, serving as one of the six presidents heading different committees elected by global membership, Conflict Resolution in Burundi and member of Time Global Health Advisory Board.

Keynote Presentation Abstract:

Policy Use of NHA in Kenya

National Health Accounts has been one of the most valuable sources of information to the policy-making process in the Ministry of Health in Kenya. Kenya has now completed two rounds of NHA and the most recent that covered the fiscal year 2001/2 also included the HIV/AIDS subanalysis. The Ministry is now in the process of expanding the NHA exercise to include analysis of health expenditures on child health as well as reproductive health. These two health intervention areas are key to the Ministry’s endeavours to achieve the millennium development targets within our constrained resource setting. The Ministry is also taking the NHA results a step further and using them to look at the cost efficiency of our hospitals. This is part of our efforts at institutionalizing the NHA in the Ministry’s routine planning and resource allocation processes. As the country grapples with the challenges of introducing social health insurance, the NHA has been a source of information into the design process.
Keynote Addresses Continued

Dr. Joseph Newhouse, Harvard University

Joseph Newhouse, Harvard University’s John D. MacArthur Professor of Health Policy and Management, is head of the Interfaculty Initiative on Health Policy. He also directs the Division of Health Policy Research and Education, which administers Harvard’s PhD program in health policy. He edits the *Journal of Health Economics* and has served as a commissioner of the Medicare Payment Advisory Commission. He is a member of the Institute of Medicine of the National Academy of Sciences and a fellow of the American Academy of Arts and Sciences. He was the first recipient of the David Kershaw Prize of the Association of Public Policy Analysis and Management and has received the Distinguished Investigator Award of the Association for Health Services Research.

Keynote Presentation Abstract:

National Health Accounts

National health accounts have many uses. Within a given country, they most obviously serve to document the growth of total spending, as well as its division about providers of medical goods and services and its sources of financing. And comparisons across countries, if definitions are similar and data are reliable, serve to suggest places to look for more efficient ways of delivering services.

I wish to make four points today: 1) the health accounts monitor spending through the market. This is necessary and important, but is much more useful if something can also be said about both non-market inputs as well as the outputs bought by those market and non-market inputs. Among non-market inputs, time devoted to one’s own health and informal care within the household are both likely important. 2) In my view output is much more meaningfully measured by disease or episode than by provider or unit of service. Otherwise it is hard to see how improved quality of medical care can be incorporated. Until the value of the health and quality of life bought by the medical spending is estimated, the accounts are really more medical accounts than health accounts. Accounting by disease raises issues of the arbitrary allocation of joint costs, but there are arbitrary judgments that must be made in the current accounts. 3) One of the main uses of the health accounts that I have personally made is to draw an inference that much of the increased spending on medical care in developed countries is caused by technological change. If this inference is correct, it makes accounting by disease or episode more urgent; otherwise spending increases tend to be treated as inflation or increases in rents to providers. 4) Others have drawn the inference that medical spending differs across the developed countries because of differences in unit prices rather than the real quantity of services. This may be correct, but without a measure of quality it remains in my view a hypothesis. My conclusion from this is that the agencies charged with maintaining the health accounts should consider satellite accounts that account for non-market inputs and attempt to adjust for changes in quality.
**DAY 1**

**Welcoming Remarks**  
Karen Cavanaugh, USAID; Peter Iveroth, Sida

- ♦♦♦♦♦

**Objectives and Overview of Agenda**  
Roselyn Ramos, PHRplus

- ♦♦♦♦♦

**Concept of NHA and its Applications**  
Stephen Musau, PHRplus

NHA as a policy tool is being increasingly used in developing countries to design health policy. The easy-to-understand NHA tables provide valuable financial expenditures that allow policy makers to design pro-poor policies as well as monitor and evaluate the effectiveness of their existing policies. NHA determine “who” spends on health care, “how much” and “on what” type of services. The presentation includes an introduction to the NHA concepts, and a brief glimpse of its methodology. Highlights of how the health expenditure data influence policy dialogue are also included in the presentation.

- ♦♦♦♦♦

**NHA 10 Years Later**  
Anders Anell, IHE

NHA is still relatively new in many low- and middle-income countries. However, during the past ten years a number of low- and middle-income countries have developed NHA, thanks to the support given by donors and multilateral organizations. Previously, these countries possessed only limited information on health care expenditures made by government, households, donors, and others in their countries. Since the mid-1990s, six regional NHA networks have been established. Today, about 80 countries around the world have developed and implemented NHA and among those approximately half have taken steps towards institutionalizing NHA. In some of the OECD countries NHA has been developed on a routine basis for many years and great efforts have been made to make these accounts coherent. Collaboration between interested partners (such as donors, multilaterals and international organizations) has been successful in terms of supporting countries in implementing NHA and in terms of developing a standardized methodology suitable for low- and middle-income countries, and compatible with other methods.

- ♦♦♦♦♦
AIDS National Spending Assessments  
Jose Izazola, UNAIDS

The UNAIDS Global Resource Tracking Consortium recognizes several tools for National AIDS Spending Assessments (NSA); only the stand-alone National AIDS Accounts (NAA) and the NAAs within National Health Accounts (NHA), developed by SIDALAC and PHRplus respectively, use an NHA framework.

SIDALAC adapted in 1997 the NHA framework for AIDS, as stand-alone projects; it includes non-health functions. Twenty-two LAC and West African countries, for a total of 99 country/year estimates, have NAAs to date. PHRplus and its predecessor project have since 1996 worked in more than 15 countries to produce NHAs. Their first NAA within NHA was conducted in Rwanda in 1999. Presently, Kenya, Rwanda and Zambia have NAAs embedded within NHAs.

The approaches yield equivalent results; however, some differences are noteworthy. The most salient is that financial sources and agents are presented combined by NAAs for AIDS policy formulation facility. The other difference is that NAAs include diagnosis and treatment of STIs as prevention functions because of being personal services with public health benefits, very relevant for AIDS policies.

NSAs are critical to monitor the 3x5 initiative, the U.S. PEPFAR, to test for additionality for the Global Fund and to provide indicators for UNGASS. Country/regional results will be presented.

National Health Accounts, Malaria Subanalysis: Rwanda field work and guidelines development.  
Yann Derrienic, PHRplus

At the end of 2004, 107 countries and territories had areas at risk of malaria transmission. Some 3.2 billion people lived in areas at risk of malaria transmission. An estimated 350–500 million clinical malaria episodes occur annually. About 60% of the cases of malaria worldwide, about 75% of global falciparum malaria cases and more than 80% of malaria deaths occur in sub-Saharan Africa, and it is the No. 1 killer of children under five in the region. In endemic African countries, malaria accounts for 25–35% of all outpatient visits, 20–45% of hospital admissions and 15–35% of hospital deaths, imposing a great burden on already fragile health-care systems. It has been estimated that self-medication is used in more than 70% of fever episodes in Africa, thus having a significant impact on household health expenditures.

Following the development of the NHA HIV/AIDS subanalysis, interest has grown in using the NHA approach to track malaria expenditures. Working for the Financing and Resource Mobilization working group of the Roll Back Malaria Partnership, PHRplus is collaborating with RBM/WHO and EIP to develop and field test a malaria subanalysis. The subanalysis will be codified in standard guidelines. These guidelines will reflect the experience of testing the NHA malaria subanalysis in Rwanda and the Philippines.

The presentation will cover the progress so far; the drafting of five out of seven chapters of the guidelines and the Rwandan field work where the data collection is being coordinated with the Rwandan government and WHO/AFRO’s socioeconomic impact of malaria study.
NHA Reproductive Health Subanalysis  
Tania Dmytraczenko, PHRplus

Developing countries are now being asked to estimate resource requirements to achieve disease-specific targets outlined in the Millennium Development Goals and to report on how funds have been used for that purpose. The National Health Accounts methodology was adapted to track reproductive health expenditures for Rwanda, Egypt, and Jordan for the year 2002. These three countries provide a broad range of reproductive health care services.

Reproductive Health (RH) spending as a proportion of total health expenditures varies from country to country and the financing sources are equally varied. Jordan, where RH services are provided free of charge to users, evidence shows a comparatively low donor and household contribution to financing of RH. Conversely, in Rwanda, households pay close to 50% of all RH curative care expenditures. This raises concerns about the burden placed on households to finance these services, particularly as 60% of the population is below the poverty line and the government provide care free of charge. In Egypt, households are the largest contributor to total RH spending accounting for about 45%, while donors account for only about 3%.

♦♦♦♦♦

Expenditure Tracking on Dengue  
Donald Shepard, Brandeis University

The Pediatric Dengue Vaccine Initiative (PDVI) was created in 2002 to accelerate the development and use of a safe and effective vaccine against dengue, a painful and sometimes fatal viral illness transmitted by mosquitoes. In Southeast (SE) Asia alone, the disease causes an estimated 27 million infections, 6 million illnesses, 400,000 hospitalizations, and 3000 deaths annually. Dengue has no specific treatment, highly effective prevention does not exist, and control is only partially effective. Preliminary projections for SE Asia, based on projected vaccine characteristics, suggest that the gross cost per capita (of all ages) of the vaccination program would be US $0.15. Due to projected savings in dengue treatment, the net cost per capita would be only $0.02 (87% below the gross cost). The cost per disability adjusted life year saved by this pediatric vaccine would be $50, making the potential vaccine highly cost-effective.

Actual expenditure burdens are being assessed to refine and guide vaccine development. They relate to control (primarily surveillance and inspection and control of potential breeding sites), treatment, and the economic consequences of disease. PDVI is leading an international research collaboration to measure each of these components. Analyses of control costs with Dr. Jose Suaya found that country spent $6 million ($0.24 per capita) annually. Studies of illness burden are currently underway in 9 countries, of which 6 are in Latin and South America (Brazil, El Salvador, Guatemala, Nicaragua, Panama, and Venezuela) and three in SE Asia (Cambodia, Malaysia, and Thailand). For example, as part of the Malaysia study, Prof. Lucy Lum and colleagues have interviewed and ascertained services use by 638 hospitalized patients near Kuala Lumpur. By developing and distributing a common protocol and database, PDVI is seeking to reduce inaccuracies due to underreporting and varying definitions across cases. PDVI is involving key stakeholders (donors, governments, and vaccine manufacturers) in oversight of studies to help shorten the translation from research to products, policies, and practices.
Embedding NHA into Routine Information Systems *(Salon Bergara)*
Panel Chair: Nancy Pielemeier, Abt Associates Inc.

---

**NHA in Mexico and the National Health Information System**
Maria Fernanda Merino, MOH Mexico

In 2001, the Ministry of Health of Mexico presented the National Health Programme 2001-2006, the democratization of health. This program highlighted the challenge of creating a system that provides financial equity. The institutionalization of a standardized System of National and State Health Accounts (SICUENTAS) as part of the National Health Information System (NHIS) is proposed as a strategy to strengthen the stewardship function of the federal and state Ministries of Health. The system will provide information for decision makers and serve to conduct follow-up of programs and processes in order to improve management of health services and contribute to the accountability process.

The HIS was originally structured around the production and publication of national statistics. The different components were not linked. Beginning in 2003, an extensive reorganization of the HIS was launched to establish a NHIS based on the production of health with the family and individuals at the core of the system – in this sense, resources (financial, human, infrastructure) are at the beginning of the process. Then comes the actual provision of services, at both the individual and community level. At the end are the outputs of the system. SICUENTAS is now an integral part of the NHIS, constituting one of the five subsystems of the NHIS. In technical terms, the OCED/WHO methodology has been adapted to better reflect the reality of the Mexican health system while maintaining the comparability of information produced. This is reflected in the production of a manual being used to train the states.

