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PARTNERS FOR HEALTH REFORMPLUS PROJECT END-OF-PROJECT REPORT

December 2006

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DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government



Mission

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 will focus 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.*

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SECTION I. INTRODUCTION

PURPOSE

This report gives a quantitative and narrative summary of the Partners for Health Reform*plus* (PHR*plus*) project over the contract performance period of October 2000 through September 2006, its accomplishments in key thematic areas, and lessons learned from implementation. PHR*plus* was the global flagship health project for USAID's Bureau of Global Health, Office of Health, Infectious Diseases and Nutrition (GH/HIDN). Abt Associates Inc. and eight partners implemented the project, along with 14 local institutions and dozens of developing country consultants. PHR*plus* reached its contract ceiling of \$98 million and served all five of USAID's Strategic Objectives (SO) for health, all six USAID regional bureaus, and 37 USAID missions. This report is complemented by the PHR*plus* EOP Conference Report "Better Health Through System Strengthening", more than 900 publications on the project website (www.phrplus.org), and the USAID external assessment in 2004¹.

BACKGROUND

PHR*plus* was USAID's third global project to focus on health financing and policy, following the Health Financing and Sustainability (HFS) project in 1989 (\$16.5 million) and the Partnership for Health Reform project in 1995 (\$58 million). Both predecessor projects reached their ceilings with significant demand from USAID field missions, reflecting important changes in developing countries' health sectors and a growing recognition that strong health systems are critical to achieving and sustaining USAID's health SOs.

Health system strengthening grew out of the desire for sustainability of child survival and other disease-specific service delivery programs of the 1980s. As programs encountered "systems" obstacles – reduced government and donor funding that prevented introduction of new vaccines, the impact of health sector decentralization and private-sector provision of services; competition from other health care needs such as HIV/AIDS-related illness, and others – USAID began to recognize the need to understand these systems obstacles and address them. Examining the financing of oral rehydration therapy, immunization, and other child health programs under the 1985 REACH project (Research for Child Health) expanded to a series of global projects in health system financing and related issues, starting in 1989 with the HFS project.

The 1990s saw a wave of health sector reforms in developing countries, many of them driven by the hope of generating resources for health care: from the top down came the institution of user fees at public health facilities, social health insurance, separate health purchasers or funds, and public-private partnerships, among others; from the bottom up came community-based health financing. Many reforms engendered legal and policy changes; for example, decentralization of health systems, hospital autonomy, and the Integrated Disease Surveillance and Response methodology all required granting lower levels of the health system new authority and responsibilities. HFS studies on resource generation and allocation as well as health system organization and health care policy reflected these new issues, as did PHR work.

¹ POPTech. August 2004. *Assessment of the Partners for Health Reformplus (PHRplus) Project*. LTG Associates Inc.

The landscape of foreign assistance for health was also growing more complex with the emergence of “basket” donor funding for health (and the related Sector-wide Approach, or SWAp), broad health sector reform programs supported by other multi- and bilateral agencies, and new global initiatives such as the Global Alliance for Vaccines and Immunization (GAVI). The decade also saw the rise of the HIV/AIDS pandemic and its erosion of some of the gains in health status achieved previously. In addition, operational changes in assistance took place, with more focus on implementation, and research focused primarily on informing that implementation. Also contributing to this was the proliferation of earmarking of SO funding streams (and adding HIV/AIDS and infectious disease surveillance SOs to the already existing reproductive, maternal and child health SOs) and decline in “core” budgets that had traditionally funded systems-oriented work. As a result, PHR*plus* received most of its funding (78 percent over the life of the program) and provided most of its technical expertise to USAID missions (rather than to USAID/Washington, as in earlier years of health system strengthening efforts), responding to a quickly changing environment and requests for assistance from ministries of health and other partners.

PROJECT APPROACH TO HEALTH SYSTEM STRENGTHENING

The launch of PHR*plus* in 2000 coincided with the release of the WHO *World Health Report* that focused on the performance of health systems as integral to addressing priority health issues. USAID also recognized the importance of strengthening health systems, initiating the project with the same Strategic Objective as that for USAID GH/HIDN’s health policy and health system strengthening results package: “To improve health system performance in delivering PHN (Population, Health and Nutrition) priority interventions.”

Health system strengthening may require changes in national policies, programs, and practices; in health sector priorities, laws, regulations, organization and management; and in financing arrangements. To respond to these needs, PHR*plus* offered an array of initiatives and strategies aimed at improving the functioning of a health system or any of its subsystems in terms of access, quality, equity, efficiency, and/or sustainability.

At the field level, PHR*plus*’ approach was to customize assistance to the country context and client needs. Assistance could be as targeted as a PHR*plus* staff member helping Tanzania to write a grant to the Global Fund, or Uganda to do its financial sustainability plan for GAVI, or much broader, such as a survey to inventory (in terms of infrastructure, ownership, services, equipment, financing) all health facilities in USAID’s five target governorates in Yemen to develop capacity for evidence-based planning and budgeting. While this customized approach resulted in tremendous demand from USAID missions, it also presented a challenge to pursuing a broad systemwide program in most countries, and a perception by some that project activities were “fragmented”.

Still, work in some countries was indeed comprehensive. In Georgia, Ghana, and Tanzania, PHR*plus* led the restructuring of national infectious disease surveillance systems. It worked with ministries of health; other country, donor, and U.S. agencies; and nongovernmental institutes and organizations to conceptualize restructuring; advocate for legal changes to permit reform; develop tools, job aids, and information systems; train all levels, from the ministry level to district and local health facilities and sometimes even community members, in data collection, analysis, reporting, and response; provide ongoing technical assistance to those workers; and, in the case of Georgia, roll out reforms nationwide. In Jordan, PHR*plus* assisted with comprehensive restructuring of the Ministry of Health hospital system, preparing hospitals to operate more independently in terms of changing ministry operating procedures; analyzing costs; establishing new human resource, medical records, and pharmacy control systems; and examining ways to better deliver services and increase patient utilization and satisfaction. In Albania,

PHR*plus* promoted an integrated approach to health reform and built capacity across areas of primary health care delivery, including organization, management, and evaluation; quality assurance systems; a health information system that provided data for decision making; and finance, planning, and budgeting. In El Salvador, PHR*plus* concentrated its technical assistance on rural Integrated Basic Health Care Networks, doing strategic planning for supplies, equipment, and maintenance; budgeting; monitoring and evaluation; child health (IMCI, guidelines to evaluate achievements in maternal-child care); reproductive health (logistics system for contraceptives, creation of maternal-perinatal units); HIV prevention, counseling, and testing; and implementing an epidemiological surveillance system.

At the global level, PHR*plus* compiled, documented, and disseminated cross-country lessons in its thematic areas (see Section 2). For example, building on its experience in working with individual community-based financing schemes and federations of schemes in West and East Africa, it did research on scheme financial sustainability in three West African countries, all of which have numerous and relatively long-lived schemes but different structural arrangements, coverage of PHN services, and relationship to government, to learn lessons that will help ensure sustainability of community-based financing movement, and thus access to quality and affordable health care especially for rural and poor populations. Findings and lessons learned were detailed in technical reports, operational publications, and tools and lessons to help other schemes sustain themselves and in some cases to “roll-out” nationally. National Health Accounts, another key theme of PHR*plus*, also did cross-country analyses, based on individual countries’ analyses of expenditures on their overall health systems and on priority health services like HIV/AIDS, malaria, and reproductive and child health. These countries also used the data for health care financing and other policy decisions, and monitoring outcomes of those decisions. As stated in the external assessment, “PHR*plus* has demonstrated strong technical leadership in health systems work through its range of products, research, published materials, and web site. It has amassed enormous intellectual capital which redounds to USAID’s credit, both internally and externally.”

ORGANIZATION OF THIS REPORT

The remainder of this report consists of three main sections: a progress report on the significant changes in key project thematic areas since PHR*plus* began in 2000; a summary of project funding, activities, and results across 37 countries, six regional bureaus, and USAID’s five health SOs; and major lessons learned from implementation of a global flagship project of the scope and size of PHR*plus*.

SECTION 2. THEMATIC AREAS

Over the life of the project, USAID and PHR*plus* identified key thematic areas in which there was a body of work across multiple country and Strategic Objective (SO) clients, and in which identifiable progress was being made. This section discusses those thematic areas. Many of the areas show how systems initiatives move up the development “ladder”.

NATIONAL HEALTH ACCOUNTS

National Health Accounts (NHA) implementation and capacity building was initiated during the predecessor Partners for Health Reform project, which assisted seven countries to conduct NHA estimates, collaborated on establishing the first regional NHA network (Latin America and the Caribbean), and led a joint effort to create the *Guide for producing National Health Accounts* (the “Producers’ Guide”). NHA since has expanded, with an increasing number of countries implementing NHA estimates (more than 30, with some doing estimates in multiple years) and regional networks forming. The project provided global leadership for this expansion, providing direct technical assistance to implement general NHA analyses in 12 countries and helping countries to apply NHA findings to policy making. Among results, public financing of health care increased in Kenya and Rwanda, Jordan initiated a rational drug use strategy, and Peruvian regional health authorities used regional NHA data for resource allocation decisions. PHR*plus* also provided financial and technical support for the evolution of NHA at the regional and global level by organizing regional workshops, establishing and supporting regional networks, and organizing NHA symposiums for global participation. To expand NHA training and capacity building, PHR*plus* included in its technical assistance the development of a cadre of experts in country, and it produced the *National Health Accounts Training of Trainers* manual, available in English, Spanish, French, and Russian. Another aspect of NHA’s evolution are new disease- or service-specific subanalyses (HIV/AIDS, malaria, child health, reproductive health) for which PHR*plus* developed new methodological guidelines; 15 subanalyses were implemented by the end of the project, and PHR*plus* led the collaborative effort to write the *Producers’ Guide* annex on subanalysis and other training materials on subanalysis methodology. In addition to being valued by country decision makers, USAID missions, and global development agencies, the Millennium Challenge Corporation now recognizes NHA as a key indicator for policy making, this having been recommended as “a sensible starting point for further investment” in the Center for Global Development Global Health Indicators Working Group Report, *Measuring Commitment to Health* (August 2006). Next steps up the NHA ladder include institutionalizing NHA within countries (committing manpower and funding in the government budget to carry out analyses on a regular basis), expanding use of NHA data to inform health system policies and management, and strengthening regional networks.

COMMUNITY-BASED HEALTH FINANCING

PHR*plus* work on community-based health financing (CBHF) also demonstrated how systems initiatives move up the development “ladder”. The past decade has seen phenomenal spontaneous growth in the number of CBHF schemes, especially in West Africa. West and Central Africa saw growth from 76 schemes in 1997 to 366 in 2003; in Senegal alone, the number of schemes grew from 19 to 79 in those years. Ghana had four CBHF schemes in 1999 and 159 in 2003. Since passage of Ghana’s Health Insurance Act of 2003, these private schemes have been replaced by district-based schemes that by 2005

existed in 109 of 123 districts. In 2006 in three countries in Eastern Africa (Kenya, Tanzania, Uganda), PHR*plus* counted 55 schemes with more than 120,000 members. In Rwanda, where approximately 40 percent of the population belongs to a scheme, there are roughly 300 schemes with more than 3 million members. PHR*plus* (and others) facilitated and guided the growth and strengthening of the schemes through technical assistance and the development and dissemination of tools for scheme start-up, design, and management. Later, federations of schemes began to form to: (1) provide forums for exchanges of information and assistance and (2) represent the CBHF “movement” in policy forums as governments became interested in them. PHR*plus* facilitated these changes by supporting the federations as ways to institutionalize and scale up technical assistance and to help governments find appropriate ways to help the movements grow. Further, PHR*plus* facilitated learning across countries and across Africa by providing expertise, information, and organizing exchanges among East, West, and Central (particularly Rwanda) Africa and collaborating with regional organizations such as *La Concertation*. PHR*plus* also conducted applied research in Ghana, Mali, and Senegal that identified operational issues that need addressing and demonstrated the positive impact of the schemes on use of priority services and household income protection. In 2005, the Global Fund awarded Rwanda a US\$14 million health system strengthening grant to expand coverage of CBHF to include the poorest and most vulnerable people living with HIV/AIDS. The next rungs on the CBHF ladder include more-focused work on addressing quality of care through CBHF schemes, promotion of the use of preventive services and products through schemes, and additional work on scaling up and the role of governments.

COLLABORATION WITH AND LEVERAGING OF GLOBAL INITIATIVES

This thematic area reflected USAID’s recognition that health systems can best be strengthened through a coordinated effort of donor agencies and programs to leverage resources, avoid redundancies, and enhance impact. Over the six years, PHR*plus* systematically worked with other organizations in its country programs, and provided critical technical input into global health initiatives like the Global Alliance for Vaccines and Immunization, the Global Fund, and the Roll Back Malaria (RBM) Partnership. In collaboration with WHO, PHR*plus* provided input into the revision of the GAVI Financial Sustainability costing tool and guidelines. PHR*plus* launched an international network of researchers to study the system-wide effects of Global Fund grants in four countries to inform the Global Fund and country stakeholders of the positive and potentially negative impact of assistance focused on a single disease. PHR*plus* worked with the Ministry of Health of DR Congo, the World Bank, and RBM to estimate the cost of switching to Artemisinin-based combination therapy for malaria, leading to a decision by the World Bank to include a \$30 million malaria component into its health sector loan. PHR*plus* assisted the TB Green Light Committee and TB Global Drug Facility with strategic and operational planning to expand developing country access to discounted drugs to fight multi-drug resistance. The new NHA subanalysis methodologies for reproductive health, child health, malaria and HIV/AIDS were the product of PHR*plus*’ extensive collaboration with major international stakeholders (e.g., World Bank, WHO, UNAIDS, RBM, Child Health Partnership) and informed by field implementation with country teams. PHR*plus* actively participated in the UNAIDS Resource Tracking Consortium by preparing materials, presentations, and identification of gaps and guidance on new directions for resource tracking efforts. Examples of collaboration at the country level include: (1) In Peru, PHR*plus* leveraged Inter-American Development Bank funds to scale up the use of a targeting methodology developed for the health sector, to all social and poverty alleviation programs; (2) WHO/AFRO has adopted the costing protocol for infectious disease surveillance developed by PHR*plus* in Tanzania as the model on which future costing research in the WHO/AFRO countries would be based; (3) In Yemen, PHR*plus* collaborated with UNFPA to establish a midwives association.

