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Preface

The purpose of this document is to share information, experiences, ideas, resources, and challenges with U.S. Government (USG) country teams to help them better apply this principle in their programming across global health accounts and to expand the knowledge base for how this principle can advance a country's health goals. The paper describes the opportunities for and challenges to health system strengthening (HSS) from a distinctively USG perspective. The paper is intended as a thought-provoking, "living document" that will be revised periodically based on emerging research and insights gleaned from HSS experience in USG-supported countries around the world. It is not formal guidance, a policy directive, a strategy, a toolkit, a user's manual, or a blueprint.

Information Sources

The paper draws upon six sources of information about HSS: (1) structured interviews with USAID field staff on a range of strategic issues related to strengthening local country health systems (as part of a 2011 internal agency management review of HSS); (2) a virtual writing project, in which a small group of USG field staff representing different agencies first identified a limited set of questions of particular relevance to USG HSS field programming and operations, which were then addressed by a larger group of USG field staff with HSS experience in countries across multiple regions; (3) a cursory review of all major documents relevant to HSS produced during the last five years that were either authored or co-authored by the USG, or to which the USG had made substantive contributions; (4) a cursory review of twenty-seven GHI country strategies; (5) the peer-reviewed literature on HSS and key WHO, World Bank, and global health partnership publications; and (6) comments and contributions from USG reviewers[1] of earlier versions of this paper.

Introduction

The USG has made significant contributions to improving health outcomes around the world. For decades, the USG, in collaboration with other donors and countries, has supported low- and middle-income countries' delivery of life-saving interventions, such as immunization, oral rehydration therapy, birth spacing, skilled attendance at birth, and the prevention and

[1] USG staff from the following agencies, offices, and task forces reviewed earlier versions of this draft: Health and Human Services (HHS)/Centers for Disease Control and Prevention (CDC), United States Agency for International Development (USAID), the Office of the Global AIDS Coordinator (OGAC), and the Inter-Agency Task Force on Women, Girls and Gender Equity (WGGE TF).

treatment of a variety of infectious diseases, including HIV/AIDS, tuberculosis (TB), and malaria. Nevertheless, many countries, particularly those in Africa, are not on track to reach the Millennium Development Goals (MDGs)—a mere three years down the road—despite considerable growth in financing (Institute for Health Metrics and Evaluation, 2011) and technical support for the health sector from global development partners and governments during the last two decades.

A 2010 report from UNICEF indicates that only nineteen of sixty-eight priority countries worldwide (28%) are on track to achieve MDG 4 (child mortality reduction) by 2015; forty-nine (72%) have either made insufficient or no progress (UNICEF, 2010). Almost all maternal deaths (99%) occur in developing countries; yet, progress toward MDG 5 (maternal mortality reduction) is less than half of the 5.5% annual decline needed to achieve the target (WHO, 2011). Significant progress has been made toward MDG 6 (combat HIV/AIDS, malaria, and other diseases); however, important work remains and the overall target will likely not be met. For example, UNAIDS estimates that of the 14.2 million people eligible for ARV therapy only 6.6 million (< 50%) had been covered by the end of 2010 (UNAIDS, 2011).

Weak health systems are often identified as a binding constraint to further and sustained progress. In 2009 at the launch of the U.S. Global Health Initiative (GHI), President Obama said, *"We will not be successful in our efforts to end deaths from AIDS, malaria, and tuberculosis unless we do more to improve health systems around the world."* Consequently, GHI has incorporated HSS as one of the seven core GHI principles. GHI provides an opportunity for the USG to further contribute to HSS around the world, demonstrate its ability to use existing resources for HSS more efficiently and effectively, and inform Congress and the American public about the value of investing in HSS as part of the USG's overall global health efforts.

The task will not be easy on the scale that is required. Global economies are constrained. In the U.S., there is increasing political scrutiny of and debate about US foreign assistance, and uncertainty about future funding levels. Resources for global health are no longer increasing, and further budget cuts in foreign assistance may exacerbate this situation. The USG must continue to think and act creatively to deliver on high level policy directives. Now more than ever, every U.S. dollar invested in HSS must be done so wisely, in a way that adds value and that demonstrates progress toward achieving priority health outcomes.