The SICUENTAS has produced valuable evidence used in the formulation of the financial architecture needed for the creation of the System of Social Protection in Health. However, in order to ensure that the activities of SICUENTAS remain as part of the NHIS, a legal framework for the reporting of health expenditure was introduced as part of the reform of the Health Law. This in turn is associated with the way the states must report the funds being spent for the Seguro Popular, contributing to the reform of the Health System.

---

**Egypt NHA 2005**
Hala Massekh, MOH Egypt

Egypt has just completed a third round of NHA for the fiscal year 2001-2002 (previous years of estimation were 1991 and fiscal year 1994-1995). Egypt would like to use the Budget Tracking System (BTS) to capture curative, preventive, and possibly different levels of care in the next round of NHA to provide better analysis and functional disaggregation. The presentation will also provide a brief summary of findings.

---

**Linking NHA to the budgeting framework**
Charles Waza MOH Rwanda

Rwanda NHA is being institutionalized by embedding it into the Medium Term Expenditure Framework (MTEF) and the regular budgeting processes of the Ministry Of Health. This presentation will discuss key highlights from this process, show the points at which NHA help defining MTEF and budget priority areas and actions, and discuss the mapping of the budgetary codes to NHA codes and some key issues which remain to be addressed.
Beyond National Level Resource Tracking *(Salon Condal)*

Panel Chair: Michael Borowitz, Open Society Institute
Discussant: David Evans, WHO

♦♦♦♦♦

A.K. Nandakumar, Brandeis University

*Abstract to be disseminated at Symposium*

♦♦♦♦♦

Using Health Expenditures to Measure Additionality
Charu Garg, WHO

The issue of tracking resource flows for health has been on the international agenda for many years. More recently, some donor mandates require countries to provide evidence that the funds they receive for a particular disease supplement those already available – in other words, that the government and other donors are not reallocating resources for purposes other than combating the priority for which resources are given (called “additionality”).

The objective of this paper is to identify definitions and indicators of additionality that are feasible for countries to measure using available data. Results are presented for three countries (Thailand, Honduras and Rwanda) that have received Global Fund grants for HIV/AIDS, TB or malaria.

All the countries completed the study using the information for HIV/AIDS; however, the study indicated that the methods can be applied to other diseases as well. While the Rwanda study did not collect information on the year the Global Fund grants were received, they used trend analysis to see the effect of additional donor resources on the expenditures on AIDS. Using data from National AIDS Accounts, while Thailand and Rwanda could prove additionality, Honduras could not. It was found that government money for HIV/AIDS fell in Honduras after the receipt of global fund grants. Additional indicators showed that in Thailand both the government and donor resources increased for ART, but that both government and donor resources reduced for preventive activities. The government resources increased for ART treatment in Honduras but fell in Rwanda, whereas for preventive care in both Honduras and Rwanda the government commitment increased. One of the important conclusions that emerged from these studies was that good data on government, donor and private expenditures (all to be measured separately) are required to see the real impact of additional donor resources on domestic commitment.

♦♦♦♦♦

Tracking attainment of the Abuja Declaration Goals for Government Expenditure
Nathalie Van de Maele, WHO

In the Abuja Declaration of 2001, the Organisation of African Unity set a target of 15% of the budget to be spent on health. Three years have since passed and there is now enough time, allowing for national budgeting and spending cycles to see if there is progress in reaching this target. In this regard, the National Health Accounts (NHA) framework is very well suited as a monitoring methodology. However, the text of the declaration is not specific, and there are 2 questions which arise:

1. should it be budget or expenditure tracking to monitor progress in attainment of the goal?
2. does the 15% include budget support from external resources or purely domestic funds?

Based on the spirit of the declaration to increase the country's financial commitments to health, one can then start building indicators, using the NHA framework and country data. This talks presents the most recent and largest data set available using standard NHA indicators to track progress in attaining this target. It will also present future plans for improving the relevance and timely availability of data.
Lessons from Implementation of the System of Health Accounts in Thirteen OECD Countries
Eva Orosz, OECD

In 2003 and 2004, the OECD Secretariat, along with experts from thirteen member countries, carried out a comparative study based on the initial results from the implementation of the System of Health Accounts. The presentation highlights—both from a health policy and methodological point of view—some of the key findings of this project. As one of the key innovations of the SHA is the distinction made between function and provider, the results presented have been selected with a special focus on information that can only be obtained by applying a functional approach. The first part of the presentation provides a picture of how the main types of services (in-patient care, outpatient care and pharmaceuticals) are financed and provided across OECD countries. It highlights differences between countries in the public–private mix of financing, not only for the health sector as a whole, but also for the main types of services. This enables a better understanding of the role of the public and private sector. Through the cross-classification of health expenditure by provider and function, a more complete picture about the multi-functionality of hospitals can be discerned. Distinguishing between hospital expenditure and in-patient care, the study revealed that in-patient curative-rehabilitative care occupies a smaller share of health expenditure than is usually assumed, with out-patient care consuming a similar or even greater proportion of the financial resources in most of the countries examined.

The second part of the presentation summarises the key methodological lessons from the SHA implementation, highlighting the most important deviations from the International Classification for Health Accounts in current national accounting practices, as well as some of the key issues that require further consideration and refinement of the ICHA. Finally, the current priorities in SHA-related work of the OECD are presented.

Regional Comparative NHA: Eastern Mediterranean Region
Hossein Salehi, WHO/EMRO

The first round of NHA was launched by the WHO, WB, and USAID in the Eastern Mediterranean region in 1999. Six more inter-country NHA training workshops have been organized since then. Egypt, Iran, Jordan, and Morocco have produced at least two rounds of NHA. Djibouti and Yemen are producing a second round, while Tunisia has updated its account in 2004.

NHA policy penetration has been relatively high in some countries (e.g. Iran, Morocco), minimal in others. NHA profiling has also been used for health care financial needs assessment in the cases of Afghanistan and Iraq.

Although there is a growing interest in NHA in the region, the support for development and institutionalization of NHA by policymakers is generally weak. The production and use of NHA is for most part a donor-driven activity in the region. Policymakers are concerned about the level of spending, the share of out-of-pocket expenditure, and the cost of producing the account, especially the cost of conducting the households’ expenditure survey. In addition, some policymakers have reservations about the transparency and culture that would be promoted through the course of NHA development.

The emphasis for the development of NHA in the region has shifted from that of capacity building, a supply-side approach, to a demand-side approach through promotion and creation of health policy units in the MOHs. It is hoped that the health policy units will demand financial data including NHA for policy analysis, formulation, and evaluation.
This presentation synthesizes key findings from a few selected NHA studies (Kenya, Namibia, Nigeria, Rwanda, and Zambia) conducted in sub-Saharan Africa. Health expenditures in the five countries as a percentage of GDP fell between 1998 and 2002. There was serious inadequacy of financial resources available for health systems among the five countries. Only one country, Namibia, could afford to spend more than US$34 per capita per annum, the amount required for providing essential health interventions as stipulated by the Commission on Macroeconomics and Health in its report of 2001. Spending from public sources was also critically low, falling from US$22 to US$18 between 1998 and 2002. Two years after the Abuja Declaration, government expenditure on health as percentage of national budgets remained almost constant and far away from the 15% target. To reach the CMH and Abuja targets, huge amounts of resources need to be allocated to health, and they cannot be raised domestically. Furthermore, donor contributions, which are expected to offset the low government and high out-pocket spending by households on health remained constant between 1998 and 2002. Household through direct out-of-pocket spending was the major source of financing health (except in Namibia a low of 5% of total health spending to a high of 67% of total health spending in Nigeria). As the continent continues to face the highest burden of disease in the world, high direct out-of-pocket contributions raise a serious challenge to improving the health status of individuals and populations as user fees tend to dissuade the very poor (the majority in sub-Saharan Africa) from utilizing health services. Should this situation continue, the achievement of the MDGs in sub-Saharan Africa will remain elusive. As such, there is an urgent need for massive investments in health by donors, governments and firms through a variety of prepaid schemes.

Regional Comparative NHA: Latin American and Caribbean Countries (LAC)
Amparo Gordillo, WHO/PAHO

National Health Expenditure (NHEx) estimates for the Latin American and Caribbean (LAC) region were first prepared and made available in the late 1990s. By 2005, most countries of the LAC region had produced NHEx estimates. However, in only a few LAC countries have these estimates been incorporated into national statistical publications. Currently, LAC countries are at varying stages of harmonizing and institutionalizing the production of NHEx estimates. In the LAC region, health expenditure estimates have been derived from health expenditure and financing country studies, PAHO’s NHEx estimates based on the functional classification of expenditures, Harvard/National Health Accounts/SHA studies, and in the last few years also through Health Satellite Accounts that try to incorporate all previous estimates into one national estimate. The Caribbean region has developed NHEx estimates based on the functional classification of expenditures for all countries in the sub-region. Countries in Central America and the Andean region have developed NHEx estimates based on the Harvard/NHA/SHA methodologies. Few countries are in the process of developing Health Satellite Accounts. However, most countries in the region are working on developing comparable estimates and advocating for institutionalization of the preparation of NHEx estimates.

This paper presents a detailed analysis of the advances in the evolution of the preparation of health expenditure estimates in the LAC region.
Methodology to Estimate a Time Series of Out-of-Pocket Expenditures
Magdalena Rathe, Fundacion Plenitud

National Health Accounts is a comprehensive and widespread methodology to estimate flows of funds in the health sector. In order to estimate out-of-pocket expenditures, most countries use existing household surveys or design-specific ones. These results usually refer to a specific moment in time, and do not take into account possible seasonal differences. Extrapolation for different years may diminish the accuracy of the data by the time elapsed from the moment of the survey. Consequently, there is a need for triangulating this information with other sources, which could make possible the construction of a time series.

The objective of this study was the development of a methodology to estimate a time series of health care out-of-pocket expenditures, using triangulation of household data surveys with data on apparent drug consumption and health services production. The authors developed a methodology to estimate the household out-of-pocket health expenditures, particularly on drugs and health services. This methodology was tested with data from Nicaragua and is presently being tested in the Dominican Republic, two LAC countries with similar development characteristics.

After compiling the data, it was possible to obtain a time series of several years that showed consistency with the households’ health expenditure surveys undertaken in two specific moments. Two coefficients were constructed (a) household health expenditures as a percentage of the total households’ final consumption; (b) household expenditures as a percentage of GDP.

The methodology proved useful to estimate time series of out-of-pocket household expenditures to be used in NHA. The use of this methodology can contribute to lowering the costs of the NHA exercise by extending the time elapsed between one household survey and the next one.

Measurement of Expenditure on Pharmaceuticals
Patricia Hernandez, WHO

Measured pharmaceutical spending is high, in absolute and relative terms, justifying an in depth analysis. Large price variations and restrictions of access are other social concerns.

Measurement challenges are multiple at the level of individual nations and across nations, which express the patterns of use by demographic, socioeconomic, epidemiological characteristics and clinical profiles, handled through various health system and financing structures. The System of Health Accounts (SHA) and the Producers Guide (PG) deal asymmetrically with essential medical services and goods in the health functions. Pharmaceuticals is in many low- and middle per capita income countries one of the most sensitive “asymmetries” as it relates to an imported commodity. Asymmetries involve various other categories and the solutions sought should preferably be comprehensive.