HIV/AIDS

PHR $plus$ has seen the initiation of global initiatives to fight HIV/AIDS, and it contributed critical technical input to the fight at the global and country levels to increase attention on financing and sustainability issues and improve policies. In 2002, PHR $plus$ collaborated with the Policy Project to estimate the cost of scaling up antiretroviral treatment (ART) in several Africa countries to inform the design of PEPFAR. In Uganda, PHR $plus$ assistance achieved consensus on the country's ART policy across multiple working groups so the country could move to program planning, implementation, and successfully secure resources from the Global Fund. PHR $plus$ assisted local teams in six countries (Kenya, Rwanda, Zambia, Ukraine, Vietnam, and Malawi), to use the NHA HIV/AIDS subanalysis to quantify HIV/AIDS expenditures. The subanalysis provide a baseline from which to measure future investment in and use of resources for HIV/AIDS and focus policymaker and donor attention on the impact of HIV/AIDS costs on poor households, the need for predictability of donor funding to ensure access to ART, and opportunities to improve coordination between government and multiple donors. One measure of the impact of the work of PHR $plus$ and others is the growing prominence of financing and health system issues by the global initiatives, for example, Global Fund recognition of the need for health system strengthening components in their grants, starting in 2004. The 2006 UNAIDS Global Conference in Toronto had many presentations and panels devoted to these issues, compared to an almost total absence of discussion at previous conferences in Durbin (2000), Barcelona (2002), and Bangkok (2004).

According to recent UNAIDS data, the number of people in sub-Saharan Africa receiving ART rose eightfold (100,000 to 810,000) from 2003 to 2006. PHR $plus$ has helped facilitate ART scale-up by strengthening three main aspects of health systems: human resources, information systems, and financing:

- Human resource constraints to ART scale-up and the health sector overall have become apparent and are beginning to be analyzed and addressed. PHR $plus$ assisted the governments of Cote d'Ivoire, Ethiopia, Kenya, and Zambia to study the existing stock of human resources, estimate future human resource needs for scaling up HIV/AIDS care, and recommend potential options for addressing gaps. PHR $plus$ ' paper entitled "Assessing the Human Resource Need for Expanding HIV/AIDS Services in the 15 PEPFAR Focus Countries" appeared in the Institute of Medicine of the National Academies' *Healers Abroad: Americans Responding to the Human Resource Crisis in HIV/AIDS* (2005).
- Information systems needed for ART clinical, policy, and management purposes have been recognized and PHR $plus$ has successfully piloted integrated ART information systems into overall health information systems and health management information systems in Kenya.
- Estimates of the overall ART scale-up costs show the long-term challenges of financial sustainability and the risks that ART costs could compete with other HIV activities (e.g., prevention) and other health programs. PHR $plus$ developed the AIDSTreatCost software model, which uses country specific data to help governments craft realistic, evidence-based cost estimates for national ART policies and programs. The model was used to inform policymakers in Uganda, Nigeria, and Mexico.

INFECTIOUS DISEASE SURVEILLANCE

Infectious disease surveillance, a key public health system responsibility, involves systematic collection, analysis, and interpretation of data and the dissemination of the resulting information to health workers and other individuals who can effectively respond to contain the spread of disease. PHR $plus$ worked extensively in three countries (and did significant but more targeted work in three others) that shared

problems common to many developing countries: failure of the public and the health system to achieve high levels of immunization; lack of national standards in reporting and responding to disease outbreak, which is more often handled through individual programs or not at all; lack of lab facilities to confirm disease; and failure of individuals and/or the health system to respond adequately by seeking or providing proper care. PHR*plus* improved disease surveillance and control by: (1) creating policies and standards for nationwide use, including the adoption in African countries of the WHO/AFRO integrated disease surveillance and response (IDSR) methodology; (2) improving health worker capacity, efficiency, and motivation at facility, district, and regional levels through training, software tools, and job aids; and (3) strengthening linkages and communication across levels and various programs of the health system. As a result, accuracy and efficiency of the countries' IDSR systems improved greatly, as evidenced by rapid confirmation and control of outbreaks of meningitis in Ghana in 2004 and polio in Yemen in 2005, and mobilization of health workers to fight avian influenza in Georgia in 2005. In addition, WHO/AFRO is using a costing protocol for infectious disease surveillance developed by PHR*plus* in Tanzania.

ACCOUNTABILITY

Accountability has emerged as an important new direction in improving health system performance. Development assistance agencies agree that accountability is essential to ensure effective delivery of social services, especially for the poor; that health system actors have significant power to affect people's well-being, that funds flowing into countries for health care must be properly used, and that health care reform efforts without accountability mechanisms can hamper health system performance. In DR Congo, PHR*plus* conducted case studies of the governance of semi-autonomous health zones and recommended a rethinking of the Charter of Mbanza-Ngungu that provides their framework. In Peru, it assisted with the implementation of citizen referendums to set health priorities to which regional authorities could be held. In Senegal and Benin, PHR*plus* helped national governments develop strategic frameworks for promoting community-based health financing that preserve the community accountability features of schemes. PHR*plus* contributions to improve accountability also included development of information systems to track clinical, immunization, and management information and training on using those systems and applying results of data analysis; technical assistance on contracting and other components of transparent provider payment; facility and household surveys to inform policy, identify barriers to service delivery, and ensure quality of care. The ANE Regional Bureau held a regional anti-corruption workshop in Bangkok in May 2006, at which PHR*plus* presented on accountability in the health sector. Health governance became a central component of USAID's follow-on project, Health Systems 20/20.

SECTION 3. SUMMARY OF RESULTS

This section summarizes all PHRplus work, with the associated funding level, grouped by type of funding: core–common agenda, core–directed, and country activities. Cross-cutting activities were funded by core–common agenda that came from the three Strategic Objectives (SO2-Maternal Health; SO3-Child Health; SO5-Infectious Disease) within the Global Bureau’s Office of Health, Infectious Disease and Nutrition (HIDN)². Core-directed refers to core funding for activities defined by each of the five SO teams. Country activities were funded by field support funding from USAID’s regional bureaus and field missions.

I. CORE – COMMON AGENDA

NATIONAL HEALTH ACCOUNTS

PHRplus’ strategy with common agenda National Health Accounts (NHA) funding was to leverage experience gained from implementation of NHA in countries to inform global technical leadership, and to collaborate extensively with WHO, the World Bank, the Swedish International Development and Cooperation Agency, Roll Back Malaria Partnership, and other donors to promote consensus on NHA methods. This standardization of the NHA methodology facilitated building local capacity, laid the foundation for countries to use NHA findings for benchmarking health system performance, and enabled cross-country comparability of NHA findings. Over the life of the project, common agenda investments in NHA were used to: (1) lead a collaborative approach to design the agenda for three global NHA symposiums, in 2001 (York, England), 2003 (San Francisco), and 2005 (Barcelona) and provide the majority of technical materials; (2) develop a cadre of local, in-country experts through the *National Health Accounts Training of Trainers* manual; (3) leverage regional bureau funds to make the English-language training manual available in Spanish, French, and Russian; (4) develop guidelines for four new NHA subanalysis methodologies that track expenditures for a specific disease or service (HIV/AIDS, malaria, child health, reproductive health) by leveraging the project’s 15 field experiences implementing the subanalyses; (5) lead a collaborative effort to write the annex on subanalysis for the *Guide for producing National Health Accounts* (the “Producers’ Guide”); (6) contribute to the scientific literature on tracking health resources: *Linking indicators from NHA and the NHA/HIV/AIDS subanalysis to health policy goals*; and *Meeting MDGs: Using NHA to Understand Reproductive Health Financing*; (7) provide detailed technical input at various resource tracking initiatives such as the annual meeting on NHA of the Organization for Economic Cooperation and Development (OECD), the multi-donor working group for NHA, and the Health Metrics Network; (8) contribute heavily to the WHO-maintained NHA website; and finally, (9) manage the portfolio of NHA activities across the project (see table in Annex A) to ensure quality, consistency, and coordination with the numerous external stakeholders; and rapid response to regular and ad hoc reporting to USAID.

² While the Health Systems Division within the Global Bureau Office of HIDN had a Health Policy and Systems Strengthening (HPSS) results package “to improve health system performance in delivering PHN priority interventions,” and several projects including PHRplus, the division did not have its own budget resources.

COMMUNITY-BASED HEALTH FINANCING

Community-based health financing (CBHF) schemes (also known as mutual health organizations, or MHOs) are increasingly popular, especially in Africa, with poorer segments of the population, which seek better access to quality care. CBHF schemes exist in different forms but share challenges of maintaining or growing their membership, collecting premium payments from members, projecting and controlling the cost of health services, and ensuring that covered services meet member needs and expectations. Donors and national governments are interested in supporting CBHF schemes but there has been a lack of evidence of their impact and sustainability. PHRplus performed research that included household surveys in three African countries to look at household variables affecting scheme membership, the effect of membership on use of health care services, and challenges to enhancing scheme impact. This work was requested by USAID, ministries of health, and other donors and based on earlier project technical assistance and capacity building of MHOs.

- In 2003, the National Insurance Act of Ghana mandated the establishment of district-based schemes. PHRplus did a baseline evaluation in six districts of the existing private, community and professional association-based schemes before the mandated schemes were established. Findings demonstrated that enrollment offers household income protection for serious health issues (including prenatal and delivery care), resulting in two times higher utilization of formal outpatient care. A follow-up survey is planned to measure the impact of the National Health Insurance Act.
- In Mali, scheme membership was a positive predictor of use of several priority services (treatment in modern facilities of children with fever, diarrhea; prenatal care; bed nets) and offered a degree of income protection to households, but additional protection measures are needed, and scheme sustainability is in question.
- In Senegal, the study found that scheme membership is affordable to even the poorest (though a few schemes lent members their premium payment). The Senegal study demonstrated that membership in a MHO with high inpatient care coverage has a strong protective effect on the levels of out-of-pocket expenditures. At the individual level, although most MHOs in the three study sites promote the enrollment of all household members, the Senegal and Mali study sites suggest that individuals with a physical disability or chronic illness are significantly more likely to enroll in MHOs than their healthier counterparts (adverse selection).

In addition, PHRplus collaborated with ILO/STEP, GTZ, AWARE/RH, and several West African groups, to support *La Concertation*, a federation of CBHF schemes in West Africa. PHRplus consolidated its experience in CBHF strengthening in two legacy products: *Innovative Strategies for MHOs* (with associated tools created by schemes to facilitate implementation of the strategies) and *Approaches to Scaling-up CBHF Schemes*.

GLOBAL ALLIANCES

PHRplus worked with U.S. agencies, and international and in-country organizations in many capacities, and these activities are described throughout this report. This section discusses the project's specific contributions to global alliances:

PHRplus led the creation of the SWEF (Systemwide Effects of the [Global] Fund) research network, a worldwide group of universities, institutes, nongovernmental organizations, and programs that investigate how the targeted assistance of the Global Fund affects entire national health systems – and the care they deliver. PHRplus led the design of the research protocol and hosted a website for SWEF

members to interact and coordinate. PHRplus assisted local teams in Benin, Ethiopia and Malawi design and implement SWEF studies in close collaboration with each country's Global Fund coordination mechanism (CCM). PHRplus research in Ethiopia, for example, resulted in the Global Fund and PEPFAR signing a memorandum of understanding to harmonize their activities. In Benin and Malawi, Local Fund Agent assessments led to by-passing of national commodity systems in order to "speed up" Global Fund procurement, so local system was not strengthened. Where an existing system was used (Ethiopia), procurement was slow to start, but now there is clear evidence of internal improvements. In Benin, the Global Fund insecticide-treated nets had different pricing and cost recovery mechanisms from other initiatives, but by the follow-up SWEF study, the approaches had been harmonized.

PHRplus helped to organize the "Montreux Challenge" meeting of donors, WHO, the World Bank, the Global Alliance for Vaccines and Immunization, and the Global Fund in April 2005 to discuss the state of the art of health system strengthening and a shared agenda for assisting developing countries. Soon after, in May 2005, PHRplus hosted a forum on strengthening health systems at the Global Health Council Meeting. One outcome of this forum was the launch of the Health Systems Action Network (HSAN) dedicated to increasing the voice and influence of developing country stakeholders in international health initiatives. PHRplus incubated HSAN through stakeholder consultations regarding HSAN's purpose and structure; design and maintenance of the HSAN website (www.hsnet.org), and co-sponsorship (with the British Department for International Development, and the Gates Foundation) of the first meeting of 31 developing country representatives (August 2006) so they could take the lead in determining the structure and role of HSAN.

MONITORING AND EVALUATION

PHRplus was a performance-based contract. Project monitoring and evaluation (M&E) activities had two objectives: to track how project work achieved results expected under the contract; and to track how project technical work improved health system performance in "demonstration and research" countries, especially in delivering priority services. To fulfill the first objective, the M&E team, in conjunction with the cognizant technical officer, developed annual performance indicators. The M&E team guided staff who were assigned as "Indicator Managers" to collect data on each indicators. Results were reported to USAID in an annual Performance Evaluation Report and a formal presentation to the Performance Evaluation Board. The Board consistently evaluated the Project's performance as excellent. The Project's final results against its end-of-project targets are presented in Annex C.

Regarding the second objective, due to limited core funding, PHRplus had only one demonstration and research country, Albania, where it worked to improve primary health care delivery in four pilot facilities. A rigorous evaluation, based on data gathered through facility (n=26 facilities, 110 providers) and household (n=2,000) baseline and follow-up surveys, was built into the workplan. Impacts included a sharp increase in contraceptive use (from 4.5 percent to 7.6 percent) compared to no change in control districts, a decrease in bypassing of primary care facilities (from 43 percent to 23 percent), and evidence of increased use of data for clinical and managerial decision-making.

M&E work also produced technical reports of international interest: one, on contracting of services, was presented at a WHO consultation on health sector reform and reproductive health; another, on decentralization, was presented at the 2005 Global Health Council Conference and adopted for use in Peru. M&E also delivered several discrete assignments such as developing the results format for country activity plans which were required for all country programs of \$250,000 or more; data analysis that assessed the World Health Report 2000 (WHR 2000) approach for measuring national health system efficiency; and preparation of a technical paper explaining the linkages between Health System Strengthening Activities and Priority Service Delivery and Health Outcomes ("Stepping Stones").