Overview

The paper begins with a rationale for USG efforts to assist countries in strengthening their health systems. It continues with a definition of HSS and a brief description of the flexible and multi-dimensional approach the USG is pursuing to strengthen health systems around the world. The section concludes with a summary of the benefits and challenges associated with this approach.

The next section describes how the USG applies an HSS lens in many countries to ensure achievement of GHI health goals and the GHI Principle on HSS. The paper describes discrete HSS activities that are optimizing resource use across global health accounts, experiences with joint programming and co-financing in a variety of countries, and selected efforts to improve collaboration across USG agencies. The section concludes with some of the challenges of supporting health systems in the current USG funding environment.

The paper continues with an exploration of how the USG works with others to promote HSS and some of the challenges involved in ensuring maximum coverage of a country's health system needs in a multi-actor environment. The paper concludes with a brief discussion of how progress in HSS can be measured and how the evidence base for HSS can be enhanced.

Rationale

HSS is a means to an end, not an end in itself. Ultimately, for the USG, HSS is about helping countries save lives. HSS also can contribute to the achievement of broader foreign assistance goals. Furthermore, proven, cost-effective interventions and technologies for combating disease are more likely to be effectively delivered and sustained in the presence of high-performing health systems. Through HSS, the USG seeks to maximize and sustain its long-standing and continuing investments in the health sector, thereby adding value to its own investments and those of other actors, including country governments, other donors, and the private sector.

The USG investment in HSS not only reflects a commitment to good stewardship of precious resources invested in the health sector, but also as a way to protect and enhance human capital. A healthy citizenry is a prerequisite for a country's engagement in the global economy. Efficient, effective health systems—"all organizations, people, and actions whose primary intent is to promote, restore or maintain health" (WHO, 2001; WHO, 2007)—protect human capital. When strong health systems reduce the burden of disease, disability, and early death, they can

improve life expectancy and labor productivity, and increase employment[2] and educational opportunities, particularly for women.

Equity-enhancing health system activities can accelerate development and enable economic growth by facilitating protection against financial impoverishment due to illness and enabling access to health care by the poor. Efficiency-maximizing health system activities that produce outputs or outcomes at a lower unit cost and in a timely fashion in constrained resource environments can reduce transaction costs within the health system, which frees up resources for more and better health services, and potentially other sectors of the economy. In the absence of strong health systems, the MDGs are unlikely to be met (WHO, 2007), the return on the USG investment in health will be sub-optimal, and US foreign assistance goals will not be easy to achieve and sustain.

HSS Definition/Approach

HSS is any array of initiatives, strategies, or activities that improves one or more of the core functions of the health system—labeled "Building Blocks" by the World Health Organization (WHO, 2007)—and that contributes to better health, protects citizens from catastrophic financial loss and impoverishment due to illness, and ensures consumer satisfaction, all in an equitable, efficient, and sustainable manner[3]. HSS is not a new concept; it traces its roots to the health sector reform movement of the 1990s (World Bank, 1993). HSS became a prominent issue on the global health agenda in 2001 with WHO's publication of its *World Health Report 2000—Health Systems: Improving Performance* (WHO, 2001). During the last decade, numerous global conferences, resolutions, publications, and strategies have contributed to HSS assuming a central place in discussions about the challenges to achieving significant progress toward meeting global health goals.

The afore-mentioned definition of HSS provides a general compass for guiding HSS action at country level. In practice, however, a health system is a complex and dynamic phenomenon and HSS varies considerably from one country to another. History and the broader political economy influence social choices that drive health system organization, priorities, and performance. USG-supported countries operate in different political, social, economic, cultural,

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[2]The public and private health sectors constitute a significant part of national economies in many low and middle income countries, providing employment to many in the formal health sector and to many in the allied health service industries.