Two non-exclusive strategies are proposed:

i. parallel classifications, which allow both a partial and a total measurement without the need of comprehensive cross-classifications.

ii. a revamping of SHA and the PG to un-bundle functions and mode of production
The minimalist choice has begun to be implemented in the resource cost tabulation of the PG, as an implicit UN-IMF-OECD-EUROSTAT "transition" matrix. A revision of the SHA & PG function classification is desirable to ensure greater transparency, neutrality and comparability.

Through the resource cost approach, some of the findings have led to the creation of a preliminary database with a government–private split for around 180 WHO member states. A first round has been published in the World Medicine Situation 2004 by WHO. A second round is being prepared for presentation in an iHEA panel. The disaggregation price and volume required for a good analysis is far from finished. Data intended to measure retail values and spending on traditional medicines are not always contained in industrial records. As in other HA experiences, maturity of measurement will lead to more comprehensive and accurate indicators.

♦♦♦♦♦

**Estimating Expenditure on Long Term Care**
Manfred Huber, OECD

Demand for long-term care for older people is set to rise steeply in OECD countries as the baby-boom generation reaches old age. People in need of long-term care already increasingly demand high-quality services and differences in the quality and availability of services across OECD countries show some are not getting it.

This presentation highlights findings on spending differences across 19 OECD countries from a recent OECD study on "Long-term care for older people". International comparisons of long-term care systems pose multiple methodological challenges. Illustrations are provided for estimating spending broken down by type of services and source of funding. Not surprisingly, expenditures on long-term care are currently a major source of uncertainty for international comparisons of overall spending levels on health and long-term care. What are the statistical implications for spending estimates of innovative ways of providing benefits in the form of consumer directed care, care allowances, and other more indirect sources of supporting and/or funding? Is the boundary between home/community care and care provided in "institutions" getting more and more blurred? These are among the questions for which practical solutions for expenditure estimates are proposed.

The presentation draws conclusions on future data needs for policy analysis in long-term care. An update is provided about ongoing work at the OECD Secretariat for more elaborate guidelines for estimating spending on long-term care for the purpose of international comparisons in the framework of the OECD manual "A System of Health Accounts".

♦♦♦♦♦

**Methodological Developments in NHA Subanalysis (Salon Bergara)**
Panel Chair: Karen Cavanaugh, USAID

♦♦♦♦♦

**Boundary Issues for Conducting Subanalyses**
Dan Waldo, World Bank

Health accountants who prepare NHA face the same issues when conducting subanalysis. However, there are additional challenges when looking at disease specific or priority health service expenditures. Some examples include which measures of health functions are included; how are boundaries drawn and; how should data be adapted for the subanalysis. This presentation addresses these and other topics.

♦♦♦♦♦
Implementation of Recommended Producer’s Guide Tables
Peter Berman, World Bank

The recently published Guide to Producing National Health Accounts, sponsored by WHO, World Bank, and USAID, proposes a flexible framework for carrying out NHA at country level. The Guide outlines nine possible types of tables that countries could develop in a comprehensive NHA approach. Producing all nine types of tables would be quite demanding at country level. An NHA study in Turkey, completed in 2004, provides an example of how all nine tables can be done and what the different tables contribute to national health policy analysis. This study demonstrates the feasibility and usefulness of the Producer’s Guide approach.

♦♦♦♦♦

NHA Child Health Subanalysis
Takondwa Mwase, PHRplus

The general NHA methodology is being adapted to track expenditures on health care for children under the age of five. Like the general NHA, the child health subanalysis will track expenditures on curative (treatment) services, prevention and promotion programs, pharmaceuticals purchased at independent pharmacies/shops, administration, and capital formation, but it will focus on spending on services related to conditions that contribute to high morbidity and mortality among children, such as diarrheal diseases (caused by typhoid, cholera, dysentery etc.), acute respiratory infections (pneumonia etc.), tuberculosis, malaria, measles, and diphtheria. Findings from child health subanalyses will inform national policymaking and the funding decisions of international donors. The child health subanalysis will help to answer policy questions such as the following: Who is financing priority child health services? How much are they spending? On which services exactly? Findings also will serve to monitor the investment in child health against other interventions and complement the expenditure data produced by financial sustainability plans (FSPs) with respect to the monitoring of fund disbursement for EPIs.

♦♦♦♦♦

NHA Networks- Role in Regional Institutionalization
Anna Glennård, IHE; Par Eriksson, Sida

Since the mid 1990s, six regional NHA networks have been established; APNHAN (Asia Pacific National Health Accounts Network), CIS (Commonwealth of Independent States), ECSA (Eastern, Central and Southern Africa), FA (Francophone Africa), LAC (Latin American and Caribbean), and MENA (Middle East and Northern Africa).

A study by IHE/Sida during 2004/2005 examined the functioning of five regional NHA networks; APNHAN, CIS, ECSA, LAC and MENA. The overall objective was to define factors of success and/or failure for the operation of the networks. The study aimed to identify how the networks have affected the NHA processes in the member countries. Experiences of both network members (49 respondents) and representatives from donor and multilateral organisations (12 respondents) were examined.

The results from the study show that about half of the members benefit much or very much from being part of a network while only one out of four benefit little or very little. The main positive effects of the networks mentioned were improved technical and analytical capacity, improved access to data, increased use of NHA results among policymakers, exchange of experiences and results from NHA and development of links between countries.

The most common problems within the networks, given by the respondents, were differences in technical capacity, interest in NHA and organisation of work among members, while physical distance, culture, language and political differences between members seem to constitute less of a problem.

The degree of network success depends partly on the driving forces within the networks, e.g. donor driven, and partly on the interest in health accounts among network members, according to the respondents.
In Zambia, before the introduction of the NHA, it was difficult to ascertain and track how much was spent on health in the country. The NHA methodology has enabled the government to better understand who are the major financing sources of health care in the country, and to where and on what the health finances are spent. In view of the HIV/AIDS pandemic the need to undertake a study on a disease-specific expenditure was expressed by the government. This presentation summarizes how NHA was used to capture general health and HIV/AIDS-specific expenditures in Zambia in 2002. HIV/AIDS-related expenditure estimates show that households and donors are the major financiers of HIV/AIDS care. People living with HIV/AIDS spend seven times more on health care than non-HIV-infected individuals. A third of household spending on HIV/AIDS occurs at traditional healers.

Where Zimbabwe has been, where it is and where it wants to go is marked by the uses of the findings from the two NHA rounds it has completed. NHA is slowly but surely changing the health financing discourse in Zimbabwe in a number of ways. Firstly the findings of the 1999 NHA Survey excited the imagination of policymakers by revealing that the contribution by households (23%) as a percentage of total health financing was second only to general taxation (28%) in terms of significance. The other significant aspect of the 1999 NHA estimation was the opportunity it presented for the members of the technical team to explain the process of NHA to key stakeholders. In particular the engagement with stakeholders highlighted and emphasized the concrete policy uses of the tool from the stakeholders varied settings.

The findings of the 2001 NHA informed Ministry of Finance budget allocations, which included an increase of more than 400% in nominal terms. Donor contributions have declined significantly, from 13% in 1999 to 4% in 2001. The third round of NHA, using 2004 data, is underway, underpinned by institutionalisation strategies.

Following the endorsement of NHA institutionalisation at the 34th Regional Health Members Conference of the East, Central and Southern African Health Community (ECSA-HC) and advocacy of the World Health Organisation, the government of Mauritius embarked on regular NHA development. NHA production is housed in the Ministry of Health and Quality of Life. A NHA Committee comprising various stakeholders has been set up. The USAID-funded Partners for Health Reformplus project, WHO/AFRO, and ECSA-HC have provided technical support and training for NHA capacity building.

Development of NHAs for Mauritius is considered as a historical milestone that paves the way for the country achieving four objectives: tracking all health expenditures, providing an evidence base for policymaking, informing financial projections for health care and providing groundwork for the Medium Term Expenditure Framework, which includes result-based budgeting. NHA findings showed that the public sector is the major financing source and financing agent, but that out of pocket household spending also is significant (54% and 41% of total national health expenditures respectively). Donor contributions are meager (0.5%). Private facilities provide slightly more services than public ones (45% vs. 43%). Inpatient care receives slightly more spending than outpatient care (30% vs. 26%); “other” functions receive 45%.
Asia Pacific Region (Salon Condal)
Panel Chair: Dr. Dorjsuren Bayarsaikhan, WHO/WPRO

♦♦♦♦♦

Reproductive Health Account for the State of Karnataka
Dr. Vinod Annigeri, CMDR

A careful understanding of financial flows to the health sector of a country is critical for policymakers. NHA is a useful tool to provide this information. The Center for Multi-disciplinary Development Research (CMDR), Dharwad, Karnataka, India has undertaken a study jointly with Netherlands Interdisciplinary Demographic Institute (NIDI) to develop reproductive health accounts (RHA) for the state of Karnataka within the framework of the UNFPA/UNAIDS/NIDI Resource Flows project.

The present study tries to separate out the RH-related components embedded in the general health sector interventions by both government and non-government agencies. The study relies primarily on the OECD and WHO methodology for constructing the health accounts matrices. The first step in this regard was the mapping of RH system in the state, which describes and links the actors and activities in the RH system.

The mapping report, which is completed as part of the study, highlights the following.

- A sketch of the RH system of the state
- Roles played by different layers of the governments, the private sector and external agencies in funding RH-related activities.
- Actors in RH organized into four broad groups as financing sources, financing agents, health care providers and health care beneficiaries.
- Boundary issues, including in/exclusion of child health and HIV/AIDS
- The flow of funds model for Karnataka for the construction of RHA.

The report provides insight into the RH system in the state of Karnataka and attempts to figure out the RH-related components in the overall health sector of the state. The CMDR also initiated a household survey in the state to estimate private out-of-pocket expenditures on RH-related activities. Other planned surveys will cover NGOs, corporate payers, and health care providers.

♦♦♦♦♦

National Health Account in Thailand: Institutionalization Experiences
Walaiporn Patcharanarumol, IHSS

Thai NHA was first developed in 1994 by applying a simple matrix of source and spending. The major legacy was a core group of interministerial researchers who developed the second version for 1996 and 1998. Recently, an eight-year series (1994–2001) with a three-dimensional matrix of NHA was produced by modifying OECD SHA to suit the Thai health system and facilitate international comparison. NHA was gradually institutionalized and now is the responsibility of the International Health Policy Program (IHPP) and its affiliated agencies. The Health Systems Research Institute contributes to the NHA by funding local resources.

Based on a strong NHA foundation and local capacity, the National AIDS Account (NAA) was developed for 2000-2003. Moreover, NHA is a crucial foundation for the development of Medium Term Economic Framework in health sector, as well as long-term projections of total health expenditure, especially since universal coverage began in 2001.

Several enabling factors for institutionalization and sustaining NHA were identified. A core group of committed researchers is an entry point for NHA initiation and development. Local initiative and inter-ministerial partnership ensures ownership, continuous development, sustainability and finally institutionalization. The biennial national household Socio-Economic Survey by the National Statistical Office provides estimations of household health expenditure. With publicly financed universal coverage, NHA is vital for the monitoring of health care financing reform. A long series allows policymakers to look at long-term financial requirement and fiscal capacity to meet these requirements.