DEVELOPING AN EVIDENCE BASE

Information underpins the learning, research, and debate that drive health systems strengthening. PHRplus published hundreds of information products (more than 30 tools and job aids, 115 technical reports, dozens of less technical “briefs”, videos, etc., primarily in English but also in Spanish, French, Arabic, and Russian). The products captured project experience and knowledge and transferred virtually all of this, through dissemination via mail/e-mail and at conferences and meetings – but most especially its website. PHRplus’ Editorial Services unit ensured rigorous technical review and readability of products. The Information Dissemination unit disseminated that work (for example, nearly 100 thousand documents were disseminated in project year 5 alone), and added to it by responding to information requests (3-4 thousand per year) and growing a bibliographic database of PHRplus and other documents (adding 5-6 thousand per year). PHRplus maintained a Resource Center of thousands of books, reports, articles, and other publications on the project premises. At the end of the project, all the Resource Center materials were donated to New York University. The Website unit constantly updated and posted new material and maintained special pages for the HSAN (Health Systems Action Network) and the SWEF (Systemwide Effects of the [Global] Fund) research network. The website had nearly 1 thousand registered users, and in project year 5 nearly 200 thousand visitors from 132 countries. Over the life of the project, nearly 2 million PDFs were viewed. The website earned kudos from USAID staff, other donor organizations, health sector professionals, and academics and students for the quality and accessibility of information. USAID, WHO, and universities in the U.S. and abroad use PHRplus products for training, the National Library of Medicine has more than 100 of the technical reports in its collection, and many were adopted for use by organizations such as university libraries and websites such as that of the Population and InfoShare website.

HEALTH SYSTEM ACCOUNTABILITY

PHRplus addressed accountability issues in its systems work. In 2002, PHRplus prepared a concept paper “Building Consumer Accountability in Health Care” that identifies and presents a typology for different types of accountability mechanisms used in health system strengthening. In Albania, the project examined the practice of requiring informal payments to health care providers through targeted questions in the household surveys and focus groups among providers and consumers. Health financing policies, weak facility oversight and other factors were found to contribute to provider incentives to demand such payments and patients’ obligations to pay them. PHRplus also published the popular report, *Accountability and Health Systems: Overview, Framework, and Strategies*, which discussed accountability-enhancing strategies and included an assessment matrix tool to map accountability linkages and actors’ interactions, showing where there are too few or too many accountability linkages. Later, in its *Insights for Implementers* series, PHRplus published *Improving Primary Health Care by Strengthening Accountability in the Health Sector*.

OTHER COMMON AGENDA ACTIVITIES

Additional activities that received some common agenda funding were: (1) Implementing health system strengthening that was the early classification for the research and demonstration sites that eventually was subsumed under M&E. (2) Stakeholder participation that covered an initial literature review and development of a framework but was closed in 2002 at the request of USAID. Extensive stakeholder participation continued as a project practice across all field and global activities. (3) Research that covered the project’s initial development of a research agenda, a multi-year strategy for implementing the research and demonstrations sites, and a publication on major field experiences with piloting health sector reforms. Lack of core funding limited the research agenda to the multi-country studies of

community-based health financing (see above). (4) Training that covered one part-time training coordinator but limited core funding eliminated the position in 2004.

II. CORE – DIRECTED

Directed core activities reflected the priorities and direction of each of USAID’s five Strategic (health) Objective teams. PHRplus co-funded many of these activities with field support funds to ground them in field implementation experiences and to accomplish more results.

SOI – REPRODUCTIVE HEALTH

Despite long-term government and donor support of reproductive health (RH) services, utilization of these services remains low in many countries, and especially among rural and poor populations. Low utilization may be attributable to lack of availability or access to good quality services and commodities, or to lack of demand. Also, there is concern that donor basket funding and global initiatives focused on specific diseases may siphon resources from RH care. PHRplus collaborated with international organizations, various levels of host governments, and nongovernmental groups to develop advocacy tools to overcome these obstacles.

With WHO, UNFPA, and other donors, PHRplus developed the National Health Accounts RH subanalysis based on the project’s field experience implementing RH subanalysis in Rwanda, Jordan, and Egypt. In Rwanda, where donors paid for 80 percent of RH expenditures, the Ministry of Health used findings to advocate for greater domestic policy support of and financial commitment to family planning. Findings also had policy implications in Jordan, where nearly half (46 percent) of RH financing comes from households, mostly out-of-pocket, which penalizes poorer groups; only 38 percent comes from public sources – this in a country committed to decreasing the population growth rate.

SOI cofunded the baseline and follow-up studies of the systemwide effects of the Global Fund (SWEF) that revealed some health worker shift away from priority services such as family planning, but also improved systems for commodity procurement in Ethiopia (less so in Malawi). A literature review of the Sector Wide Approaches (SWAs) and Poverty Reduction Strategy Papers³ in Ghana, Zambia, and Bangladesh found that policy and financial commitments to RH commodities were missing. PHRplus prepared a case study of Rwanda’s successful experience in protecting RH funding. The Rwanda Case Study was disseminated at the Mini MAQ and the Contraceptive Security workshop in Tanzania (November 2005), where PHRplus staff assisted country teams to apply the lessons learned to their own countries.

USAID’s Strategic Pathway to Achieve Reproductive Health Commodity Security (SPARHCS) is a tool for assessing the security of RH commodities and identifying ways to address gaps. PHRplus contributed health financing expertise to the development of SPARHCS, which is led by USAID’s Contraceptive Security and Logistics Division. PHRplus also collaborated on applying the SPARHCS tool in Madagascar, leading to the creation of a multi-sectoral committee to improve contraceptive security.

³ Poverty Reduction Strategy Papers (PRSP) describe the country's macroeconomic, structural and social policies and programs over a three year or longer horizon to promote broad-based growth and reduce poverty, as well as associated external financing needs and major sources of financing. (<http://www.imf.org/external/np/prsp/prsp.asp>)

Finally, PHR*plus* conducted a study of community-based health financing schemes in Senegal that resulted in a brief for international donors and a longer technical paper. The study showed that although knowledge and use of contraceptives in that country is limited (contraceptive prevalence is less than 10 percent), traditionally, few schemes covered or advocated for such services. The documents suggest ways that the schemes can be used to support RH services, such as tapping the growing interest in RH service coverage among women's groups that form schemes. PHR*plus* also collaborated with the Private Sector Partnerships-One project to publish three "primers" on the effect of health system strengthening on RH, specifically looking at contracting, insurance, and vouchers.

It should be noted that additional RH results were achieved with field support funding for system strengthening: As discussed elsewhere in this report, for example, PHR*plus*' work with four Albanian primary care facilities to improve service delivery, community education, and financing contributed to increased utilization of modern contraceptive methods (4.5 percent to 7.6 percent). In El Salvador, a computerized logistics system (and training) improved management – and thus quality of and access to – contraceptives, especially in rural areas.

SO2 – MATERNAL HEALTH

PHR*plus*' work with SO2 directed funds has focused on reduction of financial barriers to skilled birth attendance. In the initial years, PHR*plus* helped bring together evidence and individuals to discuss ways of increasing the use of skilled birth attendance through financial and other levers. PHR*plus* hosted a meeting of financing and maternal health "notables" in 2001 and produced a series of presentations and documents on health insurance and financing in 2002-03 (e.g. for the International Women's Health Coalition, the White Ribbon Conference on Safe Motherhood, and for Family Care International). From 2003–05, PHR*plus* implemented an action research activity in Mali to examine the effects of information, education and communication campaigns and community-based health financing (CBHF) on use of skilled birth attendance and antenatal care in a rural district. As a result of SO2 investments through PHR*plus*, there is now a larger body of evidence on the relationship between use of key maternal health services and CBHF: key findings of these studies indicate that CBHF scheme members are more likely to use antenatal and delivery services than non-members. For example, 89 percent of pregnant scheme members delivered in a modern facility compared to only 64 percent of non-members. This evidence is being shared with schemes, public health officials, donors, and others to boost enrollment in schemes.

SO3 – CHILD HEALTH

PHR*plus*' efforts to improve child health focused on tracking child health resources and measuring the impact of community-based health financing on use of child health services.

PHR*plus* conducted household surveys to measure the impact of membership in community-based health organizations on use of child health services. In Senegal, the survey found that insured under-5 children were three times more likely than uninsured children (57 percent vs. 18.5 percent) to seek care upon falling ill. In Mali, insured under 5s with fever were almost more likely to seek care (70 percent vs 47 percent) and those with diarrhea were seven times more likely to seek care; twice as many under 5s – of all income quintiles – slept under insecticide-treated nets.

National Health Accounts subanalyses contributed specifically to child health: PHR*plus* led collaboration among WHO and other members of the Child Survival Partnership to develop the child health subanalysis methodology that was implemented in Malawi and Ethiopia. In addition, expenditures on malaria, a major cause of childhood morbidity and mortality, were estimated in Rwanda using the malaria

subanalysis developed by PHR*plus*, WHO, and the World Bank. Policymakers used findings – which showed a preponderance of financing from households and donors, and going to curative services – to advocate that malaria funding be made proportionate to the burden of disease and to increase prevention efforts.

Related to childhood immunization, PHR*plus* provided extensive technical input to development of the Global Alliance on Vaccines and Immunization (GAVI) financial sustainability plan (FSP) methodology to forecast resource requirements and funding sources for national childhood immunization programs. PHR*plus* helped GAVI to test the tool in Ghana and Cambodia, and to prepare FSPs in Uganda, Tanzania, and Rwanda. PHR*plus* also helped Uganda to use the FSP to advocate for additional domestic and donor funding, to move toward program sustainability beyond the period of GAVI funding.

SO4 – HIV/AIDS

PHR*plus* provided leadership to regional and country teams in assessing HIV/AIDS priorities and determining short- and long-term achievable, sustainable strategies to strengthen the health system capacity for effective HIV/AIDS service provision. PHR*plus*' HIV/AIDS activities began by developing and implementing a new planning tool, the AIDSTreatCost (ATC) software, which estimates the human and financial resources required for delivering HIV/AIDS services, especially antiretroviral therapy (ART). Using the ATC model, costing of HIV/AIDS service provision requirements were conducted in Zambia, Nigeria, Ethiopia, and Uganda. PHR*plus* also innovated a Human Resource for Health assessment approach, and applied it in Zambia, Kenya, Ethiopia, Nigeria, and Cote d'Ivoire; determining how many existing personnel were available and how many additional personnel were required to meet Millennium Development Goals and PEPFAR targets. Results from PHR*plus* assessments in Kenya, Cote d'Ivoire, Ethiopia, and Zambia gave governments and development partners specific data/information about the quantity, distribution, attrition rates, and addition rates (new graduates) of health staff. Furthermore, data generated by PHR*plus*' assessments were used to motivate policymakers to make action plans and implement changes to address gaps in human resource staffing. In Cote d'Ivoire and Kenya, PHR*plus* assisted the Ministry of Health and USAID with the development of a Human Resources plan. In Zambia, the Ministry of Health used PHR*plus* findings to create a 10-year costed human resource plan. Financing options for HIV/AIDS treatment and care have also been conducted under PHR*plus*. NHA sub-analyses were performed in Kenya, Rwanda, and Zambia examining HIV/AIDS expenditures and their effect on the poor. The role of community-based health financing on HIV/AIDS expenditures was analyzed in Tanzania and recommendations from the analysis assisted both the government and REDSO to improve resource allocation, budgeting, and financial management practices.

SO5 – INFECTIOUS DISEASE

Core Strategic Objective 5 funds were used to co-fund field activities in three countries and conduct operations research to inform the scale-up of field interventions.

A four-year collaboration in Georgia improved control of vaccine-preventable diseases through a better immunization MIS. The MIS employed new surveillance guidelines, electronic and paper job aids, training, and continuous monitoring and support, first in a pilot region and – after endorsement by WHO and a Ministry of Health decree – nationwide by October 2005. With improved tracking of children and their immunizations, as well as of vaccine use and wastage, vaccine coverage (DPT-3) increased from 61 percent to 83 percent, and virtually 100 percent of health facilities felt more able to respond to disease outbreaks – demonstrated by prompt identification and control of a rubella outbreak in 2005. The reforms uncovered additional constraints in the public health service, which resulted in consideration of

new legislation to restructure the health service, increase public funding and local authority to respond quickly, improve laboratories and management, and create a national school of public health. As avian influenza became a potential threat in 2005, PHR*plus* helped Georgian health officials to produce a booklet outlining prevention and response measures for health workers.

In Ghana, PHR*plus* worked with the MOH National Surveillance Unit and Ghana Health Service, adapting WHO/AFRO and U.S. Centers for Disease Control and Prevention (CDC) guidelines and indicators for disease outbreak and response to the Ghanaian context, training, and improving supervision and support. In the three northern-most regions where PHR*plus* worked, accuracy of surveillance data rose from 46 percent to 85 percent in just one year (2004 to 2005). More concretely, local health facilities working with district and regional personnel were able to control an outbreak of meningitis in 2004. Similarly in Tanzania, PHR*plus* and partners (Ministry of Health, National Institute of Medical Research, CDC, and CHANGE project) used the WHO guidelines and training to improve data collection and use, and communication.

To assess the effectiveness of the infectious disease surveillance interventions in Georgia and Tanzania, PHR*plus* did operations research to document the implementation and perceived effectiveness of the work in promoting desired analysis and response and describe how individual and system factors influence that effectiveness. In Georgia, expected improvements in analysis and response did occur due to the intervention, but ultimately were limited by systems barriers. In Tanzania, while most components of the intervention were implemented as intended, two were implemented only partially. Quantitative evidence showed improvement was limited. This may be due to the short time between the baseline and follow-up surveys, and, like Georgia, the larger health system barriers in financing and management that limited impact of the infectious disease interventions.

More targeted project interventions were the following: In Cambodia in 2003, PHR*plus* brought together multiple government entities and donors to promote integration of TB and HIV/AIDS programs to combat the rising problem of co-morbidity. A national steering committee and workshops enabled the parties to standardize paperwork and share lessons on improving patient adherence, service delivery, and referral tracking.

As mentioned previously, PHR*plus* assisted the TB Green Light Committee and TB Global Drug Facility with strategic and operational planning to expand developing country access to discounted drugs to fight multi-drug resistance. In collaboration from the DR Congo Ministry of Health, the World Bank, and the Roll Back Malaria Partnership, PHR*plus* did a cost and cost-effectiveness studies of a switch to artemisinin-based combination therapy (ACT) for Malaria, which informed ministry and Bank estimates of funding needed to introduce ACT; as a result, the Bank included a \$30 million malaria component in its health sector loan to that country. PHR*plus* also performed a similar ACT study in Tanzania.