[3] Adapted from Islam M et al. (2007) as stated in the WHO Health Systems Strengthening Glossary. http://www.who.int/healthsystems/hss_glossary

demographic, and epidemiological contexts—from fragile states with weak economies to those with sound democratic governance and broad-based economic growth. Obstacles and opportunities vary from one country to another; consequently, each country decides locally how best to organize and strengthen its health system[4]. A broad group of stakeholders—policy makers, health care providers, and civil society—interact to various degrees in different ways in different countries to ensure optimal system performance.

Recognizing this complexity, dynamism, and the resultant need for flexibility, the USG has pursued a multi-dimensional approach to HSS. The USG strengthens the discrete, core functions of health systems and manages the relationships among these functions within the health sector. The USG also links health systems with non-health sector actors and systems to enhance health system performance and increase the likelihood of sustainability. Each of these dimensions is described briefly below.

►Functional approach: strengthening discrete, core functions of health systems

Although the USG has not formally adopted one HSS template to guide all USG actions[5], the WHO "Building Blocks"—governance, financing, service delivery, health workforce, information, and medical products—have served as an important organizing and investment framework for all USG field teams (Annex 1). The significance USG country teams assign to strengthening these core health system functions is reflected in many of the GHI country strategies.

Between October 2010 and January 2012, forty-one countries submitted their GHI strategies for review by interagency panels. As of May 2012, twenty-seven were approved[6]. All approved strategies have targeted at least three of the six functions for attention or investment, while more than half of the strategies (18/27) have targeted all six functions. All the strategies targeted the health workforce function. Service delivery and governance were each targeted by most (26/27), while slightly fewer targeted information (25/27) and medical products (24/27). Financing was the least targeted, yet still was addressed by more than half of the strategies (20/27).

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[4] For example, the core focus of HSS in conflict/post-conflict settings is often establishing a national health policy framework, building a basic cadre of human resources, developing monitoring and oversight capabilities, and ensuring that processes and procedures to deliver essential drugs and commodities are present. In more developed countries, where many of these functions are in place and performing satisfactorily, emphasis may shift to a focus on improved governance to ensure the sustainability and continued responsiveness of high quality services.

[5] Shakarishvili and colleagues have identified eleven different health systems frameworks that are in use by the global health community (Shakarishvili et al., 2010).

[6] Approved strategies are posted on www.ghi.gov.

Agencies across the USG direct substantial financial and technical resources each year to support country teams' efforts in helping countries strengthen the core functions of their health systems. For example, through more than two dozen centrally funded projects, mission buy-in to these projects, and mission bilateral projects, USAID supports each of the six Building Blocks (USAID, 2009a). Since the inception of the President's Emergency Plan for AIDS Relief (PEPFAR), the primary USG PEPFAR implementing departments and agencies have been supporting improved HIV/AIDS-related service delivery activities in prevention, care, and treatment; financing; human resource strengthening; and information systems, among other Building Blocks[7].

For many years, the Department of Defense (DoD), the Food and Drug Administration (FDA), the National Institutes of Health (HHS/NIH), the Health Resources and Services Administration (HRSA), Peace Corps, and other arms of the USG have been targeting their assistance to specific functional areas of health systems. For example, the Department of Health and Human Services (HHS)/CDC works with Ministries of Health and other public health institutions in low- and middle-income countries in strengthening their core public health functions (Bloland et al., 2012). These functions comprise surveillance and other health information systems, research, public health workforce development, laboratory systems and infrastructure, public health leadership and governance, and response to public health emergencies. Countries throughout the world call upon HHS/CDC to help them build their capacity in these functional areas so they can implement evidence-based public health programs and translate applied research into action.

►Relational approach: managing the relationships among functions

Since WHO's introduction of the Building Blocks in 2007, the global health community has increasingly acknowledged that the constituent functional parts of the health system are interconnected and interact to produce a range of effects, both intended and unintended. This concept of a health system as a complex, dynamic whole has gained traction among scientists and practitioners in both industrialized (Trochim et al., 2006) and non-industrialized countries (de Savigny and Adam, 2009; Roberts et al., 2008). In industrialized countries, scientists are increasingly using formal models and simulations to increase understanding of complex systems, stimulate systems thinking, and improve actions within them (Trochim et al., 2006).