♦♦♦♦♦
Latin America and Caribbean Region (Salon Ducal B + C)
Panel Chair: Karen Cavanaugh, USAID

*All LAC Region presentations and discussions will be conducted in Spanish

♦♦♦♦♦

Methodology for the Development of a System of NHA for Costa Rica
Carlos Carillo, Central Bank of Costa Rica

This paper presents the methodology for developing a system of Satellite Health Accounts for Costa Rica. Satellite Accounts permit the expansion of the analytical capacity of the central framework of the System of National Accounts without causing distortions.

It is important to create a framework for health that enlarges the statistical and analytical capacity of the SNA and facilitates international comparisons. In Costa Rica, a SHA is being developed to expand the limits of the production accounted for in the human health activities as defined in the International Standard Industrial Classification.

According to the SNA, production is identified with a list of observable products. Once these characteristic and connected health products and activities have been defined, it is possible to create the complete sequence of health accounts.

A SHA allows us to expand the boundary of the production accounted for by the activities in sub-division 851 of the ISIC. By constructing the Production Account and the Generation of Income Account, the Total Value of Production, and the Value of Intermediate Consumption, the Value Added can be estimated for all the economic activities related to human health. Once we have a consistent and complete Production and Generation of Income Account, it is possible to construct the Allocation of Income Account, Distribution of Income Account, Capital Account, and Financial Account in a way that satisfies health authorities’ requirements.

♦♦♦♦♦

Regional Health Accounts in La Libertad, Peru
Marco Zegarra, MOH Peru

This presentation will discuss indicators and specific characteristics of health systems financing relevant to Peru in general as well as those specific to La Libertad, the region where the health accounts study was conducted. We will look at aspects of the methodology as well as the findings of the study and the problems and challenges encountered. Lastly the presentation will discuss the political implications of the findings and how health accounts are being institutionalized in La Libertad as well as lessons learned and future steps.

♦♦♦♦♦

NHA in Reproductive Health and Gender Equity, Mexico 2003
Leticia Avila Burgos, INSP

The objective of this study was to estimate the expenditure on reproductive health and it considered the following programs: maternal-perinatal health, family planning, cervical and breast cancer, and aspects related to interfamily violence during 2003, identifying its public/private mixture, its geographic distribution, and its relation to health indicators.

The NHA methodology was used. The results indicated that expenditure in reproductive health for 2003 was US$ 2,120 million dollars, representing 5% of the total health expenditure and 0.4% of the GNP. Nearly 60% of the reproductive health expenditure is public. Ninety-one percent of the private expenditure comes from out-of-pocket expenses. The maternal-perinatal health program had the greatest expenditure (more than two thirds), Sixty percent of this expenditure was financed by the public sector and it was assigned to inpatient attention of childbirths, caesarean and complications during pregnancy, delivery and childbirth. Family planning represented...
21% of the reproductive health expenditure, and it was financed mainly by households, who acquired contraceptives at drugstores. Eleven percent was attributable to cervical and breast cancer programs and less than 1% to activities related to interfamily violence. The reproductive health expenditure per beneficiary was US$1,011. The public expenditure in maternal and perinatal health programs was inversely correlated to the maternal mortality rate, and positively correlated to the GNP per capita.

This study clearly showed the importance of NHA on reproductive health as a tool to identify who spends what, and it provides information that can allow the redistribution of the public expenditure to diminish the inequities existent in the Mexican health system.

**Middle East and North Africa Region (MENA) (Salon Bergara)**
Panel Chair: Akiko Maeda, World Bank

●●●●●

**NHA in Morocco, 2001**
M. Driss Zine-Eddine El-Idrissi, WHO-EMRO

In 2001, the total health expenditure (THE) in Morocco was 1.7 billion US$. It was approximately 62 $US per capita.

It should be noted that the THE evolution rate is higher than the GDP rate increasing. The THE, as percentage in the GDP, passed from 4.5% in 1997/98 to 5% in 2001. In spite of this increase, this percentage remains quite lower than the same ratio in the comparable countries of the MENA region.

The health system financing in Morocco remains fragmented and its distribution inequitable. We can note that the collective financing is always limited (45%) in spite of the State health expenditure increasing, through the evolution of the Ministry Of Health (MOH) budget, and the light decreasing of households expenditure in the THE (54% in 1997/98 and 51% in 2001).

Moreover, we note the weight of the drugs in the THE remains very high (36%) and the percentage of ambulatory health care, in the THE, is increased (31% in 1997/98 and 33% in 2001).

With pharmacies, private cabinets and private clinics engross the majority of financial flows of health insurance schemes. The public hospitals, representing nearly 80% of the beds in Morocco, collect less than 5% of these flows.

In the institutionalization issue, the possibility of having the routine data from the National Agency of Health Insurance – ANAM (lately created for the regulation of the Mandatory Health Insurance), in more of routine data from MOH, will facilitate to the NHA team to carry out a brief report annually.

●●●●●

**NHA in Tunisia, Year 2000**
Chokri Arfa, NIPH

This presentation describes the Tunisian experience in setting up NHA. We detail the latest NHA experience (2000) and give a comprehensive picture of health care provision, financing and expenditure in the Tunisian health sector.

In spite of the availability of data, our NHA team encountered two serious obstacles when trying to collect accurate and comprehensive data on health care provision, financing and expenditure according to the WHO/World Bank/USAID Producers’ Guide: disparity in health services definitions (of financing agents and institutions) and nomenclature.

We also encountered difficulties in accessing information on the private health sector in general and practitioners working in this sector. Nevertheless, certain important issues relating to the private health sector were identified and are summarised below. The 2002 report also provides a considerably more extensive and detailed analysis of medical expenditures, as well as the main methodology and steps to produce health accounts.

We believe that a periodic NHA is needed in Tunisia, and that the NHA methodology should be adapted to give a picture of the Tunisian
health system's financial modalities and organization. The Tunisian health system is complicated and it should be considered as multiple sources of health care financing and actors.

♦♦♦♦♦

Yemen NHA, 2003
Mansour al-Lozi, MOH Yemen

Yemen's National Health Accounts were last estimated for the year 1998 and findings were published in 2000. The estimation showed that Yemen spent a total of Yemeni rials (YR) 41.2 billion in 1998 – the equivalent of about US$ 304 million. This figure amounted to $20 per capita and 5.6% of Yemen gross domestic product in that year. Since then, the NHA team (housed in the Ministry of Health’s Health Policy and Technical Support Unit) has pursued a number of initiatives intended to update the 1998 estimate with annual estimates. So far, however, there has not been a household survey done that would generate estimates of household spending comparable to 1998 – when it was estimated that households accounted for 57%. The NHA team has conducted surveys of cost-sharing in public facilities and has assisted with a Public Health Expenditure Review that calculated government spending for each of the years from 1999 through 2003. Using a variety of interim estimation methods, the NHA team has developed preliminary estimates just for 2003 that show total health spending more than tripled to YR 134 billion – the equivalent of more than $700 million. While the amount per capita almost doubled (to about US$38), health spending as a percent of GDP (or as a percent of total government spending) did not change appreciably. One significant finding is that a majority of out-of-pocket by Yemenis (which was now above 60% of all spending) was being spent abroad, primarily in Jordan. Cost-sharing payments by households and spending on private providers in general were shown to be increasing as a share of total health spending.

♦♦♦♦♦

Commonwealth of Independent States (CIS) Region (Salon Condal)
Panel Chair: Forest Duncan, USAID
Discussant: Jack Langenbrunner, World Bank

♦♦♦♦♦

Armenia Mobilizes First NHA
Ara Ter-Grigoryan, MOH Armenia; Tatyana Makarova, USAID/Armenia Social Transition Project

Armenia began preparing for NHA in 2004, training a small group in the methodology and establishing an initial NHA workgroup in the Ministry of Health. To develop in-country capacity, cross-ministerial coordination and eventual policy impact, a workshop was held late that year for national stakeholders from a variety of relevant ministries and agencies as well as for international organizations. Productive discussions were held on the flow of health funds in the country, identifying the potential barriers to collect data, including data gaps, and using NHA results. A detailed action plan was developed by stakeholders. In January 2005 the NHA Steering Committee was established, NHA group membership was extended with support from USAID, and in June 2005 the NHA group was organized in its full membership with support from the World Bank and the WHO.

Armenia now is developing a comprehensive first round of NHA and will implement data collection activities for a second round of NHA, including a focused household survey. The issue of institutionalization of the NHA also has become a focus – the State Health Financing Agency will house NHA. The World Bank, WHO and USAID will continue to sponsor NHA activities in Armenia.

♦♦♦♦♦
NHA in Georgia – Results, Vision and Challenges
Levan Jugeli, Ministry of Labor, Health and Social Affairs

The process of producing NHA in Georgia has engaged the attention of a wide range of Georgian health sector decision makers and other stakeholders, who are drawing up specific work plans for activities for the period 2003–06. A data collection strategy has been drafted, and agreements made about institutionalization, including which agency will be the “home” of NHA. The NHA team that will implement the estimations also has been assembled. The presentation will review the challenges and way forward for institutionalization and will elaborate on the policy process during the Soviet and transitional periods.

♣♣♣♣♣

NHA: Ukrainian Vision
Yuriy Vitrenko, MOE Ukraine

This presentation describes issues related to the implementation of National Health Accounts in Ukraine. A comparative analysis of key indicators of health status and health care expenditures for Ukraine and several countries of the European Union and Eastern Europe is presented. The necessity of defining “medical service” unit for exact estimation of health care expenditures and analysis of effectiveness of their use is stressed. Several problems related to the implementation of NHA in Ukraine are examined and possible solutions are offered.

♣♣♣♣♣

Organization for Economic Cooperation and Development (OECD) (Salon Ducal B + C)
Panel Chair: Eva Orosz, OECD

♣♣♣♣♣

Estimating Private Expenditure in System of Health Accounts Terms in Spain
Jorge Relaño Toledano, MOH Spain

Private expenditure in Spain accounts for 29 percent of total health expenditure. From 1999 to 2003, private expenditure on health as a percentage of GDP increased from 2.10 to 2.22 percent. SHA findings about the extent of private health expenditures, as well as what they are spent on, are significant, because among countries with National Health Services, Spain has one of the highest rates of private health expenditure. From among the three approaches to estimating private expenditure – supply, demand and financing – available data dictate the use of the demand approach. National Accounts provide us with the best way to calculate an estimate by means of the demand approach, mainly through household and NPISH final consumption expenditures. Nevertheless, lack of reliable data prevents disaggregation to the level that SHA calls for. Data from Hospital Statistics and from the National Health System Reference Costs help; even so, provider and functional classifications remain a great challenge to be solved.