PHR*plus* provided technical expertise and approaches to WHO/EURO's European Infectious Disease Information Systems (EIDIS), in particular on the development of strategic plans, methodological materials, local training, program monitoring and evaluation, and sustainability of developed information systems.

SO5 – MAINSTREAMING

PHR*plus* was in the forefront of USAID/Global Health Bureau's Mainstreaming initiative, which integrates health system strengthening tools and expertise into USAID's bilateral and Strategic Objective-specific programs. PHR*plus* wrote a Technical Reference Material on health system strengthening for child survival private voluntary organizations. PHR*plus* also coordinated the design and

development of a Health Systems Assessment Tool in collaboration with the Rational Pharmaceutical Management^{plus} program and Quality Assurance project, and with input from the MEASURE project. The tool:

- Enables USAID missions to assess a country's health system, ideally during early phases of program development or sector planning. The assessment includes diagnosing the relative strengths and weaknesses of the health system, prioritizing key weakness areas, and identifying potential solutions or recommendations for interventions.
- Informs Population, Health and Nutrition (PHN) officers and Mission health teams about the basic elements and functions of health systems.
- Increases the capacity of bilateral projects to achieve USAID's health impact objectives through increased use of health systems interventions.
- Aids USAID's Global Health Bureau to conceptualize key issues, increase the use of health systems interventions in technical program design and implementation, and to improve the role of the Health Systems Division.
- Informs ministries of health and other stakeholders on the relative strengths and weaknesses of the health system, priority issues, and potential solutions or recommendations for interventions and programs.

The tool was designed to provide a rapid and yet comprehensive assessment of key health systems functions and related resources. It is organized around technical modules that guide data collection in the following areas: stewardship, health financing, service delivery, human resources, pharmaceuticals, and health information systems. The assessment tool was pilot tested in Angola in August 2005 and in Benin in April 2006. Assessment reports prepared in Angola and Benin are included as annexes to the manual.

III. COUNTRY

AFRICA

Democratic Republic of Congo

PHR*plus* collaborated with the USAID-funded SANRU III project to help re-develop and strengthen rural health service delivery weakened by years of conflict, unrest and neglect. PHR*plus* developed and tested financial management information system tools for roll-out by SANRU III to provide health facilities, reference hospitals, and zone-level administrators with an overall financial picture for the health zone, information on cost centers, budget and variance analysis, and drug stocks and management. The project also developed computer software for the improved management of drug stocks. It then trained personnel in the pilot health zones and SANRU III personnel to use the tools and provided a final report on the management information systems. In three health zones with different external support and reference hospital management, PHR*plus* completed case studies to examine the zone's legal and regulatory framework, internal organization, and practices. Drawing on extensive interviews, PHR*plus* evaluated each zone's performance in terms of effectiveness, efficiency, and equity in the provision of health services to the population. The performance measurement considered such environmental constraints as external support, socio-economic status of the population served, and infrastructure. The case studies helped USAID/DR Congo assess the how well health zones were functioning and better allocate resources to address needs. They also gave USAID/DR Congo concrete options for action to improve the performance of health zones.

Eritrea

PHR*plus* worked to strengthen management and financial systems in Ministry of Health hospitals and to rationalize the allocation and use of resources in hospitals. This work supported the USAID/Eritrea strategic objective to increase the use of primary health care services. In Eritrea, a large share of ministry resources are dedicated to investment and recurrent costs in the secondary and tertiary care levels of the health system. The share of resources spent on hospitals directly affect the quality of and access to primary health care services. In addition, Eritrea suffers from a severe shortage of medical personnel. To ensure that the ministry is able to allocate resources to primary health care, PHR*plus* helped it to:

- Improve management and financing of the hospital to increase efficiency;
- Rationalize expansion of the hospital system;
- Consolidate selected services in National Referral Hospitals;
- Expand cost recovery through increased hospital autonomy and community involvement;
- Increase retention of fees by demonstrating improved financial accountability; and
- Strengthen referral linkages between primary, secondary, and tertiary care facilities.

As a result, national, regional, and community hospitals and communities developed greater capacity and responsibility for governing Ministry of Health hospitals; implemented new financial control procedures in hospitals; and developed governing boards in two pilot hospitals which strengthened community

involvement, rationalization of new hospital staffing and services, and development of a long-term human resource development strategy. PHR*plus* worked closely with other USAID Cooperating Agencies, especially the Quality Assurance Project and the TASC Project in order to successfully complete these activities.

Ethiopia

PHR*plus* collaborated with the Essential Services for Health in Ethiopia Project to provide technical assistance to Ethiopia's National Health Accounts (NHA) team to conduct the subanalysis of reproductive health and child health expenditures within the context of a general NHA. PHR*plus* assisted the NHA team to design, review, and pretest the survey instruments; enter and analyze data; populate the matrices; and draft, review, and edit the final report. The results were disseminated in late September 2006 during the annual health sector review.

Through the Systemwide Effects of the Fund (SWEF) initiative, PHR*plus* helped policymakers in Ethiopia better understand the Global Fund's potential effects on the health system. The Ethiopia SWEF study focused on four important areas: the effects of the Global Fund on the policy process, public-private sector mix, human resources for health, and pharmaceutical and commodity management. A local research partner, Miz-Hasab Research Centre, carried out both the baseline and follow-up studies. PHR*plus* worked closely with stakeholders in Ethiopia over the course of the study and established a study steering committee with key members of Ethiopia's Country Coordinating Mechanism. Through SWEF, PHR*plus* helped stakeholders in Ethiopia to maximize the prospects for system-enhancing effects, and minimize possible negative effects of the Global Fund and the scale-up of disease specific programs upon the health system. SWEF also served to stimulate important dialogue in country about health systems issues.

Kenya

PHR*plus* worked with the Ministry of Health to conduct a National Health Accounts (NHA) subanalysis on HIV/AIDS and TB expenditures. Findings from this exercise allowed facility administrators, program managers, donors, and policymakers to review spending patterns and target scarce resources to areas where they are needed most. In 2005, the Ministry conducted public sector Human Resources for Health assessments with PHR*plus* assistance. Findings showed a maldistribution of health workers across the country, unemployed health workers, and increasing demand for staff to meet both PEPFAR and Millennium Development Goal targets. The Government of Kenya is using the findings to develop a 5-10 year human resources plan.

PHR*plus* also collaborated with the National AIDS and Sexually Transmitted Infection Control Programme to implement the Antiretroviral Treatment Information System (ARTIS) in Kenya. ARTIS allows Government of Kenya to track patients receiving HIV/AIDS-related services in different sites across the country. The Kenya ARTIS project began with 16 pilot facilities and has since expanded to 14 additional sites. The project trained 46 data clerks to use computers purchased and installed in their sites. The activity has harmonized the collection and use of patient information for individual patient monitoring, management, and system M&E at the facility and national levels.

Malawi

PHR*plus* provided the Ministry of Health with technical assistance to strengthen hospital operations and management systems in two central hospitals. The project also helped to strengthen the staff skills and systems in key pilot districts for planning, budgeting, and financial management in preparation for

decentralization. On a more limited scale, PHRplus also assisted Malawi to qualify for the World Bank's Highly Indebted Poor Countries (HIPC) Initiative by collaborating to develop the Essential Health Package (EHP) that addresses the major causes of mortality and morbidity. Additional accomplishments included: (1) Referral guidelines developed and implemented with project support that helped to strengthen the continuum of care and improve the quality of care; (2) Central hospital financial systems strengthened and legal framework for hospital autonomy developed; and (3) Improved organization and performance of the Ministry of Health Central Planning Office.

Nigeria

In 2004, PHRplus assisted the Federal MOH complete a comprehensive assessment of twenty-five government ARV program sites. "The Cost of Providing Antiretroviral Treatment In the Public Sector Nigeria" was published and disseminated in March 2004 revealing that ART costs \$913 per patient per year in the public sector compared to \$2000 in the private sector. PHRplus worked with the DELIVER and POLICY Projects to conduct a rapid assessment of the institutional policy environment, the service capacity and commodity logistics system in 50 private sector sites and 14 public sector sites, revealing lack of national protocols, and lack of collaboration between private and public sector service programs. Findings were used to develop Nigeria's Health Sector Strategic Plan for HIV/AIDS 2005-2009. In 2006, PHRplus completed an assessment of human resources based on a nationally representative survey of 314 health facilities at all levels of care. The assessment provided information on the distribution, skills mix, and estimated requirements for reaching national health goals, such as the PEPFAR and MDG targets, and highlighted shortages and rural/urban imbalances in the distribution of health workers. The findings, disseminated in a stakeholder meeting in September 2006, have prompted stakeholder consultations towards the development of a national health workforce strategy.

REDSO

PHRplus strengthened skills and regional leadership for National Health Accounts (NHA), and built capacity for community-based health financing (CBHF). Under NHA PHRplus shared tools and helped countries conduct NHA and apply the results to critical planning decisions. The project created tools for HIV/AIDS and reproductive health subanalyses and helped to implement the sectorwide and HIV/AIDS subanalyses in Kenya, Rwanda, and Zambia using the new NHA *Producers' Guide*. In Rwanda, PHRplus helped to conduct a reproductive health subanalysis for the first time in sub-Saharan Africa. WHO, the Swedish International Development and Cooperation Agency, and country governments contributed to NHA work.

PHRplus helped to develop a regional NHA network by providing technical support for training activities and fostered collaboration on community-based financing with regional partners. PHRplus improved the sustainability of the Community Health Fund (CHF) in Hanang, Tanzania by implementing new financial management procedures; strengthening supervision and marketing; training the District Health Management Team and ward health committees; and educating the community about the benefits of the community-based scheme. The project evaluated the impact of the improvements in Hanang and shared the results with other schemes. In addition, PHRplus created a catalog of community-based health financing (CBHF) schemes that help the regional CBHF Association in Eastern, Central and Southern Africa to develop and maintain information systems, facilitate regional and national networking, and assist the regional association in identifying potential partnerships to mobilize additional resources.

Rwanda

PHR*plus* provided technical assistance for NHA expenditure tracking for total health care, HIV/AIDS, reproductive health, and malaria. The estimations cover the years 2000, 2002, and 2003. The project assisted the Government of Rwanda to (1) generate regular, policy-relevant financial statements of resources flows for health care and specific priority areas and (2) to provide baseline data for HIV/AIDS and malaria spending patterns so that future subanalyses could help monitor the impact of targeted funds disbursed by large donor grants such as the Global Fund, PEPFAR, PMI, and the Multi-country HIV/AIDS Program.

The NHA estimations have been very valuable to the policy process. For example, the 2000 and 2002 NHA findings were used to inform the medium-term expenditure framework, which indicates fiscal targets for public allocations. NHA data served as a basis for estimating anticipated health resources in the public and private sectors and anticipated costs for meeting health sector goals. The comparison of these two sets of costs enabled the Ministry of Health to develop the proposed budget for the sector for submission to the Ministry of Finance. The 2003 findings were used to develop a strategy for achieving the Millennium Development Goals. Specifically, the findings show that there are numerous managers of health funds – the Ministry of Health manages only 17 percent of all health funds, whereas nongovernmental organizations manage 27 percent – which substantiates the need for partner coordination. Indeed, the government’s Millennium Development Goal strategy focuses on establishing better partner coordination and harmonization with the national strategic plan for health care.

The Government of Rwanda continues to peruse NHA initiatives with the goal of institutionalization. For example, it is drafting an official NHA “constitution” that outlines roles and responsibilities of various institutions. The Ministry of Health is incorporating health accounts into the mandate of the multi-partner health sector working group chaired by the ministry. Other donors, such as the GTZ and Belgian Technical Cooperation, have expressed strong interest in supporting the next round of NHA. The Government of Rwanda has itself committed \$90,000 (in labor and direct payment) for the current round, which will include HIV/AIDS and malaria subanalysis estimations for the year 2005 (to assess the impact of the surge of donor funds) and for the first time a district-level estimation. Regionally, because of its accumulated experience in resource tracking, Rwanda is beginning to serve as a center for Eastern and Southern Africa regional workshops on health accounts. On a global level, the work done in Rwanda has helped advance the NHA framework and the experience of Rwanda has been incorporated in many international guidelines relating to subanalysis estimations.

Tanzania

PHR*plus* work in Tanzania focused on strengthening the capacity of the Tanzanian public health system to detect and respond to 13 priority infectious diseases. It subsequently extended to provide technical assistance for avian influenza preparedness and surveillance efforts. The project worked in 12 districts in eight regions to implement the WHO/AFRO Integrated Disease Surveillance and Response (IDSR) strategy by focusing on strengthening surveillance and response capacity at the district and facility level with the aim of reducing the disease burden and protecting the population against infectious diseases. The National Institute of Medical Research (NIMR) led the implementation while PHR*plus*, the U.S. Centers for Disease Control and Prevention, and the CHANGE project provided technical assistance.

The project developed training materials and methods, as well as a variety of job aids, to assist facility- and district-level staff to fulfill their IDSR-specific roles and responsibilities. By collaborating with zonal training centers, the project trained 787 facility health workers, 96 district health management team members, and created a pool of 51 people trained to conduct district-level trainings in other districts.

After training, the project followed up with districts to introduce job aids and to facilitate problem solving to improve IDSR performance. The 12 project districts showed high-quality and timely surveillance information and increased evidence-based decision making at the community, facility, and district levels. In addition, the *PHRplus* project worked with colleagues at the Ministry of Health and NIMR to develop a case investigation form to be used for active avian influenza surveillance in humans should avian influenza be suspected or confirmed in poultry or wild birds. *PHRplus* also supported the second meeting of the National Avian and Human Influenza Task Force that brought together donor partners and the government to make plans for implementing and funding Tanzania's National Avian Influenza Preparedness and Response plan.

Zambia

PHRplus work in Zambia focused on: (1) strengthening prepayment schemes by developing a cost-sharing manual for inclusion in a larger toolkit that assists districts to design and implement prepayment schemes; (2) assessing the impact of waivers based on evidence from household and facility surveys; and (3) completing an NHA HIV subanalysis.