♣♣♣♣♣

Implementation of System of Health Accounts in Norway as Satellite Accounts within the National Accounts Framework
Ann Lisbet Brathaug, Statistics Norway

The paper gives a brief general overview of the implementation of System of Health Accounts in Norway, as satellite accounts within the National Accounts framework. The paper describes important sources and focuses particularly on the link between the sources and the different classification (as health providers, health functions and source of funding).
| EU Project on Labor Accounts  
| Markus Schneider, BASYS Germany  
|  
| *Abstract to be disseminated at Symposium  
|  
| Key Conclusions and Next Steps  
| Dr. Paul De Lay, UNAIDS  
|  
| This presentation will provide a summary of the main conclusions from preceding sessions of the symposium as a basis for discussing future plans and prospects for NHA.  
|  
| Final Remarks  
| Karen Cavanaugh, USAID; Peter Iveroth, Sida  
|
Presenter’s Biographical Statements

MANSOUR NAJI AL LOZI

Mansour Naji Al Lozi is currently a NHA and HIS consultant with PHRplus in Yemen. He previously worked as a research assistant in statistics at Sana’a University and was director of the Statistics and HIS department in the Ministry of Public Health and Population. Also, he was the leader of the HIS preparation team. His major accomplishments include; preparation of the HIS, assisting in the first and second five year plans, preparation of the yearly statistical reports for the MoPHP 1997-2000, authorship of a book entitled “Principles of Health Statistics”, and preparing the NHA report for the year 2003. He is currently co-writing a manual titled “Introduction to NHA”. In 1993 he received a bachelor’s degree in statistics from Sana’a University.

ANDERS ANELL

Anders Anell is director of the Swedish Institute for Health Economics, associate professor at the School of Economics and Management, Lund University, Sweden, and a member of the Advisory Board of the Swedish Council on Technology Assessment in Health Care. Previous research includes studies on health care financing and organisation, incentives and payment systems, the pharmaceutical market, patients’ preferences related to choice and the use of economic evaluation for priority setting.

VINOD ANNIGERI

Vinod Annigeri has worked in the field of health economics for more than a decade. His areas of interest are health care financing, decentralization of health services, PPPs in health care, and health accounts. His micro-study on district-level health accounts is considered to be a pioneering one in the effort of developing health accounts in India. He is a postgraduate in economics.

CHOKRI ARFA

Chokri Arfa is a health economist at the Tunisian National Institute of Public Health, a post he has occupied since 1997. During that period he has also served as a consultant to WHO in Tunisia and Djibouti, working on NHA in the latter. He previously was a professor at the National Institute of Labor and Social Studies and the High School of Economics and Commerce, teaching monetary economics, statistics, and mathematics applied to economics. He is author or co-author of a number of publications that include articles in the Journal of Labor and Development (Tunis), a training manual on health economics and presentations at several WHO NHA workshops. He holds a master’s of economics from the Faculty of Economics and Management of Tunis, and a diploma in mathematical economy and econometrics from the same institution. His bachelor’s is in mathematics and sciences. He has also completed courses in health sector reform at the Economic Development Institute of the World Bank, and statistics and epidemiology at the Faculty of Medicine of Tunis.

PETER BERNAN

Prof. Peter Berman (M.Sc, Ph.D) is a health economist with thirty years of experience in research, policy analysis and development, and training and education in global health. He joined the World Bank’s New Delhi office as Lead Economist for Health, Nutrition, and Population in July 2004 on leave from Harvard School of Public Health, where he has been Professor of Population and International Health Economics and Director of the International Health Systems Program (IHSP, see www.hsph.harvard.edu/ihsg/ihsg.html) in the Population and International Health Department. Prof. Berman is the author or editor of five books on global health economics and policy as well as dozens of academic articles and papers. He has led and/or participated in major field programs in all regions of the developing world.

Prof. Berman’s specific areas of technical expertise include analysis of health systems performance and the design of reform strategies; assessment of the supply side of health care delivery and the role of private health care provision in health systems and development of strategies to improve outcomes through public-private sector collaboration; and the use of national health accounts as a policy and planning tool. Prof. Berman has worked extensively on health system reform issues in a number of countries, including Egypt, India, Colombia, Indonesia, and Poland. He is co-author of the newly published book Getting Health Reform Right: A Guide to Improving Performance and Equity (Roberts, et al,
<table>
<thead>
<tr>
<th>ANN LISBET BRATHAUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann Lisbet Brathaug is an economist at Statistics Norway. She currently heads the Division for National Accounts and was head of the Division of Health Statistics from 1998 to 2003.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LETICIA AVILA BURGOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Leticia Avila is an associate researcher at the Center for Investigation of Health Systems at the National Institute of Public Health in Mexico. She is the author of various articles and books on costs, economic evaluation, health expenditures, intimate partner abuse, and inequalities in health. She holds a MD, a PhD in economics and a MSc in health systems.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CARLOS CARILLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlos Carillo is an Economist in National Accounts and the author of “Methodology Proposal for the Implementation of a System of Health Accounts in Costa Rica,” based on the framework set by the System of National Accounts with reference to Satellite Accounts. He has been an active member of the Costa Rican Health Accounts Task Force since 2000.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KAREN CAVANAUGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karen Cavanaugh, MPH, health systems management analyst for USAID’s Bureau for Global Health, is the CTO (cognizant technical officer) for the PHRplus project and responsible for technical support to USAID missions in health policy and finance. She also works to mainstream health system strengthening practices into all of USAID’s health projects. Previously at USAID, she served as coordinator of the LAC Health Sector Reform Initiative.</td>
</tr>
</tbody>
</table>

To this work, Ms. Cavanaugh brings her earlier field experience of managing the design and implementation of community and national health projects in Bangladesh and Peru with CARE, as well as developing, negotiating, supervising and evaluating health loans with national governments in Latin America and the Caribbean for the World Bank. The loans, in Peru, the Dominican Republic, and Venezuela, supported health reform and basic health and nutrition service delivery. Also at the Bank, she supervised the implementation of a health service decentralization project in Haiti and carried out analytical work on poverty and nutrition in Peru. Ms. Cavanaugh has a master’s degree in international health planning from Johns Hopkins University, a bachelor’s degree in development economics from Georgetown University, and training in basic sciences from Goucher College. She works in English, French, Spanish, Portuguese, and Bengali. |

<table>
<thead>
<tr>
<th>YANN DERRIENNIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>A health systems and financing specialist, Mr. Derriennic has more than twenty years field experience mostly in Africa, but including residency in the Caribbean and Eastern Europe. Currently based in Burkina Faso, Mr. Derriennic is the NHA West and Central Africa Coordinator for Abt Associates and is working on NHA with the Advance West Africa Region (AWARE) project and Partners for Health Reformplus project. He is providing direct support to Mali and Benin. Mr. Derriennic has participated in the training of NHA trainer’s workshops and three NHA regional workshops and is a member of the team developing National Education Accounts with a first application in Morocco. Under the PHRplus, Mr. Derriennic is working on estimating the financing needs of ACT for DRC and Tanzania. He is member of the team developing the NHA malaria subanalysis. Mr. Derriennic recently completed a costing of antimalarial drug treatments in Ghana and authored a financing of antimalarial treatment paper for the Roll Back Malaria Partnership.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TANIA DMYTRACZENKO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tania Dmytraczenko, a principal associate at Abt Associates Inc., is a health economist with ten years of experience in providing technical assistance to developing countries in health policy and planning and health care financing. She has been a</td>
</tr>
</tbody>
</table>
key contributor to the adaptation of the NHA methodology to track expenditures on MDGs including HIV/AIDS, reproductive health, malaria and child health – a collaboration with partners such as WHO, UNAIDS, UNFPA and the Roll Back Malaria Partnership. She currently serves as senior NHA advisor with the USAID-funded Partners for Health Reformplus Project, providing technical assistance and oversight on establishment of regional networks and assisting a number of countries to develop NHA estimates and use results to inform policy decision-making.

**FOREST DUNCAN**

Forest Duncan is the senior health reform adviser with USAID’s Europe and Eurasia Bureau in Washington. He advises the Bureau and Missions on health sector reform issues and manages USAID’s regional cooperative agreement with the American International Health Alliance Health Partnerships program. Previously, he was senior health economist with the Health Policy and Sector Reform Division of USAID’s Population, Health and Nutrition Center. In that capacity, he co-managed USAID’s Partnerships for Health Reform project.

**M. DRISS ZINE-EDDINE EL-IDRISI**

Dr. M. Driss Zine-Eddine El-Idrissi is a health economist. He is a graduate of the Faculty of Economics in Rennes (France) and currently works with the WHO-EMRO as a health economist. Dr. Driss taught at various French universities from 1991 to 1996. In Morocco, he was the Head of the department of “Health Economics” (period when the first NHA were elaborate in Morocco) then “Planning and Studies” Department from 1997 to 2003. From 2003 to 2005, Dr. Driss was the Chief of the Minister's Cabinet. During these years spent in Morocco, he also taught at the universities (of Medicine and Economics) and Specialized Higher Institutes and as been an international consultant since 2001. Dr. Zine-Eddine El-Idrissi is a specialist in NHA and financing policies. He was co-charged of the mandatory health insurance implementing in Morocco.

**PÅR ERIKSSON**

Pär Eriksson, a health systems specialist in Sida’s Health Division since 2000, is presently health adviser/regional health adviser based in Zambia. His special interests are health financing, NHA and public-private partnerships. He has worked on hospital administration and been involved in a number of studies on organisational development and networking. He also has done long-term technical assistance at the Central Board of Health in Zambia and has field experience from Tanzania. Mr. Eriksson has a MSS in business administration and organization.

**DAVID EVANS**

David Evans is an economist. He worked for 12 years as an academic and occasional consultant before joining WHO 15 years ago, initially focusing on social and economic research relating to tropical disease control. He is now Director of the Department of Health Systems Financing, which covers the areas of cost estimates and analysis, cost-effectiveness analysis (the WHO-CHOICE project), resource tracking and NHA (including annual estimates of health expenditure for all WHO's Member States), catastrophic expenditure and impoverishment, contracting policy, and health financing strategy development. He continues to publish the occasional article.

**CHARU GARG**

Charu C. Garg, PhD, is an economist with specialization in health policy and financing. She was a Takemi fellow at the Harvard School of Public Health and has worked on National Health Accounts, health insurance and equity aspects of health financing and delivery. Dr. Garg has long years of research and teaching experience in India and the United States and consulting experience with several international organizations. She has published and presented widely. Currently, she is working as a health economist at WHO in Geneva and is focusing on NHA work related to countries in Southeast Asia, the Western Pacific region and centrally independent states, development of an additionality tool, tracing expenditures on human resources and developing a tool to track resources by beneficiary groups such as age, sex, and income groups. She is a member of the global resource tracking working group and UNAIDS resource tracking working group.

**ANNA GLENNGÅRD**

Anna H. Glennård is project manager at the Swedish Institute for Health Economics. She has a MSc in economics, School of Economics and Management, and a BA in business administration, Lund University, Sweden. Her areas of
work include health care in developing countries related to health care financing and payment systems and economic evaluations of pharmaceuticals and medical technology in Swedish health care.

**Amparo Gordillo**

Amparo Gordillo is a consultant in health economics and financing at the Health Policies and Systems Unit of the Pan American Health Organization with shared responsibility for the Health Accounts Harmonization and Health Satellite Accounts projects in the Latin American and Caribbean Region.

**Patricia Hernandez**

Patricia Hernandez is a health economist based at the NHA Unit of WHO/Geneva. She prepares annual NHA aggregates on 192 WHO member states for the World Health Report annex tables and NHA main aggregates on pharmaceutical expenditures for 180 member states. She has participated in national-level NHA estimates for countries such as Mexico, Peru, Guatemala, Ecuador, Uruguay and Panama and has taught in international and national courses on NHA and HIV/AIDS accounts. She contributed to the NHA Producers’ Guide, to a guide on HIV/AIDS accounts forSIDALAC and to three NHA national guidelines. She has applied the NHA methodology to specific subjects such as drug abuse prevention and control, HIV/AIDS and expenditure on children with leukaemia. She currently is contributing to subjects such as malaria, reproductive health, compensation of health employment, and pharmaceuticals, including guidelines on measurement of expenditures on beneficiaries of health services.