The cost-sharing manual now assists districts with the design and implementation of prepayment schemes. In Kafue, Zambia, the Community Health Welfare Scheme (CHEWS) implemented from 2002 to 2004 sought to increase access to health care services by the most vulnerable population by providing a user fee voucher. *PHRplus* evaluation work in CHEWS showed that there were no differences in health seeking behavior and in health status in CHEWS and non-CHEWS households – leading to the conclusion that the targeting mechanism was not used correctly or was too complex to use. *PHRplus* helped to complete the data set and tables for an NHA HIV/AIDS subanalysis. Findings included: (1) Households finance 25 percent of total HIV/AIDS expenditures, about the same percentage as in Kenya (26 percent) but much higher than in Rwanda (13 percent); (2) donor funding of HIV/AIDS in Zambia was significant at nearly 49 percent of total HIV/AIDS expenditures, again similar to Kenya at 51 percent but much less than Rwanda at 75 percent); (3) a person living with HIV/AIDS in Zambia spends \$49.61 out-of-pocket, which is nearly six times per capita general health out-of-pocket spending of \$8.48.

Uganda

PHRplus addressed a wide range of health system issues in Uganda with a variety of local partners. The Uganda Community Based Health Financing Association (UCBHFA) now actively supports CBHF through radio talks shows and brochures in local languages that publicize and explain schemes to members and their communities, thereby generating interest in and understanding of the schemes and encouraging new members to join. Uganda CBHF schemes now understand income-generating initiatives, such as selling insecticide-treated nets, and can analyze their internal financial data to promote sustainability.

It is now easier to develop public-private partnerships because of a new database created by the Public Private Partnership Desk at the Ministry of Health based on a *PHRplus* survey of private providers. The survey was the first-ever national estimate of the number, skills, and location of human resources for health in private practice. It revealed that private for-profit facilities (2,154, 46 percent of 4,639 total facilities) outnumber both government (1,885) and not-for-profit private facilities (600). The leadership of the two private sector professional associations now have business skills and have developed new strategic plans to implement public-private partnerships.

PHRplus and Ministry of Health counterparts estimated the costs and human resources requirements for scaling up antiretroviral therapy (ART). *PHRplus* facilitated discussion of the findings that contributed to

Uganda's ART policy and successful third-round Global Fund application. An analysis of home-based care (HBC) contributed to the final stage of developing a national HBC policy. PHR*plus* designed and analyzed the feasibility of a health insurance scheme for government workers with HIV/AIDS. The Uganda National Expanded Programme on Immunisations completed its financial sustainability plan (FSP) for the Global Alliance on Vaccines and Immunization with technical assistance from PHR*plus*. The FSP also provided basic cost-effectiveness analysis as evidence for decision making on the national immunization program.

WCA COUNTRIES

Africa Bureau

In January 2003, the NHA Policymakers Sensitization Conference in Dakar, Senegal, brought together 60 policymakers and health planners from 25 countries in West and Central Africa, including Francophone, Anglophone and Lusophone countries. The meeting introduced policymakers to the concept of NHA, the merits of implementing health accounts, and its relevance to their jobs. In addition to garnering support for NHA by policymakers, the meeting also provided the opportunity to involve policymakers in establishing a regional network, to draw up an action plan for the network and identify which agency or group will be the principal coordinator of regional events. PHR*plus* delivered 2 Regional NHA workshops in West Central Africa (WCA) Region for 13 country teams in January 2003 and October 2003 in Senegal, and translated NHA manuals into French. PHR*plus* launched the NHA in Mali, including the malaria subanalysis, in collaboration with the World Bank and EU.

Benin

PHR*plus* work in Benin focused on two major areas for strengthening health systems performance: decentralization and community-based health (CBHF) organizations. In the 1990s, Benin developed plans for decentralizing (deconcentrating) the health system through creation of health zones. As a result of PHR*plus* support, the Ministry of Health organized a national forum on decentralization and the minister formed a broad-based Steering Committee (SC) on Health System Decentralization. Through its subcommittees, the SC harmonized administrative texts on decentralization including clarification of roles, responsibilities, and lines of authority. The SC advocated for and obtained a Ministry of Health budget line item for health zones, and gained additional authority for health zone managers over personnel issues. PHR*plus* helped the ministry create programs for sensitization of various stakeholders on decentralization issues, and worked to develop more effective decentralized planning processes. PHR*plus* also worked in two communes to develop effective local government involvement in the development and sustainability of CBHF schemes. The project helped establish commune-based networks of schemes to facilitate support and learning and supported development of a new Strategic Plan for mutual health organization (i.e., CBHF) scale-up at a national level. Schemes supported by PHR*plus* have enrolled members in 14 arrondissements. USAID's new health sector bilateral project will continue to support to CBHF development and decentralized management of the health sector.

Côte d'Ivoire

The USAID mission contributed PEPFAR funds to complement work under Strategic Objective 4-funded country assessments of human resource requirements for HIV/AIDS. Civil conflict and worsening socio-economic conditions have increased the demand for public health services and exacerbated the shortage of all health worker types in the public sector, but limited public budgets impede recruitment of health workers into the civil service. Attrition rates are high among social workers, general

practitioners, and nurses, and medical school graduation rates have declined. Thus, meeting PEPFAR targets will require substantial human resource mobilization.

Ghana

PHR*plus* supported efforts of USAID/Ghana in two areas: Integrated Disease Surveillance and Response (IDSR) and community-based health financing (CBHF). Through the IDSR work, Ghana's Epidemiology Unit has the capability to analyze and report epidemiological data; four regions have IDSR tools and manuals to help facility-, district-, and regional-level workers to carry out identification, reporting, analysis, and response activities for priority diseases. Districts and regions can also monitor and evaluate IDSR performance. In the area of CBHF, PHR*plus* provided the government with guidance on CBHF policy, and improved the capacity of existing schemes to manage risk and mobilize their communities. PHR*plus* also studied the effects of CBHF on utilization of priority health services. Over the four-year period, the number of schemes increased from 47 to 160. When the new National Health Insurance Law supported district-wide schemes, PHR*plus* helped community-based schemes to integrate into district schemes and transferred lessons learned to new district schemes. The IDSR component of PHR*plus* work is continuing under the USAID/Ghana's health bilateral project.

Mali

USAID/Mali and WARP funds supported design and implementation of pilot community-based health financing (CBHF) schemes in urban and rural settings. The pilot schemes differ from Mali's existing *mutuelles*, which enroll primarily urban members on the basis of professional affiliation. The new schemes, despite economic and climatic constraints, have been able to maintain themselves and grow. These new schemes have been replicated in nearby areas with limited technical support by building on the training and models developed for the four original schemes. Results of an extensive evaluation indicate that CBHF membership is positively associated with use of the priority services of fever treatment, prenatal visits, and use of impregnated bednets.

Nigeria

With PEPFAR funding, PHR*plus* provided support to the development of a National HIV/AIDS Sector Strategic Plan and an implementation plan for the National AIDS/STD Control Program.

Senegal

In Senegal, PHR*plus* activities focused on the development and sustainability of community-based health financing (CBHF) schemes at the local, regional, and national levels. In the early years, PHR*plus* provided direct technical assistance to individual schemes in community mobilization, sustainability, and decentralization, and designed simplified processes for establishing schemes. In more recent years, PHR*plus* helped establish consensus on a strategic plan for CBHF development in Senegal. The project also focused on developing capacity at the regional and national level to provide technical assistance, training, and to share experiences. PHR*plus* provided support to 27 CBHF schemes, each with an average of 2,200 members. The new USAID/Senegal bilateral project will continue MHO support activities.

WARP

WARP funding allowed PHRplus to provide technical assistance and training to mutual health organizations (MHOs) and to governments to maximize the contribution of MHOs to the health sector. WCA regional funding has also been leveraged to develop and disseminate tools and practices for the growing MHO movement, as well as to maintain a PHRplus regional office in Dakar, Senegal. Country programs in Ghana, Mali and Senegal benefited from this regional investment, and PHRplus' regional approach has not only been efficient, but has facilitated the rapid diffusion of lessons and best practices across WCA. These complementary investments have permitted PHRplus to better evaluate, document, and disseminate important findings to inform the rapid growth of the MHO movement in the region and beyond, while field support funds are used to continue to provide technical assistance to new and existing schemes. PHRplus conducted MHO-level trainings on the above areas for more than 25 MHOs in Ghana, Senegal, and Mali, as well as training and support of local technical resources for MHOs such as CPHD (the Community Partners for Health and Development), a local NGO in Ghana and the GRAIM in Senegal. PHRplus facilitated the signing of several formal contracts between the 4 MHOs and various providers in Mali. PHRplus assisted groups wishing to set up an MHO, adding up to more than 30 in Senegal, Mali, and Ghana in 2003 alone. For example: 1) a training workshop for 50 community mobilizers of Ajumako District-wide Health Insurance scheme to introduce the principles, organization, services and issues involved with running an MHO in Ghana; and 2) assisted CEDPA (Center for Development and Population Activities), to train a women's association to set up an MHO that covered reproductive health services.

ASIA/NEAR EAST

ANE Regional Bureau

Aging

PHRplus helped to develop methods that would enable policymakers to estimate health expenditures on the elderly during a base year and then make projections into the future. The estimations allow policymakers to anticipate and plan for the impact of the increased longevity on the demand for primary health care services. PHRplus analyzed the impact of aging populations on health systems with a special emphasis on priority services in Jordan and the Philippines. For the Philippines, PHRplus collaborated with the East-West Center, based in the University of Hawaii, on the analysis. PHRplus produced a working paper that elucidates the methodologies and results for both countries.

Cambodia

PHRplus provided technical assistance to strengthen the use and quality of infectious disease surveillance data at the local level. The bureau selected Cambodia as the implementing country for this work because it had made significant progress on decentralizing and strengthening the health information system. PHRplus assisted the Cambodian Ministry of Health to establish a central TB/HIV Working Group comprising both high-level ministry officials and key donor organizations. The working group and project established four pilots to test interventions that link TB and HIV/AIDS programs. PHRplus helped to create a standardized component to the information system for monitoring, learning, and improvement in order to support the four pilot provinces and scale-up efforts. The project worked with pilot sites to collect, analyze, and use surveillance and other data in order to improve interventions for TB/HIV interaction and improve detection and management of co-morbidity.

Health and wealth

PHRplus produced a two-part document entitled *Investments in health contribute to economic development*. The first part focuses on the general relationship between investment in health and economic growth. The second section specifically highlights the impact of infectious diseases on the economy in the ANE region. The paper has been disseminated through the PHRplus website.

Vietnam HIV/AIDS National Health Accounts

PHRplus assisted with an HIV/AIDS National Health Accounts subanalysis (FY 2004) in Vietnam. The results of the subanalysis enabled the Vietnamese government and Ministry of Health, as well as international donors, to evaluate the effectiveness and efficiency of programs implemented under the National AIDS Strategy. It also provided a detailed, overall-picture of HIV/AIDS spending in the country. Results show that the government, people living with HIV/AIDS (PLWHA) households, and donors contribute 17, 19, and 64 percent, respectively, of total HIV/AIDS expenditures (\$27 million). PLWHA households spend \$64 per capita on AIDS care while other households spend only \$14 per capita on general health care. This illustrates the extraordinary financial burden on PLWHA households.

Urban health study

PHRplus conducted a study examining the health needs and health-seeking behavior of poor slum residents in two cities in Asia – Indore, India and greater Manila, Philippines. The aims of the study were to: (1) gain a greater understanding of the needs for, and supply of, health services in slums; and, (2) document the health-seeking behavior of slum residents and examine their motivations for health seeking. Findings from the DHS analysis of multiple health indicators show that the urban poor are particularly disadvantaged as compared to their non-poor counterparts (poverty is defined using a living standards index). For example, child mortality rates for very poor households are more than double those of the non-poor households – 122 per 1000 children for the very poor compared with 50 per 1000 children for the non-poor in urban India; 47 per 1000 children for the very poor compared with 23 per 1000 children for the non-poor in urban Philippines. Qualitative interviews with slum residents and providers suggest that arrangements for subsidies for urban poor are unsystematic and, depending on circumstance, might or might not succeed in providing the poor with subsidized services and medicines. The dependence of the urban poor on cash is a key issue – in the highly monetized urban health system, the poor lack access to health care because they lack the means to pay for it. Outpatient care is primarily sought in the private sector in Indore and in the public sector in greater Manila.

Literature review of the economic effects of avian influenza

PHRplus produced a paper summarizing the literature on the economic impact of avian influenza globally. The paper reported available data on costs of avian influenza as well as cost projections for a pandemic. The paper also provides a conceptual guide or framework for understanding the impact of three possible outbreak scenarios.

ANE REGION FIELD SUPPORT

Egypt

In Egypt, PHRplus provided assistance to USAID/Egypt and the Egyptian Ministry of Health and Population's Sector for Technical Support and Projects. PHRplus operated within the Mission's Health Policy and Information Program that focused on national-level policy reforms, and governorate/district-

level implementation of demonstration projects and operations research. Specifically *PHRplus* activities included: developing a governorate profile in Suez to set priorities and approaches for reform interventions; implementing service delivery improvement and financing system changes in Suez focused on primary and secondary health care; accreditation and quality improvement standards particularly in the hospital sector; establishment of the National Accreditation Board and development of surveyor guide toolkits; National Health Accounts; and training and capacity building of health reform teams in financial management, budgeting, capital planning, and contracting. The project produced a video documentary on the Suez work to describe the survey, campaign, policymaker involvement, and clinic renovations.

Jordan

Building on the success of its predecessor PHR project, the *PHRplus* project provided the Ministry of Health with technical assistance in the areas of: health insurance reform, hospital decentralization, and the establishment of National Health Accounts (NHA). The Civil Insurance Program (CIP) now has new skills and tools to act as an effective purchasing agent for CIP beneficiaries in order to improve the quality of care, contain costs, and establish clear private sector contractual procedures for the ministry. *PHRplus* worked with Ministry of Health hospitals to improve operating efficiency by training more than 1,500 ministry employees. The project completed detailed costing analyses for two public-sector hospitals, which contributed to development of the Management Accounting System for Hospitals (MASH) that now supports routine tracking of hospital expenditures to improve management. *PHRplus* helped establish a NHA unit within the Ministry of Health that carried out three rounds of the general NHA (1998, 2000, and 2001) and a NHA reproductive health subanalysis. These estimates are widely quoted by Ministry of Health officials.

In 2003, *PHRplus* re-structured its project to focus on hospital accreditation and rational drug use to correspond to USAID/Jordan's new assistance strategy for Jordan for 2004-2009. The aim of the accreditation work was to develop and implement quality tools that would improve safety and quality of health care services delivered at the nation's hospitals. The work on rational drug use updated and implemented the Jordan Rational Drug List and Formulary in order to rationalize public sector purchasing and prescribing practices. The project formed partnerships with private and public sector entities beyond the Ministry of Health, such as the Royal Medical Services, the Jordan Food and Drug Administration, and university hospitals. Hospitals and personnel from all these sectors collaborated in developing and reviewing Jordanian hospital accreditation standards that were endorsed by the Minister of Health. All sectors are involved in the establishment of the Jordan Healthcare Accreditation Commission, the entity that will oversee health care accreditation issues in Jordan. The project worked extensively with the pilot hospitals to assist them in meeting the accreditation standards, and produced such tools as the Guideline for Hospitals to Prepare to Meet Hospital Accreditation Standards. *PHRplus* developed user-friendly information technology including pharmaceutical inventory software that enables hospitals to track and manage pharmaceutical consumption and cost; an interactive CD-ROM with the Jordan National Drug Formulary; and the electronic Obstetric Patients Information System (OPIS) that links freestanding health clinics to hospitals inpatient obstetrics departments. OPIS allows the hospital obstetrics department to access a patient's medical records from her mother-child health clinic to better manage maternal and fetal risk factors.

Morocco

PHRplus activities in Morocco built on USAID's previous investments to strengthen the health sector and the Ministry of Health. In December 2001, the ministry and USAID/Rabat requested that *PHRplus* assist them to develop a national health policy vision for the coming 20 years. Following the November

2002 parliamentary elections, the new Minister decided to cancel development of a national health charter. In 2003, the Ministry of Health participated in the National Health Accounts (NHA) Symposium in San Francisco in June; three members of the Moroccan NHA team also participated in the regional NHA network meeting in Egypt in July. PHRplus provided logistical support for a visit to Washington, DC by the Moroccan Minister of Health Mohamed Cheikh Biadillah and four of his advisors. After the closure of USAID's health sector program in 2004, the Moroccan delegation met with the USAID administrator, key congressmen and staff, World Bank representatives, and several foundation representatives to discuss achievements in strengthening the Moroccan health system and possible future activities outside of USAID funding.

Philippines

This PHRplus activity supported by USAID/Philippines contributed to the health sector objectives of universal coverage and improved access to health care, including family planning (FP) services. The project pilot-tested the use of PhilHealth "guidelines on forging partnerships with organized groups" in Cavite province. PHRplus also conducted a health facility survey on utilization, cost, and financing of health services that examined how insurance affected utilization and performance in rural health facilities and the spill-over effects on hospitals. The results of the survey are found in *The impact of PhilHealth Indigent Insurance on Utilization, Cost, and Finances of Health Facilities in Philippines*.

Yemen

The PHRplus Yemen program focused on strengthening a decentralized health system in support of the Ministry of Public Health and Population's Health Sector Reform Strategy and USAID/Yemen's strategy to increase the use of reproductive, maternal, and child health services. The program was developed through a series of consultative meetings with the Ministry of Public Health and Population (MoPHP), governorate directors of health and other stakeholders at the national, governorate, and district levels in five target governorates. The project worked in collaboration with the USAID service delivery projects, Catalyst and Deliver, and Basic Health and Education. PHRplus completed an inventory of all private and public health facilities, and developed a reliable database and Global Information System (GIS) tools and applications. These tools allow health professionals to visually explore patterns, trends, and outcomes to identify gaps in health services and prioritize resource needs. Each governorate and district received an Atlas with maps of precise geographic locations, photos, and summary information about each health facility. To address the lack of data on facility utilization, PHRplus tested a simple form to collect information and statistics that could be used for planning and targeting resources, determining patient accessibility to local facilities, and staffing issues.

The project also improved data collection and analysis in order to support better management and rational use of vaccines for routine immunizations. The team worked closely with the Expanded Program on Immunization (EPI) to train more than 300 health workers in how to monitor utilization, wastage patterns, and vaccine balances at facilities, and to conduct outreach activities. The EPI program is considering how to roll out this activity nationwide. During the polio outbreak in 2005-2006, the PHRplus team worked with EPI to vaccinate more than 68,000 children in the most difficult area of the country. Many of these households had never before been reached.

The project worked with the MoPHP, WHO/EMRO, and the World Bank to conduct training for the National Health Accounts (NHA) team and then conduct the 2003 NHA. Results demonstrated that health expenditures made up 5.3 percent of GDP with a large portion coming from household expenditures. Reports and data from the bulk of work to improve reliability and access to health information are available on the collaboratively designed MoPHP website (moh.gov.ye).

Capacity-building activities supported governorate and district health teams in the areas of statistics, management skills, data collection, maintenance, analysis, and where appropriate, computer training. Other important activities included: assistance in the establishment of a national Midwives Association which now includes well over 700 members from around the country; a community-based environmental health program that resulted in improved hygiene and reduction in the incidence of diarrheal diseases; assessment of the environmental impact of the Amran Cement Plant that resulted in a \$7 million investment to improve the quality of air and reduce other health hazards; rehabilitation of an ancient cistern that involved the community, and responsibility for hygiene and clean water awareness.

EUROPE AND EURASIA

Romania

The USAID Mission in Romania requested that PHR*plus* help the Government to improve the regulatory environment for the private provision of services in two areas: (1) the private health insurance industry and health maintenance organizations (HMO), and (2) private medical services in general, including public-private partnerships that provide medical services to target groups and promote greater accountability for patients' rights.

As a result of PHR*plus* work, private insurers and health providers observed significant improvements in their working environment. The project helped to strengthen the working group on the Private Health Insurance Law. The core members of this group later formed a new working group, which focused on a newly developed package of 14 health reform laws and a new draft law on private/voluntary health insurance. PHR*plus* provided comments to the working groups and the Ministry of Health on all drafts related to the private/voluntary insurance laws. The project organized a study-tour to Slovakia and Bulgaria for key health insurance players and later procured computers for the working group members in response to USAID's request. By the end of the assignment, the Ministry of Health, the National Health Insurance House, the Romanian Chamber of Deputies, and the Insurance Supervisory Commission had established close working relationships.

E&E NHA Regional Network

The purpose of the PHR*plus* work was to introduce National Health Accounts (NHA) to the region to expand use of health financing information to improve health system performance. Seven to eleven countries participated in three regional workshops, with an average of 32 participants. The workshops were conducted in collaboration with the WHO/Geneva, WHO/EURO, the World Bank, Asian Development Bank, the Swedish International Development and Cooperation Agency, and the U.K. Department for International Development. By June 2006, national NHA teams had been formed in all participating countries except Moldova. Georgia, Russia, and Ukraine institutionalized their NHA processes by decree.

Armenia, Georgia, Kazakhstan, Kyrgyzstan, and Ukraine have adapted the NHA classifications to their country context. Georgia and Ukraine have produced reports on findings from the first round of the NHA and from reproductive health subanalysis. Ukraine also has findings from the HIV/AIDS subanalyses. Armenia, Kazakhstan, and Kyrgyzstan are in the process of data collection for the first round of general NHA. Moldova is planning initiation of NHA for 2007 and the country representative has expressed interest in institutionalizing NHA.

The *NHA Training of Trainers Manual* and *Producer's Guide* were translated into Russian and widely disseminated at the workshops and via the Commonwealth of Independent States NHA website together with other reference materials. For each workshop, the project updated and produced a CD to compile all necessary materials. At the third workshop, participants and donors discussed the need for an official regional network. The purpose of the network would be to provide technical assistance through experts in the region, sponsor regional workshops, create a webpage to serve as a virtual forum for technical discussions, and offer additional information and resources. The group circulated a draft concept paper among international donors to gain interest and support for the network. USAID is taking the lead on this endeavor.

Albania

Albania's integrated strategy to improve primary health care and inform health policy focused on the four areas: of service delivery; quality improvement; health information systems (HIS); and finance, planning, and budgeting. Albania was the only country assisted by PHRplus that conducted a rigorous impact evaluation.

Service Delivery: PHRplus helped pilot facilities design and implement a new medical records system, upgrade provider knowledge and skills in family medicine topics, develop clinical practice guidelines (CPG) and quick reference sheets, and introduce continuous quality improvement. PHRplus supported Albanian clinicians to write 21 clinical practice guidelines and distributed one-page summaries of guidelines to physicians in the pilot facilities. Through local institutions, the project provided family medicine training for more than 70 physicians and 40 nurses. Community outreach efforts focused on reproductive health issues, disease screening, improving diagnosis and monitoring of common chronic diseases. The outreach targeted specific population groups (women of reproductive age, adolescents, and chronic disease patients). Modern contraceptive prevalence almost doubled in pilot areas, going from 4.5 percent to 7.6 percent.

Quality Improvement. PHRplus worked with facility staff and local authorities to ensure application of new skills and the CPGs. To assess and sustain compliance with the new guidelines, the project introduced chart audit tools.

Health Information System. The facility-based HIS uses simple patient encounter forms to capture data on utilization, diagnoses, and treatment. The HIS informs providers about their practice patterns and the Ministry of Health about facility performance. All levels of stakeholders were engaged in the task of defining information that provided the evidence required to manage and improve primary health care in the pilot areas. Between July 2002 and May 2004, the system collected and analyzed data on more than 90,000 encounters in the four pilot facilities. The HIS has being rolled out nationally.

Finance, Planning, and Budgeting. At the central level, PHRplus helped to build consensus among government stakeholders on financing reforms that included pooling government health care resources into a single fund administered by the Health Insurance Institute. However, the pilot of single source financing was delayed because of political issues. The Government made system-level reforms to: shift the role of the Ministry of Health from service provider to stewardship; defined a package of primary health care services; and establish independent regional health authorities at the prefecture level. The regional health authorities have the responsibility for purchasing primary health care services and monitoring the quality of care.

LATIN AMERICA AND THE CARIBBEAN

El Salvador

In El Salvador, PHRplus sought to increase access to and demand for quality priority health services in rural areas. To accomplish this objective, PHRplus provided technical assistance in seven of 28 SIBASIs (Integrated Basic Health Care Networks) and worked with the Ministry of Health and Social Assistance at the central level to increase the efficiency of its administrative and financial systems.

PHRplus helped strengthen the SIBASI system by developing guidelines that define the stewardship role of the central Ministry of Health and the role of the SIBASIs as providers. It also helped to design the contracts between the SIBASIs and the central Ministry of Health. The project helped to optimize key

procedures and identify and develop new processes that were necessary for effective administration of SIBASIs. PHR*plus* developed a monitoring and evaluation system for the key functions of the SIBASIs, and created software to automate purchasing and contracting for the central level and the SIBASIs. In addition, the project developed planning and program tools for budgeting and financial control for use at the central level, in all 28 SIBASIs, and the referral hospitals.

Guatemala

PHR*plus* provided technical assistance to support increased government investments in health to meet the Millennium Development Goals (MDGs). The project conducted analyses and prepared five policy briefs showing that the Ministry of Health budget would not permit it to achieve the country's stated service delivery goals. By presenting the analysis to members of the international community, academics, Ministry of Finance, Representatives from Congress and staff from the President's General Planning Office helped to advocate for more resources for the Ministry of Health. As a result of PHR*plus* work, the health budget significantly increased in 2006 and a large increase was proposed for 2007.

Honduras

PHR*plus* supported health reforms in Honduras. It worked to improve Honduran government officials' capacity to develop and implement strategies for health sector reform. The project strengthened planning at the national and local levels and fostered active participation by municipalities and associations of municipalities. It strengthened the Ministry of Health's stewardship role by focusing on improved regulation/quality assurance and improved the Financial Management Information System and resource allocation through financial analyses including NHA. PHR*plus* worked closely on these activities with other cooperating agencies as well as with projects financed by the Inter-American Development Bank (PRIESS) and the World Bank (PROREFORMA), and the Swedish International Development and Cooperation Agency (Acceso).

LAC Initiative

The objective of the LAC Initiative was to provide regional support to national health sector reform processes in Latin America and the Caribbean that increase equitable access to basic health services. Through the initiative, PHR*plus* contributed to the reform processes by implementing regional activities that supported informed decision making on health policy and management, health financing, health service improvement, and institutional development. As a result of PHR*plus* work, regional partners increased their knowledge and use of National Health Accounts for tracking expenditures on HIV/AIDS. Initiative participants gained information on the impact of contracting out on priority health services and knowledge about monitoring and evaluation systems for contracting institutions and contractors. PHR*plus* provided critical information on the costs of implementing a comprehensive antiretroviral treatment program.

Peru

The major emphasis of PHR*plus* in Peru has been to make governmental policy and programs more responsive to local needs through technical assistance on health sector decentralization and reform and promoting strategic alliances among key actors of the state and civil society.

The major activities and accompanying results achieved by PHR*plus*/Peru were the following:

- Health sector decentralization: PHR*plus* helped regional and provincial governments understand and effectively carry out their increased responsibilities and functions. PHR*plus*, in collaboration with key stakeholders, developed a Health Decentralization Map that clarified roles and responsibilities at each level of government. PHR*plus* also developed APTO Salud, a software application that helped each level of government to identify and plan for the transfer of previously centralized responsibilities and adapt decentralization to local institutional and social conditions.
- Participatory health planning: PHR*plus* provided technical assistance to develop and support regional and provincial health councils that serve as consultative bodies for regional and provincial governments regarding health policies and programs. It developed a Health Needs Assessment methodology that combined regional epidemiological data, results from a demand/supply study of health services, information on perceived health needs, and regional health finance data based on Regional Health Accounts. The project then supported creation of Regional and Provincial Participatory Health Plans with strong civil society participation.
- Capacity building in health management: Together with the Catalyst Consortium and the Policy Project, PHR*plus* designed and implemented a health managers' training program called PROGRESA. The program used local universities and trained 400 health managers at three different system levels in six regions.
- Integration of the health services network: PHR*plus* provided technical assistance for the design and implementation of an Integrated Network of Health Services that included a hospital system and primary care facilities in the city of Trujillo.
- Targeting health and other subsidies: In order to increase resource availability for the most needy and reduce leakage of health subsidies to the middle class, PHR*plus* developed a Standardized Instrument for the Identification of Beneficiaries of Social Programs based on household/individual socio-economic data. This methodology was officially incorporated into the Peruvian national targeting strategy for social programs, and was implemented with PHR*plus* assistance in the 30 principal cities of Peru.
- Operational guidelines for financing for emergency services: PHR*plus* developed the Operational Guidelines for the Mandatory Insurance of Traffic Accidents (SOAT) in public facilities and the SOAT Tariff Schedule, both officially approved by the Ministry of Health. PHR*plus* also provided training for health personnel in public hospitals on the use of these guidelines to standardize the provision and billing of emergency care.