**Manfred Huber**

Manfred Huber is a senior economist in the Directorate for Employment, Labour and Social Affairs of the OECD Health Division. He has been with the OECD since October 1995. He currently works on care for older people and long-term care data, and on output and price measurement in health care. Prior to this, he led a team in charge of health indicators. Among the regular outcomes from this work were two of OECD's flagship publications: *OECD Health Data*, and *Health at a Glance*. Dr. Huber is the author of the OECD manual *A System of Health Accounts* and has advised numerous countries on how to improve health information systems. Among his other research interests are macro-economic simulations for health care reform and international comparisons. Before joining the OECD, Dr. Huber worked with a private consulting firm in Germany on health and social policy issues for clients in social health insurance, and with the Federal Government. He has a MSc in mathematics from the University of Munich and a PhD in economics from the University of Munich, where he also served as lecturer and research assistant in economic statistics.

**Peter Iveroth**

Peter Iveroth is programme officer in the Health Division of the Swedish International Development Cooperation Agency. His academic merits include a MD/Specialist in infectious diseases from the Karolinska Institutet, a BA in economics from the Stockholm School of Economics and a MSc in public health from the Nordic School of Public Health in Gothenburg.

**Jose Izazola**

Jose Izazola was a founding member of the Mexican AIDS program in 1985. At FUNSALUD from 1995 to 2004, he served as the first executive coordinator of the Regional AIDS Initiative for Latin America and the Caribbean (SIDALAC). Starting in 1996, he led SIDALAC’s adaptation of NHA methods for the development of “National AIDS Accounts” in more than 20 LAC and two West African countries. In 2005 he assumed the position of senior advisor for Resource and Financial Analysis and team leader for Resource Tracking and Projections in UNAIDS.

**María Fernanda Merino Juarez**

María Fernanda Merino Juarez currently is director of information on health resources at the Mexican Ministry of Health, in charge of institutionalizing a System of National and State Health Accounts and of establishing a new system for registering information on human resources and infrastructure used in the production of health. Additionally, she is working on establishing the legal basis for the development and strengthening of the Mexican Health Information System. She previously worked as a researcher at the National Institute of Psychiatry in Mexico and the Massachusetts Department of Public. She worked in the Office of Advisers to the Minister of Health of Mexico and as Director of Multilateral Affairs (1999-2000). She has a BS in nutrition and food science from the Universidad
Iberoamericana, Mexico City, a MS in nutrition from the Harvard School of Public Health, and a MS in health policy planning and financing from the London School of Economics and Political Science and the London School of Hygiene and Tropical Medicine.

Levan Jugeli, MD, MSc, is deputy minister in the Ministry of Labour, Health and Social Affairs of Georgia, and is actively leading reform in the health sector. Prior to his work in the Ministry, Dr. Jugeli served as technical advisor to the International Center for HIV/AIDS Communication in Philadelphia, and he has carried out a variety of consultancy projects for the pharmaceutical, and non-profit sectors, as well as for international donors such as USAID projects and the World Bank. His research interests cover a wide variety of health-related issues, including health care financing, policy development and private sector involvement in health care provision. He received his MD from the Tbilisi State Medical University and an MSc degree in international health policy from the London School of Economics and Political Science.

Kei Kawabata joined the World Bank in 1984 as part of the Young Professionals Program and has held various positions within the Bank. At present, Ms. Kawabata is the sector manager of the Health, Nutrition and Population Unit in the Human Development Network. Ms. Kawabata has also held senior positions at WHO, where she managed programs related to the areas of health systems development, health financing and national health accounts. Ms. Kawabata started her career with the UNDP.

Lillian Kidane has a background in International Health. She is a member of the core PHRplus NHA team and principal task manager of the Abt Associates NHA portfolio in all five regions of operation: East and Southern Africa, West and Central Africa, the Middle East and North Africa, Latin America and the Caribbean. Ms. Kidane also provides assistance to a number of Abt and PHRplus documents including co-authoring various NHA policy briefs across regions.

Dr. John C. Langenbrunner is a senior health economist with both research and operations experience. He is currently working in the Europe and Central Asia region, and has worked on health financing issues in Russia, Poland, Croatia, Azerbaijan, Kyrgyzstan, Kazakhstan, and Uzbekistan. He has worked as well in selected countries in the Middle East/North Africa region.

Sophia Lebanidze is a health economist in the Health Policy Unit of the National Institute of Health and Social Affairs in Georgia. She has spent three years working in various branches of the health care system, including on medical and social protection state programs and cooperation with foreign donor organizations. When the Ministry of Labour, Health and Social Affairs began work on NHA in 2003, Ms. Lebanidze was chosen to head a working group that brought together experts from different departments and to adapt and apply the NHA methodology to the Georgian health system. She coordinates the activities of the working group, the Institute and Curatio International Foundation for the development and institutionalization of NHA in Georgia.

Tatyana Makarova is a senior associate with Abt Associates Inc, and currently is a health team leader and senior health policy advisor for USAID’s five-year Armenia Social Transition Program. She also serves as advisor to the Armenia NHA working group. Dr. Makarova is a specialist in health policy, health finance and management. Her 17 years of experience includes health reform strategy development and implementation, design and implementation of health finance system change, development of health insurance regulation and management, benefits package design and implementation, health service purchasing and contracting, design and implementation of new provider payment models, restructuring of health care delivery systems, primary care reorganization, managed care concept applications, quality and utilization management; cost accounting and analysis, price formation, user fees and regulation, and rational pharmaceutical management. She has worked in Russia, Armenia, Ukraine, Kazakhstan, Turkmenistan, and several other countries in the region.
Kyrgyz Republic, Georgia, Latvia, Bosnia and Herzegovina, Czech Republic, Romania, and Moldova as well as on Bangladesh. Dr. Makarova received a PhD in economics from the Russian Academy of Economics and a MPH from Johns Hopkins University School of Public Health.

**MARTY MAKINEN**

Marty Makinen is a health economist with more than 20 years of experience in technical assistance, teaching, and applied research in all regions of the world. He joined Abt Associates Inc. in 1985 to start the firm's international health practice. He began by heading Abt's work on the REACH project and the Niger Health Sector Support Grant contract. Later, he was the technical director of the worldwide Health Financing and Sustainability Project, the ZdravReform Program in the former Soviet Union, and Abt's subcontract with PATH on the Gates Foundation's Children's Vaccine Program. He worked on several major assignments on the Partnerships for Health Reform Project, and now directs its successor, the Partners for Health Reformplus. Dr. Makinen's recent work includes technical assistance, indicator development, and training to help implement the Vaccine Fund's Financial Sustainability Plans; technical leadership for the Equity Initiative in Mali; and design of a study of health zone organization and operation in the Democratic Republic of Congo. Before joining Abt Associates, Dr. Makinen was a research scientist at the University of Michigan's Center for Research on Economic Development, resident advisor on food and nutrition policy in Madagascar for Associates in International Resources and Development, and assistant professor in Economics at the University of Delaware. He has taught and lectured at a variety of venues worldwide. He is active in the American Public Health Association's International Health Section and won its Section's Mid-Career Award in 1998 and its Service Award in 2002. He received his PhD and master's in economics from the University of Michigan and his BA in economics from Kalamazoo College.

**HALA MASSEKH**

Dr. Hala Massekh currently serves as a director of the Family Health Fund (FHF) in the Alexandria and Beheira governorates in Egypt. The FHF is the first organization in Egypt to separate the purchaser and provider functions within the health insurance system. Dr. Massekh has a medical degree as well as a master's in pediatrics from Alexandria University, Egypt, and a PhD and diploma in public health from the Alexandria University High Institute of Public Health. She has wide experience in management, quality, health finance, and economics. For the Ministry of Health and Population's Health Sector Reform Project, Dr. Massekh has worked as director of policy and strategy, of monitoring and evaluation and of contract and insurance operations at the governorate level.

**AKIKO MAEDA**

Akiko Maeda currently is manager for Health, Nutrition and Population Programs in the Middle East & North Africa Region of the World Bank. Dr. Maeda is a health economist specialized in health financing and health insurance policies in developing countries and has worked extensively on health reform programs in the Middle East, North Africa, Eastern Europe and Central Asian countries. Her country experiences include Albania, Croatia, Slovenia, Kazakhstan, Kyrgyzstan, Tajikistan, Yemen, Egypt, Tunisia, Morocco, and the West Bank and Gaza. Prior to joining the Bank, she held a number of positions with development agencies, including the Asian Development Bank, UNICEF, and UNDP. Dr. Maeda earned a PhD in health economics from the Johns Hopkins School of Public Health, a MA in biochemistry and molecular biology, a MA in Middle Eastern studies from Harvard University and a bachelor degree in biochemistry from Princeton University.

**STEPHEN MUSAU**

Stephen Musau is a Technical Advisor on health care financing in Abt Associates Inc, primarily working on the Partners For Health Reform Project, where he is currently the NHA Coordinator. He is a Chartered Accountant with over 20 years experience in financial management consulting, auditing and cost analysis of health institutions. He has served as Resident Financial Management Advisor to a large USAID-funded project in Kenya that successfully introduced user fees and related financial management systems to public hospitals. For eight years he was a partner in a firm of certified public accountants in Kenya, providing auditing and financial management advisory services to a wide range of clients many of whom were in the health sector. He has experience in community-based health financing initiatives in East and Southern Africa and has worked with health insurance schemes in Uganda, Kenya and Tanzania. He has provided technical assistance to ministries of health and non-governmental organizations in east and southern Africa in a variety of health care financing issues.
**Takondwa Mwase**

Takondwa Mwase has more than 10 years of experience in health planning, health financing and health care management. Currently, Mr. Mwase is a health economist with Abt Associates Inc. based in Lilongwe, Malawi, working with general NHAs as well as reproductive health, HIV/AIDS and child health subanalyses in a number of countries across Africa and the Near East. Previously, he was regional advisor for NHA and health financing at the WHO Africa Regional Office. He has served as a fellow at WHO in Geneva responsible for NHA for the Africa Region. For eight years, he was responsible for health planning, health financing and operations research, notably NHA, district health accounts, assessing health financing options and economic evaluation, at the Ministry of Health in Malawi. Over the years, Mr. Mwase has consulted on various issues of health sector reforms for organizations such as DANIDA, DFID, EU, GTZ, UNICEF, UNDP, USAID and the World Bank. He also has served as acting advisor in the development of NHA and acting investigator for NHA assessment in a number of countries including Botswana, Democratic Republic of Congo, Congo, Gambia, Ghana, Lesotho, Kenya, Madagascar, Mauritius, Mozambique, Namibia, Nigeria, Seychelles, Swaziland, Sierra Leone, Togo, Zambia and Zimbabwe. He holds a MSS in health economics from the University of Cape Town and is fluent in English and French.