Hospital management information system: Acknowledging the importance to hospital management of timely and accurate information, PHR*plus* developed GalenHos, an information system with modules on clinical records and appointment management, outpatient and inpatient services, bed management, and billing. The project also provided assistance and training for the implementation of the system.

SECTION 4. LESSONS LEARNED

PHR*plus* demonstrated that a health system strengthening project is an appropriate vehicle to assist countries to move up the development ladder and to serve as a critical resource for USAID, other donor organizations, and global initiatives. It showed how health system strengthening contributes to the increased use of USAID Strategic Objective priority services and achieves policy change. The project also produced many lessons about what works in system strengthening interventions, policy making, and technical assistance approaches. This section discusses those lessons.

Health system strengthening benefits more-focused service delivery programs. Investments in health system strengthening are an essential complement to donor investments in specific disease and service delivery interventions. PHR*plus* conducted a variety of systems interventions – National Health Accounts (NHA), community-based health financing (CBHF), organization and financing of primary care service delivery, infectious disease surveillance, and others – that increased funding for access to and use of priority services. Project experiences and evidence include:

- Contraceptive prevalence grew when a systems approach was used in Albania. USAID/Albania had made significant investment in reproductive health/family planning using a vertical approach (family planning clinics) but Demographic and Health Survey results showed little increase in the contraceptive prevalence rate. PHR*plus*' comprehensive systems approach, which integrated financial, organizational, health information system, quality, and community outreach components in two districts achieved a 68 percent increase in the contraceptive prevalence (from 4.5 percent to 7.6 percent) in three years compared to no change in control districts.
- Rwanda increased malaria funding after seeing NHA results. When Rwanda's NHA subanalysis of 2003 expenditures on malaria, the most significant cause of morbidity and mortality in that country, found that funding for that disease was decreasing as other global priorities received more attention, the minister of health acted to increase malaria funding.
- Kenya increased health spending dramatically after seeing NHA results. In response to Kenya's NHA estimates for 2001/02 (released March 2005), which showed that 51 percent of health care expenditure is out-of-pocket spending by households (56 percent of the population lives below the poverty line), the government increased the Ministry of Health 2005/06 budget by 30 percent.
- CBHF schemes lower barriers to use of priority services. PHR*plus*' multi-country evaluation of CBHF schemes showed that scheme beneficiaries utilize many priority services more than non-beneficiaries, all other things equal.
- Georgia re-examined its public health system when barriers to immunization success were identified. PHR*plus*' efforts to strengthen

Georgia's immunization management system achieved significant increases in immunization coverage (DPT-3) and reductions in vaccine wastage, but also revealed weaknesses in the underlying public health system that limited the effort's potential for further success. As a result, the government is developing reforms to the public health law to improve organization and management of public health services by defining core public health functions, and clarifying roles and responsibilities.

- Global Health initiatives began to recognize system constraints. The SWEF (Systemwide Effects of the [Global] Fund) Research Network called attention to system issues that global health initiatives such as the Global Fund, Global Alliance for Vaccines and Immunization (GAVI), and PEPFAR need to address: to understand the costs and cost-effectiveness of alternative service delivery models, to have an adequate, well-trained cadre of health workers to implement initiative work without limiting other health services, and to have well-functioning procurement systems for drugs and other commodities, among others. In response to SWEF and other dynamics, the Global Fund, GAVI, and PEPFAR all now are open to or actively soliciting proposals to address health system strengthening.

Health system strengthening has an impact on policy. Health system strengthening interventions and research produce evidence that convinces decision makers that health system reform is needed, helps them understand alternative policy options, and allows them to monitor the implementation of their policy choices. (Annex B summarizes some illustrative examples of PHR*plus* impact on policy.)

Technical assistance can show the way to policy change, but countries must take the lead. Technical assistance can contribute to policy change, but change must reflect national priorities; it cannot be mandated solely based on technical analysis. Support from a wide spectrum of in-country stakeholders is needed to put donor-recommended reform on a country's agenda, and to have national decision makers "buy into" the financial support and technical assistance of donors and then institutionalize change. This may require advocacy to stakeholders by "champions" for change, addressing legal and administrative barriers to change, and, in some cases, implementation of pilots to demonstrate the benefits of change. Government agreement to share the costs of a reform effort can improve chances for success and sustainability, as a country will not contribute to reforms that are donor preferences but not its own priorities.

- Encountering system barriers spurred a political response in Georgia. As noted above, successes in building an immunization management information system and improving the disease surveillance system, first in a pilot site and then rolled out nationwide, convinced lawmakers to begin work on restructuring the public health system.
- Rwanda began to make financial contributions to NHA. The Government of Rwanda, where three rounds of NHA estimates (including subanalyses on HIV/AIDS, reproductive health, and malaria) have been completed, has committed \$90,000 (in labor and direct payments) to a fourth round, which will include HIV/AIDS and malaria estimations for 2005.

Similarly, governments may mandate policy change but need citizen support for that change to succeed.

- Centrally-designed community financing schemes in Tanzania had disappointing uptake. Tanzania legislation mandated district-based CBHF schemes. While these schemes have been established, membership and, hence, impacts fall short of expectations, even with substantial

subsidies.

- Regions in Peru opened priority setting to direct citizen input. Peru mandated broad decentralization to the regional level, but this did not, by itself, engage local population input into decisions. To explicitly involve the population in setting local direction for the health sector, four regions, with help from PHR*plus*, conducted citizen referendums to prioritize health issues that the health authorities then translated into regional health plans.

Technical assistance may be needed to turn new policies into reality by assisting with implementation.

- Decentralization on paper often has been insufficient to achieve expected results. Albania, Benin, and Peru, took formal legal steps to decentralize their health systems, but needed significant assistance to implement decentralization and realize expected benefits.
- Including the private sector and consumer choice allowed implementation of Egypt's reforms. National roll-out of Egypt's health sector reform program stalled and faced new challenges in governorates with a robust private sector. PHR*plus* assisted with the piloting of an approach to implementing the reform in the governorate of Suez that included private sector providers from the beginning, gave consumers more choice over their provider, and financing and outreach targeted to the poorest households.

Evidence can influence policy and counterbalance political considerations. Facts can influence policy, particularly when data are of high quality and locally generated to ensure ownership of findings. Evidence developed by external parties, without local participation and buy-in, and global rankings are less effective.

- Greater ownership of NHA led to increased health funding in Kenya. Donors led the initial round of Kenya's NHA. Because the Kenyan government did not feel ownership of the process, results were questioned and a report on findings went unpublished. Nevertheless, many findings were used in government policy discussions. This led Kenya to carry out a household survey on health care expenditures and a second round of NHA with PHR*plus* assistance, but country ownership. Not only was the report on this second round published and released in an elaborate ceremony led by the minister of health in March 2005, but, based largely on the NHA findings, the government increased the 2005/06 Ministry of Health budget by 30 percent.
- Political considerations initially trumped technical input on Ghana's health insurance act. As the government of Ghana contemplated a proposed law that would nationalize independently developed CBHF schemes, PHR*plus* provided technical input and supported broad public debate on the proposal from existing CBHF schemes, employers, and unions. However, these stakeholders and the local technocrats were not government insiders. As a result, political considerations outweighed much of the technical input. The National Insurance Act passed in 2003 greatly centralized scheme management, regulation, and subsidies, and resulted in a design of questionable financial sustainability. As PHR*plus* ended, there was renewed interest in technical input to address design flaws and in evaluation of the impact of the Act.

Change happens during "windows of opportunity". Policy change does not always follow immediately the presentation of evidence, but sometimes achieves impact only in a longer time frame – when the political situation is ready.

- With a change in leadership, Egypt now uses NHA results. Similar to Kenya, the Egypt government did not sanction first-round NHA results (1994/95), disputing findings such as the level of household expenditures. However, the new minister of health, named in 2006, is more open to cooperation with the private health sector. He supports the NHA methodology, and as a consequence, the 2001/02 estimates are now being used in decision making.

- Egypt is taking forward accreditation methods developed by PHR*plus*. Also in Egypt, following the close of PHR*plus* activities in December 2005, the Ministry of Health and Population began to roll out accreditation systems for in- and outpatient facilities developed in five hospitals and one governorate with assistance from PHR*plus* in 2004–2005.
- Foundations built under PHR were the platform for bigger achievements during PHR*plus* in Rwanda. In Rwanda, capacity built in NHA and community-based health financing during the predecessor Partnerships for Health Reform project bore fruit during PHR*plus*, as NHA's policy influence expanded and CBHF grew nationally to cover 3 million members.
- Technical issues, once brushed aside, now are important again for Ghana's National Health Insurance. As described above, Ghana passed the National Insurance Act in 2003 that ignored much of the technical and stakeholder input developed or facilitated by PHR*plus*. As implementation issues arose (e.g. service utilization surpassing supply of staff and drugs, skyrocketing cost of subsidies), there has been renewed interest in technical input and in the USAID-funded evaluation the impact of the National Insurance Law.

Accountability and good governance is essential to the health sector. Part of evidence-based decision making is adopting accountability and governance measures that offer citizen input into health care policy.

- Peruvian regional authorities now are subject to ballot-box accountability. In Peru, PHR*plus* assisted regions to hold citizen referendums that voted on local health care priorities that governments were bound to follow or face the consequences at the next election.
- CBHF schemes are built on citizen participation and accountability. Most CBHF schemes are initiated by communities (though they might enlist the assistance of outside “promoters”), and members play a role in scheme management, through General Assemblies that contribute to design and adjustment of benefit packages, premium levels, and other scheme design elements.
- Albania's health system became more transparent. PHR*plus* helped gain credibility for Albania's health system by conducting a study that documented the extent of informal payments to health care providers and worked to make the financing system more transparent through improvements in the health information system.
- Access to information made stakeholders more effective. All stakeholders, including legislatures, ministries, facility managers, civil society groups, and individual citizens were able participate better in decision making and in holding implementers accountable when they had access to information and evidence from the multitude of PHR*plus* assisted clinical, immunization, and other management information systems and facility, household, and patient satisfaction surveys (e.g. see Albania, Egypt, El Salvador, Georgia, Jordan, Kenya, and Yemen).

Sustaining health system improvements requires sustained input and support.

- NHA merits continued support as a valuable tool for countries *and* for the global assistance community. The role of PHR*plus* (and other donors) in NHA has evolved from country- and regional-level introductory training and technical assistance, to the development of training

tools that in-country experts can use to train others. However, only few countries have yet institutionalized the methodology (committed sufficient manpower and funding in the government budget to carry out NHA analyses on a regular basis), and donor assistance will continue to be needed to develop and implement the new subanalyses focused on priority services (HIV/AIDS, malaria, reproductive health, and child health). Country decision makers, USAID missions, and the global development community all recognize NHA's value in improving national management of health financing, increasing health financing overall, and improving allocations of health funding. However, it is unlikely that developing countries will on their own adequately fund NHA data collection and analyses. Therefore, USAID should consider helping to fund NHA estimates on an ongoing basis, as it does the similar Demographic and Health Surveys that benefit both the countries where they are conducted as well as USAID and the global community.

Other elements of health system strengthening cut across the lessons described above.

Health information systems must have utility for those who collect information. A modern, comprehensive health information system (HIS) can be an important part of health system strengthening, to have data that improve individual patient care, assist facility and program managers, and monitor the performance of the health system as a whole. The best HISs serve the needs of the health service providers and other front-line health workers who collect and report the information.

- The facility-based HIS in Albania captured data on all patient encounters. Summary data across multiple facilities allowed providers to identify problems and take action. For example, one facility found it had higher rates of hypertension and initiated a blood pressure screening program in the community. Another facility prescribed antibiotics much more frequently than the others and instituted a clinical practice guideline and a patient education campaign that successfully rationalized antibiotic use.
- HIS training in Ghana bore immediate fruit. PHR*plus*' assistance to Ghana to adapt and train workers in WHO/AFRO's Integrated Disease Surveillance and Response methodology, an important component of which is feedback to local levels, improved the quality of data provided – and, more immediately, those trained helped to control a meningitis outbreak.
- The FACT tool gives feedback to Egyptian providers on their practice patterns. To improve quality of care in Egypt, PHR*plus* helped to design the Feedback Analytical and Comparison Tool (“FACT”), which collects utilization and monitoring data on patient visits and provides feedback on practice patterns to the clinicians providing care and their supervisors and managers.
- The SIBASI integrated health systems HIS in El Salvador helped cement the integration of primary and hospital care. PHR*plus* helped to implement the HIS to give primary care, hospital, and system managers common monitoring and evaluation information within the framework of the SIBASI.

Well-defined research contributes to strengthening of health systems and service delivery. Despite much learning by PHR*plus* and other system strengthening initiatives, there is a need for more evidence on which reforms work or do not work and under what circumstances. The original design of PHR*plus* called for it to conduct significant research on health sector reforms but funding for this was

severely limited from early in the project. More research linked to field implementation, as was done by *PHRplus*, is needed to inform implementation and to identify which reform options should be tried and/or scaled up.

- The comprehensive evaluation in Albania documented the success of a comprehensive approach. *PHRplus* performed an impact evaluation as part of primary health care reform in Albania; it found that the comprehensive system approach led to service quality improvement and increased contraceptive prevalence.
- The three-country evaluation of CBHF provided evidence to answer key questions. *PHRplus* took advantage of its fieldwork on CBHF to conduct baseline, impact, and operational evaluations in Ghana, Mali, and Senegal, developing a wealth of new evidence about this promising, but under-documented movement, showing that CBHF helps to address some barriers to care and protects incomes, and identifying design and management weaknesses that could threaten sustainability.

Collaboration is effective in leveraging resources and achieving objectives. USAID's collaboration with other international donor organizations and initiatives, U.S. agencies, and other USAID programs must continue, for no single donor has the skills or funding to do all the work. For political and other reasons, few recipient countries are willing to accept prescriptions for reform made only by a single donor. Countries often want to chart their own course and not be seen to be overly dependent on a single external source of help. Thus, USAID must continue to collaborate and leverage other resources. While collaboration has short-term costs in time and money, it can result in greater influence with in-country stakeholders and impact on policy.

Capacity building is needed to give countries needed skills. Capacity building is essential, but should be pursued in a way that ensures that institutions in the assisted countries retain knowledge and skills. USAID should work toward institutionalizing, e.g., creating programs or schools of public health, to continually build in-country capacity so that countries can assume responsibility for projects now carried out by external experts, can better collaborate when donor assistance is needed, and can help donors identify problems and advocate for solutions with in-country policymakers and other stakeholders.

- A focus on individual capacity building has risks to sustainability. While *PHRplus* did training and technical assistance that built extensive individual capacity to do NHA estimates, the impact of the in-country knowledge base is reduced when individuals move to other jobs in-country, or take higher-paying jobs as consultants elsewhere, including with international organizations.
- More local resources for training and support would help CBHF schemes. *PHRplus* research on sustainability of CBHF schemes showed that scheme decision makers (including community members who take an active role in scheme management) need management and financial skills, to understand the repercussions of their decisions on scheme coverage and financing. However, there are few local sources of this kind of training and support.

Countries must be the catalyst for formation of regional organizations. Similar to the point that change must reflect national priorities, creation of regional networks to further development aims must reflect the needs of countries in a region. Donors sometimes

initiate networks before enough individual countries have adopted, strengthened, and institutionalized reforms internally. Once countries recognize a need for a regional framework and are willing to contribute to it, donors can offer assistance.

- The regional organization formed by CBHF schemes is a success. *La Concertation*, a federation of CBHF schemes in 11 West and Central African countries, serves as a coordination, information-sharing, and support resource for schemes. It receives support from PHR*plus*, ILO/STEP, and other donors, but coalesced because schemes recognized their need for such an organization.
- NHA networks continue to struggle, while more progress is made at the country level. Some regional NHA networks have existed for as long as a decade, and they have shared some experience, but most progress in NHA has happened on the country level, with direct support from donors.

PHR*plus*' design and implementation met important demands and needs aligned with USAID objectives. As a large project with broad technical expertise, PHR*plus* was a resource that USAID/Washington and missions could turn to for immediate response to needs that arose in the field, to meet information requests from throughout the agency and from Congress, to help represent the agency at international and other professional meetings and to generate important new knowledge about the impact of system strengthening efforts and how such effort work best. Despite its “fragmented” tasks and funding streams, the project achieved a large body of accomplishments in policy change and implementation that well-served USAID's priority services objectives.

ANNEX A. PHRPLUS NHA TECHNICAL ASSISTANCE

BREAKDOWN OF PHRPLUS NHA TA BY COUNTRY AND TYPE

Name of Country	General NHA	HIV/AIDS Subanalysis	Malaria Subanalysis	Reproductive Health Subanalysis	Child Health Subanalysis
ANE Region					
Egypt	X				
Jordan	X			X	
Yemen	X				
Vietnam		X			
E&E Region					
Ukraine	X	X		X	
Africa					
Ethiopia	X			X	X
Kenya	X	X			
Rwanda	X	X	X	X	
Malawi	X	X		X	X
Mali	X		X		
Zambia	X	X			
LAC Region					
Peru	X (at reg. level only)				
Total	12	6	2	5	2

ANNEX B. THE POLICY IMPACT OF HEALTH SYSTEM STRENGTHENING

THE POLICY IMPACT OF HEALTH SYSTEM STRENGTHENING: SELECTED EXAMPLES

Focus	Country	Policy Impact
Health care financing	Kenya and Rwanda	<p><i>Increases in health spending.</i></p> <p>Among the findings from NHA in Kenya was evidence that 51% of all expenditure in health care is out-of-pocket spending by households. As a result the MOH received 30% increase in its allocation from Treasury in fiscal year 2005/2006.</p> <p>Among the NHA findings in Rwanda was that 50% of the health sector is financed by donors, 40% by private sources, only 10% funded by the government. The MOH used these findings to argue successfully for a doubling of the health budget.</p>
Health care financing, HIV/AIDS	Uganda	<p><i>ART Policy.</i> Uganda adopted a national policy on anti-retroviral therapy (ART) in 2004, that was the most comprehensive ART policy in Africa, (completed with the assistance of PHRplus). The policy was a pre-condition for Uganda's successful application to the GFATM for support for scaling up ART.</p>
Community-based health care financing, Scale-up	Ghana	<p><i>National Health Insurance Act.</i> The Ghana Parliament passed a National Health Insurance Act (HIA) to improve access and quality of basic health care services through the establishment of mandatory health financing schemes at the district level. PHRplus laid the groundwork for the HIA through its support to the development of community-based schemes. PHRplus also facilitated participation by community scheme representatives in the hearings and debate over the HIA, providing them a voice in policy decisions. After the passage of the HIA, PHRplus assisted the Ghana Health Service to conduct baseline household surveys as a part of the monitoring and evaluation of HIA's impact.</p>
Community-based health care financing, Scale-up	Senegal	<p><i>Strategic framework for community-based health financing.</i> With the growth of the community-based health financing movement in Senegal, the Ministry of Health with assistance from PHRplus developed a national strategic framework to work with the movement. The framework focuses the Ministry on facilitation of the movement and information gathering and lesson sharing.</p>
Health financing, HIV/AIDS ARV	Uganda	<p><i>Financial sustainability of ART.</i> PHRplus conducted a comprehensive analysis of resource requirements for scaling up anti-retroviral therapy (ART) activities in Uganda with AIDSTreatCost (ATC), worked with policymakers to begin to formulate approaches to long-term financing needs for sustaining scaled up ART provision.</p>

Focus	Country	Policy Impact
Quality of care	Egypt	<i>Facility accreditation.</i> PHRplus helped the Ministry of Health, hospitals, and medical schools to develop accreditation standards and survey methods for hospitals and primary care facilities in Egypt. As a result, the Government of Egypt established a national health facility accreditation unit independent of the Ministry of Health.
Infectious disease surveillance	Georgia	<i>New public health law.</i> The Ministry of Health in Georgia, with PHRplus assistance, developed and applied tools to strengthen vaccine preventable diseases surveillance and response. In so doing, weaknesses in the underlying public health system were revealed. As a result, the Government is drafting a new public health law to improve organization and management of public health services by defining core public health functions, making clear the roles and responsibilities of all stakeholders, again with PHRplus assistance.
Infectious disease surveillance	DR Congo	<i>Malaria treatment policy change.</i> PHRplus worked with the Ministry of Health of DR Congo, the World Bank, and the Roll Back Malaria Partnership to estimate financial need to switch to Artemisinin-based combination therapy. The estimate was a key input into the decision by the World Bank to include a \$30 million malaria component into a health loan.
Primary health care service delivery	Egypt	<i>Market analysis study spurs multiple actions.</i> PHRplus assisted with the conduct of a market analysis to identify strengths and weaknesses of the Suez governorate health sector. The findings from the analysis resulted in the Ministry of Health and Population (MOHP): revising exemption policies for poor and vulnerable to expand access; conducting IEC campaigns; expanding coverage to secondary care; developing contracting mechanisms to include NGO and private facilities; permitting free choice of MOHP facility for families.
Financing, TB	Global	<i>Sustainable financing for the fight against multi-drug resistant TB.</i> The TB Green Light Committee (GLC) obtained a preliminary commitment from the GFATM, to grant an exception to its policy and provide basic support to the GLC for its work to ensure the quality of programs to address multi-drug resistant TB. This allows more countries to obtain discounted drugs and strengthen the battle against multi-drug resistance.
Decentralization, Accountability	Peru	<i>Information for priority setting.</i> Regional Health Analysis (a version of National Health Accounts) provided key information for the Participatory Health Planning process and for the definition of financing and resource allocation policies and strategies in 4 regions.
Health financing, Pharmaceuticals	Jordan	<i>NHA results lead to rational drug use strategy.</i> The results from a series of NHAs, contributed to the Ministry of Health citing pharmaceutical reform and rationalization of drug purchasing and dispensation as a policy priority. With PHRplus assistance the Ministry is leading the development and implementation of a rational drug use strategy.

ANNEX C: PHRPLUS END-OF-PROJECT (EOP) INDICATORS AND TARGETS

Thematic Area	Indicators	Targets	Status	Sources of Verification for Targets
1. Community Based Health Insurance	Utilization rates of priority services	Rate of priority services utilization higher among PHR <i>plus</i> partner scheme members than among non-members in 3 countries	TARGET ACHIEVED IN 3 OF 3 COUNTRIES	Household surveys in Mali, Ghana, and Senegal
2. National Health Accounts	Institutionalization of NHA: At national level - evidence that NHA studies have been conducted and planned at recurrent periodic intervals in order to generate trend data. At regional level – the holding of NHA workshops.	Institutionalization at national level in nine countries where either PHR or PHR <i>plus</i> has provided technical assistance in this area Regional institutionalization: at least two regional workshops conducted in the ECSCA, WCA, CIS, and LAC regions (total of 8 workshops)	TARGET ACHIEVED IN 8 OF 9 COUNTRIES TARGET SURPASSED	Interviews with country level policymakers, <i>and</i> past and present NHA team members and advisors. These interviews are incorporated and captured in a central location organized by region (in the Policy Use and Institutionalization database) Reports on workshops and documentation on PHR <i>plus</i> website
	Policy Penetration: Evidence of use of NHA data in the health policy process	Policy penetration achieved in at least ten countries where either PHR or PHR <i>plus</i> has provided technical assistance in this area	TARGET ACHIEVED	Interviews with country level policymakers, <i>and</i> past and present NHA team members and advisors. These interviews are incorporated and captured in a central location organized by region (in the Policy Use and Institutionalization database).
	Subanalysis: Evidence that subanalysis has been conducted in countries that have received PHR <i>plus</i> NHA assistance	Completion of at least 6 subanalyses in countries where PHR or PHR <i>plus</i> has provided technical assistance in this area	TARGET SURPASSED	Reports summarizing subanalyses.
3. Global Alliances	Number of countries that have used cost or cost effectiveness analysis by	EPI financial sustainability plans developed or implemented with PHR <i>plus</i>	TARGET ACHIEVED	Country Financial Sustainability Plan documents

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Thematic Area	Indicators	Targets	Status	Sources of Verification for Targets
	PHR <i>plus</i> to develop financial plans for EPI vaccines. (Funding for this activity cut in FY '04).	technical assistance completed in 6 countries		
	Global Fund: Demonstration of changes in policy, strategy, or operational practices as a result of PHR <i>plus</i> Global Fund activities	Global Fund: At least two significant changes in policy, strategy, or operational practices for use of Global Fund monies occur, at either the national or global (Global Fund Secretariat) level, as a result of research findings from PHR <i>plus</i> participation in the Systemwide Effects of the Fund (SWEF) Network	TARGET NOT ACHIEVED	PHR <i>plus</i> research findings and trip reports, interviews with country level policy makers and stakeholders, interviews/discussions with global level stakeholders (including GF staff), review of minutes from meetings (such as country level CCM meetings, GF meetings, etc.) and other reports/documents (such as GF Board reports, country performance reports to GF)
4. Decentralization	Number of PHR <i>plus</i> countries that have clarified the new national and local level roles and functions of MOH personnel in a decentralized context	Clarification of new national and local level roles in 3 countries where PHR <i>plus</i> is providing technical assistance in this area	TARGET ACHIEVED	Review of MOH job descriptions, organizational charts, ministerial decrees granting authority for decentralized personnel management
	Number of PHR <i>plus</i> countries that have strengthened capacity to assume new decentralized roles in one	Strengthened capacity to assume new decentralized roles in 6 countries where PHR <i>plus</i> is providing technical assistance in this area	TARGET ACHIEVED	PHR <i>plus</i> Project documents and trip reports. Minutes from community board meetings, budgets, health plans, ministerial decrees granting authority for community managed resources, training plans and training test scores

ANNEX C: PHRPLUS END-OF-PROJECT (EOP) INDICATORS AND TARGETS

Thematic Area	Indicators	Targets	Status	Sources of Verification for Targets
	<p>or more districts supported by PHR<i>plus</i>.</p> <p>Country specific indicators include:</p> <ul style="list-style-type: none"> ○ community board or council established and functioning in one pilot district ○ budgets executed at the decentralized level ○ health plans developed at the local level ○ financial resources managed at the local level ○ Decentralized information systems adopted 			
5. Infectious Disease Surveillance and Response	Percentage of operational units with evidence of IDSR data use (through planning and response) among the districts or rayons where PHR <i>plus</i> is working on IDSR	<p>Separate targets for each of the following countries:</p> <p>Georgia: 8 rayons in one region. Ghana: 24 districts in 3 regions. Tanzania: 12 districts in 8 regions.</p>	TARGET SURPASSED IN GEORGIA AND TANZANIA. TARGET ACHIEVED IN GHANA	Interviews with district health management teams, review of district reports and work plans. In Tanzania and Georgia, operations research study results

ANNEX C: PHRPLUS END-OF-PROJECT (EOP) INDICATORS AND TARGETS

Thematic Area	Indicators	Targets	Status	Sources of Verification for Targets
	Percentage of operational units demonstrating increased timeliness of surveillance data submission, increased completeness of surveillance data forms (Georgia and Ghana only), and increased coverage of surveillance data administration among the districts or rayons where PHRplus is working on IDSR	Separate targets for each of the following countries: Georgia: 8 rayons in one region. Ghana: 24 districts in 3 regions. Tanzania: 12 districts in 8 regions.	TARGET SURPASSED IN GEORGIA. ACHIEVED IN GHANA AND TANZANIA	Weekly and monthly surveillance reports submitted to districts by facilities. In Georgia and Tanzania, operations research study results
	Evidence base increased about what is needed to strengthen IDSR	2 operations research studies completed answering key questions about critical IDSR activities	TARGET ACHIEVED	Completed OR studies
	Evidence of Ministries of Health or international bodies (WHO, etc.) using materials or approaches developed by PHRplus to strengthen IDSR	Ministries of Health in at least PHRplus countries will have taken what PHRplus has developed and use it in other districts and regions WHO will support use of training materials, job aids and other references that PHRplus has developed	TARGET ACHIEVED TARGET ACHIEVED	Interviews and discussions with national surveillance unit or equivalent counterpart. Attendance at follow-up activities and district quarterly meetings. Interviews and discussions with WHO/AFRO and WHO/EURO

ANNEX C: PHRPLUS END-OF-PROJECT (EOP) INDICATORS AND TARGETS

Thematic Area	Indicators	Targets	Status	Sources of Verification for Targets
6. HIV/AIDS	Number of countries that have used PHR <i>plus</i> technical assistance (including costing tools, resource allocation tools, etc.) to improve policies and/or resource allocation decisions for HIV/AIDS programs	Target for policy improvement achieved in 4 countries	TARGET ACHIEVED	National and/or donor HIV/AIDS related policy documents that credit information from PHR <i>plus</i> costing and resource allocation tools