**A.K. Nandakumar**

A.K. Nandakumar, Ph.D., is a professor at Brandeis University, where he directs the MS program in International Health Policy and Management. In addition he is a senior international health economist in Research Triangle Institute. Dr. Nandakumar has more than 20 years of technical and managerial experience in long-term care financing, aging and its impact on health systems in developing countries; NHA; and other health care financing issues in the United States and developing countries. He is an internationally recognized expert on NHA and has worked with international agencies and countries to establish regional NHA networks. He contributed to the development of the NHA Producers Guide and is a member of the International Panel of NHA experts. Dr. Nandakumar started his career with the Indian Administrative Service, then joined Harvard University as an assistant professor and was with Abt Associates as a principal associate. Dr. Nandakumar has also been a consultant to the World Bank and the World Health Organization. He has published extensively in peer-reviewed journals on both domestic and international health issues. His basic training was in mathematics and his Ph.D. is in economics from Boston University.

**Eva Orosz**

Eva Orosz is an economist at the Health Division of the OECD, with responsibility for international co-ordination of the implementation and further development of the System of Health Accounts. Previously she was the head of Health Economics Research Centre at the ELTE University (Budapest) and project leader of the NHA Project in Hungary.

**Walaiporn Patcharanarumol**

Walaiporn Patcharanarumol is a researcher at International Health Policy Program, Ministry of Public Health of Thailand. The program is mandated to build capacity in health systems and policy research. Ms. Patcharanarumol contributes significantly to health care financing policy development in regard to hospital costing, capitation rate estimation for universal health care coverage, maintenance of NHA, development of National AIDS Accounts and long-term projection of health care financing. She is pursuing a PhD at the Health Policy Unit, London School of Hygiene and Tropical Medicine. Her PhD thesis is on health care financing for the poor in resource-poor settings in the Lao PDR.
**Felix V. Phiri**

Felix V. Phiri is the assistant director of planning and budgeting in the Zambia Ministry of Health. He has expertise in areas of health reform, health care financing, policy and planning. Mr. Phiri is the NHA national coordinator for Zambia and is also a member of the NHA Core Team. He has worked on NHA for the past seven years and for the Ministry of Health for 10 years.

**Nancy Pielemeier**

Nancy Pielemeier has more than 30 years of experience in international public health policy, program development and implementation. This time has included in-country implementation in health systems and development while she was resident in Botswana, Brazil, Liberia, and Malaysia. As a vice president in the International Health Area at Abt Associates Inc., Dr. Pielemeier manages and provides technical leadership for more than 20 international health projects. She is responsible for strategic planning and oversight of projects that cover a wide range of issues including HIV/AIDS and reproductive health. As project director until early 2005 of the $98 million worldwide Partners for Health Reformplus, USAID’s flagship project in health policy and systems strengthening, Dr. Pielemeier was deeply involved with policy issues. Prior to working on PHRplus, Dr. Pielemeier established herself as a talented and able manager of the USAID-funded Partnerships for Health Reform and ZdravReform Projects, the latter a five-year program of technical assistance for health finance and service delivery reform in the former Soviet Union.

**Yogendr’nath Ramful**

Yogendr’nath Ramful is principal health economist in the Ministry of Health and Quality of Life in Mauritius. He chairs the NHA committee. He also serves as a member of the Expert Committee on Health Systems Development Programme of the ECSA (East, Central and Southern Africa) Health Community.

**Roselyn Ramos**

Roselyn Y. Ramos has a background in International Development and is the Principal Coordinator of the 4th Biennial Global National Health Accounts Symposium. She serves as the principal Task Manager for the PHRplus NHA team, coordinating international workshops and conferences and managing the general administration of the NHA portfolio in five regional networks: Latin America and the Caribbean, East and Southern Africa, West and Central Africa, The Middle East and North Africa, and the Common Wealth of Independent States. Ms. Ramos also contributes technically to NHA work; including co-authoring the NHA Synthesis Report of 26 Countries and the NHA HIV/AIDS Guidelines Brief.

**Magdalena Rathe**

Magdalena Rathe is a health economist with wide experience in health financing, particularly health accounts and equity analysis. She has worked as an international consultant in several countries, such as the Dominican Republic, Nicaragua, Nigeria, Paraguay, and Guatemala and others in the Caribbean Region. She has assisted the Ministry of Health of Nicaragua on NHA for many years as a consultant of Harvard School of Public Health and is now preparing a methodology to develop National Education Accounts. She is currently assisting the development of health accounts to the Ministry of Health of Ekiti State in Nigeria. She has also worked on HIV/AIDS financing, socioeconomic impact and monitoring and evaluation of HIV/AIDS projects. She has worked with international organizations such as USAID, the World Bank, DfID, and PAHO. She has written several books and numerous papers, and made many international presentations. She is the director of Fundación Plenitud, a Dominican Republic-based research center that works on human development issues with focus on health and education and their link to socioeconomic development.

**Hossein Salehi**

Dr. Hossein Salehi is the regional adviser for health economics and finance with the Division of Health Systems and Services Development of the World Health Organization, Eastern Mediterranean Regional Office. Prior to working with WHO, Dr. Salehi taught economic theory and health economics at University of California, Los Angeles. He has also worked for a think tank affiliated with Management and Planning Organization in Iran, where he served as a member of the country’s NHA Team.
**MARKUS SCHNEIDER**

Mr. Markus Schneider is econometrician with particular experience in international comparative analysis. In 1980, he founded BASYS (Beratungsgesellschaft fuer angewandte Systemforschung mbH) with the aim to provide independent consultancy on applied system research. In 1993, he expanded his geographic experience with a range of consultancies in Central and Eastern Europe with special emphasis on health system reforms. From 1996-1999, Dr. Schneider was leading the Framework Contract on Health with PHARE countries including the consensus conference focusing on reforms in organization, financing, and delivery of health care in Central and Eastern Europe in preparation for accession to the European Union. He supervised the reform of health accounts at the Statistical Office in Germany. In Poland, he developed Health Accounts with support of the World Bank. For the European Statistical Office he is currently doing a study on Health Accounts in the EU Member States.

**DONALD SHEPARD**

Donald S. Shepard, PhD, is a professor and health economist at the Schneider Institute for Health Policy at the Heller School, Brandeis University, Waltham, Massachusetts. He also directs the Institute's workgroup on Cost and Value, a group concerned with health problems of both the United States and developing countries. His major concentrations are cost and cost-effectiveness analysis in health and health financing. Professor Shepard is the principal Investigator of the Dengue Burden of Disease Study working with researchers in nine dengue-endemic countries to study the burden of illness. In 2002, he was elected to the Board of Councilors of the Pediatric Dengue Vaccine Initiative, a foundation-supported program to promote the development of a dengue vaccine.

**ARA TER-GRIGORYAN**

Dr. Ara Ter-Grigoryan is the head of the State Health Financing Agency in Armenia, a member of the NHA Steering Committee and a head of the NHA working group. He is a specialist in internal medicine, and public health with 28 years of practical experience. His areas of expertise include health policy, health planning and administration, health financing and management, health reform, and clinical practice. In recent years, his work has been largely related to benefits package design and implementation, resource allocation, health service purchasing and contracting, design and implementation of new provider payment models, restructuring of health care delivery systems, and health care restructuring. He received an award from the President of Armenia for authorship and implementation of the health financing information system. Dr. Ara Ter-Grigoryan has been actively collaborating with WHO, USAID and the World Bank for more than 10 years. As a professor at the Yerevan State Medical University and the National Institute of Health, he has issued several textbooks on health management and financing. Dr. Ara Ter-Grigoryan holds two MD degrees, from the Yerevan State Medical University and the Moscow Medical Academy, and a PhD degree in public health and health organization from the National Institute of Health of Armenia.

**MARIE TIEN**

Marie Tien has a background in international health and population policy and is a member of Abt Associates' NHA team under the Partners for Health Reformplus (PHRplus) Project. She provides both technical and coordination assistance to the NHA portfolio, contributing to the development of a number of NHA documents. Ms. Tien has taught instructional courses on NHA in Armenia, Kazakhstan, Ghana, Kenya, Ethiopia, and Zambia. She is also the Europe and Eurasia coordinator for PHRplus Project. She has an MHS from the Johns Hopkins University School of Public Health.

**JORGE JUAN RENALO TOLEDAANO**

Jorge Juan Relaño Toledano has a degree in economics and is the undersecretary general of Economic Analysis for the Ministry of Health and Consumption. He directs the coordination of the working group on health financing created by the Interterritorial Advisory of the National Health System for the harmonization of national statistics on public health financing and the application of the System of Health Accounts (SHA) supported by the OECD. He is recognized in Spain and by the OECD as the national expert on health accounts and is responsible for the ongoing effort of SHA in Spain. He is also the Spaniard representative on two health sector projects developed by EUROSTAT: EUCOMP and Health Labor Accounts.
JEFFREY TSHABALALA

Jeffrey Tshabalala works on the development and institutionalisation of National Health Accounts in Zimbabwe. He is an active participant in Eastern, Central and Southern Africa regional NHA network. Network initiatives include the institutionalisation of NHA throughout the region. He holds an MBA from Henley Management College, and is a candidate for a PhD in business administration from NIMBAS-University of Bradford. He has completed a postgraduate certificate in health economics.

NATHALIE VAN DE MAELE

Nathalie Van de Maele is an economist. She has worked in the field of NHA for 6 years, with the last three at the WHO concentrating on NHA in African and Middle Eastern countries. She is a full-time member of the WHO NHA team, of the Department of Health Systems Financing, and is responsible for collating and/or estimating the African and Middle Eastern health expenditure estimates published in the annual World Health Reports. As part of the NHA team, she is involved in NHA methodology development and capacity building in countries of the region she works on.

YURIY M. VITRENKO

Yuriy M. Vitrenko is head of the Humanitarian Development Department (which includes the economics of education, health care, arts, mass media and tourism) at the Ministry of Economics of Ukraine. He is currently on the NHA team working to conduct the first set of estimates for that country. Dr. Vitrenko has also served as senior engineer at the Ministry of Finance and head of the Financial Planning Department at the Kiev Institute of Public Economics. He has a PhD in economics from the Institute of Economics NANU.

DANIEL R. WALDO

Daniel R. Waldo has been involved with national health accounting since 1978. He worked on or led the USA health accounts team for 20 years. Prior to that experience, he was involved in estimating personal consumption of services in the USA national income accounts.

CHARLES WAZA

Mr. Charles Waza has extensive experience with Finance and Accounting at the national level and, as a member of the Ministry of Health of Rwanda, has been involved in the Global Fund Projects since December 2004. As Head of Accounting Department in the Ministry of Health, he has actively participated in NHA in Rwanda since 2000 and was actively involved with its successful completion and dissemination in 2004. Charles Waza holds a BBA from the National University of Rwanda and also has experience as an international consultant in program management and project evaluation.

MARCO ZEGARRA

Marco Zegarra is an Industrial Engineer who has developed his professional career specializing in the process of regional planning and microregional and community development. He has worked for the National Institute of Planning, La Libertad Corporation of Development, the Regional Government “Víctor Raúl Haya de la Torre,” and the Transitory Advisory of Administration for the La Libertad Region. He currently works for the Regional Government of La Libertad.
The U.S. Agency for International Development’s (USAID) programs in global health represent the commitment and determination of the U.S. government to prevent suffering, save lives, and create a brighter future for families in the developing world. USAID’s goal is to improve the quality, availability, and use of essential health services, including child, maternal, and reproductive health, and the reduction of abortion and disease, especially HIV/AIDS, malaria, and tuberculosis. The Bureau for Global Health supports field health programs, advances research and innovation in selected areas, and transfers new technologies to the field through its own staff work, coordination with other donors, and a portfolio of grants and contracts with an annual budget in excess of $1.6 billion. Through USAID, the U.S. government is the world’s largest donor.

**Areas of Health**

**Environmental Health:** USAID aims to provide global leadership in the development, implementation, and promotion of new and improved interventions to reduce illness and death in children caused by environmental factors such as contaminated water and indoor smoke from cooking fires.

**Family Planning:** USAID’s family planning program is one of the success stories in U.S. development assistance. Enabling couples to determine whether, when, and how often to have children is vital to safe motherhood and healthy families and has profound health, economic, and social benefits for families and communities: protecting the health of women by reducing high-risk pregnancies; protecting the health of children by allowing sufficient time between pregnancies; fighting HIV/AIDS through information, counseling, and access to condoms; reducing abortions; supporting women's rights and opportunities for education, employment, and full participation in society; and protecting the environment by stabilizing population growth.

**Health Systems:** USAID’s health systems strengthening program provides support to ensure that developing country health systems are effective, efficient, and equitable. Health systems strengthening is a continuous process of implementing changes in policies and management arrangements. This process, whether guided by governments, nongovernmental organizations or donor agencies is underway in many countries. Approaches to health systems strengthening are numerous, such as reducing bureaucracy, increasing cost-effectiveness, improving efficiency through reorganized services and decentralization, and allocating resources to better address needs. USAID concentrates on five critical resources in pursuing these goals: implementing effective policy reform; delivering quality services by health workers; ensuring availability and appropriate use of commodities; strengthening health finance systems and ensuring effective use of health finance information; and strengthening health information systems and ensuring regular use of information.

**HIV/AIDS:** The U.S. government has made the fight against HIV/AIDS a top priority, not only for humanitarian reasons, but because the HIV/AIDS crisis threatens the prosperity, stability, and development of nations around the world. USAID has been, and continues to be, at the forefront of the U.S. government’s response in the fight against the HIV/AIDS pandemic. USAID has funded over $3.2 billion since inception of its international HIV/AIDS program in 1986, more than any other public or private organization. USAID currently has HIV/AIDS programs in nearly 100 countries worldwide.

**Infectious Disease:** For decades, USAID has been a leader in the control and prevention of infectious diseases as part of long standing efforts in child survival, maternal health and HIV/AIDS. The Agency launched an Infectious Disease Initiative in 1998 that focuses on preventing diseases, strengthening the treatment and control and focusing on cross-cutting issues of building surveillance capacity and addressing antimicrobial resistance. The initiative builds on USAID’s long-standing efforts to address acute respiratory infections, diarrheal diseases, vaccine preventable diseases (including polio) and malaria in children as well as the HIV/AIDS epidemic.

**Maternal & Child Health:** USAID is committed to improving the health and well-being of children and families in the developing world through child survival and disease control efforts. Key interventions such as iron supplementation, malaria treatment, safe delivery, and treatment of obstetric and newborn complications improve the
survival and health of mothers and infants. According to UNICEF, 3 million fewer children died as a result of preventable causes in 2000 than in 1990. USAID assistance was instrumental in this achievement.

**Nutrition:** Good nutrition can lead to an impressive range of benefits including improved health, cognitive development, and work capacity. Poor nutrition impairs the immune response and thus increases the frequency, severity, duration and mortality of common childhood illnesses and susceptibility to other infectious diseases such as malaria, TB and HIV/AIDS. Nutrition programs implemented by USAID and its partners have helped to decrease hunger and serious malnutrition rates throughout the developing world. USAID nutrition programs are integrated with other key lifesaving interventions for maximum impact, e.g. safe water, hygiene and sanitation.

**Contact info:** U.S. Agency for International Development 1300 Pennsylvania Avenue, NW Washington, DC 20523
**Symposium Co-Sponsor**

**Sida** formulates two objectives for Sweden’s health related development co-operation. Sweden will support countries, in a partnership relation, to achieve improved health outcome through:

- improving the economic, social, cultural and environmental determinants of health in all relevant sectors of society, and strengthening the role of the health sector in influencing the health-related policies and health outcomes of other sectors,
- sustainable and effective health systems with universal access to and coverage of health services of acceptable quality, emphasising social equity and gender equality

Sweden works with the broad determinants of health as well as with the health sector itself. The importance of protecting and improving the health of the poor as an end in itself as well as an instrument for poverty reduction provides a strong base for promoting coherence in policies and strategies by introducing health outcome objectives within all sector policies. The responsibility for making "healthy public policies" rests within the concerned sectors themselves, but with the effects appearing in the health sector in the form of diseases or injuries, and since much of the preventive work rests with the health sector, the health sector has an important expert and advocacy role towards other sectors.

1. **Public Health, Health Determinants, and Health Advocacy**

Health is basically a consequence of economic, social, cultural and environmental determinants. Inequity in health is strongly related to people's living conditions, working conditions and lifestyle factors (smoking, alcohol abuse and unhealthy food habits). People who live in poverty are exposed to the worst environmental health risks. Overall, about a third of the global burden of disease can be attributed to environmental factors. **Malnutrition** is associated with over half of all child deaths in developing countries. **Tobacco** will become the largest single health problem in 2020, causing an estimated 8.4 million deaths annually of which 6 million from developing countries. Abuse of **alcohol** is linked to poverty and has a serious impact on the financial situation of families, domestic violence and criminality. **Illicit drugs** are also intimately related to problems of poverty, inequality, exploitation, corruption, weak governance and violations of human rights. **Injuries** pose a growing threat to health in low-income countries, responsible for more than ten percent of the total burden of disease. The interrelationships between health and **education** are strong. Education influences health outcomes and poor health undermines the learning potential.

2. **Health Service Delivery and Systems Development**

The health system has an important role in reduction of the burden of disease of the poor through promotive as well as curative and preventive interventions. Extending the coverage of basic health services to the World’s poor would save millions of lives each year, reduce poverty, spur economic development and promote global security. Health reform agendas have attempted to improve services and reduce gaps in the coverage of basic health services.

The **decentralisation** processes is important to increase local participation in the decision-making process and to make the health services more responsive to local needs, transparent and cost-effective. Through decentralisation processes and health reforms, the governing role of Ministries of Health is strengthened. This includes policy development, strategic planning, setting national targets and standards for quality and regulation of the public and private actors including NGO's as well as the private sector. The realisation of improved health and living conditions will also depend on a strong and vital **civil society**.

The sources for financing the health sector as well as the mechanisms used to allocate those resources within the health system directly affect the access of health services of the poor and the final health outcome. All governments with whom Sweden has bilateral health co-operation provide resources to health services through the **general budget**. Since the tax base is limited, these resources are also limited and are often not sufficient to cover even the cost of basic health services for the population. General **taxation** and other forms of government revenue are more effective, efficient and equitable methods of raising revenue for the financing of social services than **cost-sharing** mechanisms.
Human resources are the most important and the most expensive resources in health service delivery in developing countries. Closely related to the issue of human resource development is health systems management. Availability of competent managers at all levels of the health system is vital for a well-functioning health system and for a cost-effective use of scarce resources. A major function of health services is the provision of drugs and other commodities for health. This is a complex and problematic area in most countries that ranges from cost-effective and quality procurement, to distribution and provision of essential drugs at all levels of the health care system and also including rational use. Contributions to the financing of investments in tangible assets by credits with different level of concessionality can in some circumstances be possible.

Contact Information: Please call us, send us a fax or e-mail or visit us at Sveavägen 20 in Stockholm, Sweden Tel: 08-698 50 00 Fax: 08-20 88 64 E-mail: sida@sida.se
Partners for Health Reformplus is USAID’s flagship project for health policy and health system strengthening in developing and transitional countries. The five-year project (2000-2005) builds on the predecessor Partnerships for Health Reform project, continuing PHR’s focus on health policy, financing, and organization, with new emphasis on community participation, infectious disease surveillance, and information systems that support the management and delivery of appropriate health services.

PHRplus focuses on the following results:

- Implementation of appropriate health system reform
- Generation of new financing for health care, as well as more effective use of existing funds
- Design and implementation of health information systems for disease surveillance
- Delivery of quality services by health workers
- Availability and appropriate use of health commodities

PHRplus Involvement in NHA

On behalf of USAID, the PHRplus project has served as a global leader in assisting countries worldwide to implement the NHA methodology. To date, approximately 54 middle- and low-income countries have conducted NHA and more than half of these countries have done so after receiving technical assistance from PHRplus, either on an in-country basis or at a regional network level. PHRplus works closely with international agencies such as the World Bank, WHO (Geneva and regional offices), SIDA, EC, and EUROSTAT on methodological issues regarding NHA as well as on the regional the networks. PHRplus also organizes the biennial global symposium on National Health Accounts.

The project’s approach to assistance on the in-country and regional level is to help countries to use NHA findings for policy purposes and to institutionalize, or sustain, the methodology as part of regular government processes. On the in-country level, the project works with country NHA teams to plan the process of NHA implementation, determine the policy design of the study, learn the methodology itself, finalize survey instruments, troubleshoot data conflicts and collection issues, fill in the NHA tables, and disseminate results to decision makers.

In addition to its in-country work, the project serves as the principal coordinator of many regional NHA networks and their donor sponsors. Presently, PHRplus is affiliated with five networks: 1) Latin America and Caribbean (LAC), 2) Middle East and North African (MENA), 3) Anglphone African Network, and most recently 4) Francophone Africa, and the 5) Central Asia. Regionally, the project’s approach offers the technical component to network meeting s – such as the policymakers’ sensitization conferences to NHA, the three methodological training workshops, and a policymakers’ dissemination meeting.

Finally, the project is actively involved in helping nations to implement various NHA subanalyses, such as those specifically directed at capturing health care expenditures on HIV/AIDS and TB services, provincial/state (subnational) level health care services, care for the aged, and maternal and child health care provision.

For further information, visit us on the web at, www.phrplus.org, or contact the PHRplus project at:

Abt Associates Inc. Tel: +1 (301) 913-0500
4800 Montgomery Lane, Suite 600 Fax: +1 (301) 652-3916
Bethesda, MD 20814 USA E-mail: PHR-InfoCenter@abtassoc.com
IHE\(^1\) is a non-profit research institute that has been operating in Lund since 1979. Most IHE projects are funded directly by stakeholders in the health-care sector, both private and public.

IHE aims to contribute to well-founded decision-making in the health-care sector by providing health-economic assessments and policy analyses for public discussion. The applied research and commissioned reports undertaken by IHE are based on knowledge drawn from the cutting-edge of international research. IHE’s activities also comprise independent method development. Currently, IHE is conducting health-economic evaluations and analyses in the following areas:

- Evaluation of pharmaceuticals and medical technology
- Organization and financing of health care
- The Pharmaceutical Market
- Health care in developing countries
- Traffic safety and health

The studies performed by IHE are mainly published as articles in scientific periodicals, by external publishers, and in series of reports issued by other institutions. This independent review constitutes an additional quality assurance. Findings from IHE’s studies are also disseminated by way of the newsletter “IHE information” and the annual conference “IHE FORUM”.

Contact info: The Swedish Institute for Health Economic Box 212 S-220 02 Lund Phone: +46 46 - 32 91 00 Fax: +46 46 - 12 16 04 E-mail: info@ihe.se

\(^1\) Materials extracted from the IHE website: http://www.ihe.se/english/index.htm