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[7] The primary USG PEPFAR implementing departments and agencies are the Department of State (DoS), the U.S. Agency for International Development (USAID), the Department of Defense (DoD), the Department of Commerce (DoC), the Department of Labor (DoL), the Department of Health and Human Services (HHS), and Peace Corps.

For developing countries, since the mid-1990s, the World Bank Institute and the Harvard School of Public Health have been offering a Flagship Course on Health Sector Reform and Sustainable Financing, which uses a "Control Knobs" framework. The Control Knobs are discrete areas of health system structure and function—financing, payment, organization, regulation, and behavior—which can be adjusted by various country actions to improve health system performance (efficiency, quality and access) and ultimately achieve long-term outcomes (health status, customer satisfaction, and risk protection)(Roberts et al., 2008).[8] According to World Bank training records, more than two dozen USG staff have attended either the Washington-based course, or a regional version.

As the USG continues to assist countries in the fundamental work of strengthening the core functions of their health systems, recognition of the integrated circuitry of health systems and of HSS as an interactive, relational process is increasingly reflected in USG-supported programming as a way to optimize limited resources to maximize health impact. Two examples of activities that engage all the core functions or all the administrative units of a health system simultaneously are results-based financing and "smart" decentralization.

Results-based financing

In more than two dozen countries, the USG is supporting demand- and supply-side variants of results-based financing schemes, which serve as an entry point for strengthening the connections and interactions among all the core functions of a country health system. For example, performance-based financing (PBF), a particular kind of supply-side scheme, provides financial incentives to health facilities and health workers conditional on the achievement and independent verification of desired performance. PBF, however, is not simply a pay-for-performance scheme; rather, it is a strategic change intervention that links multiple HSS functions, activities, and processes to reforming the way the health system functions as a whole, rather than just adding and financing inputs (Meessen et al., 2011; Naimoli, 2010).

PBF has been featured in a WHO publication as a robust, practical example of how to apply "systems thinking" in the health sector (de Savigny and Adam, 2009). Although PBF schemes appear promising, the evidence base is thin (albeit growing), they are not a panacea for "fixing" health systems (de Savigny et al., 2008), and there are many potential pitfalls at the design,

[8] The developers of this relational framework draw an analogy between decision makers in a health system and the pilots of a large aircraft, who adjust different controls to achieve the desired altitude, speed, and fuel economy to reach a destination safely and quickly. They determine how the system operates and what the system produces, through a process of continuous monitoring and adjustment.

implementation, and evaluation stages that require close monitoring and modification, as needed (Eichler et al., 2009; Montagu and Yamey, 2011; Basinga et al., 2011).

Smart decentralization

The USG is supporting "smart" decentralization in the health sector in many countries through a cross-functional approach of improving stewardship at the central level, increasing management capacity in the periphery, strengthening health resource management and services at the facility, and empowering citizens, NGOs, and those in the private sector to have greater voice in the management of the health care system (Boxes 1, 2).

Box 1. Smart decentralization in Honduras

The USG's maternal and child health program in Honduras is closely linked with the Feed the Future (FtF) Initiative. FtF works to improve child survival and nutrition through community-based growth promotion, including infant and young child feeding, promotion of exclusive breastfeeding, prevention and treatment of preventable childhood disease, and improvements in pre-natal care. Nutrition services are directly supported through FtF; however, the long-term sustainability of nutrition services depends on the Ministry of Health's reform and decentralization efforts, which are supported with USG maternal and child health funds. Strengthening the health system and ensuring integration of essential nutrition services in a decentralized environment is critical to ensuring the government's ability to carry forth the efforts supported through FtF.

Source: Honduras USG country team

Box 2. Smart decentralization in Nepal

In Nepal, the USG supports several efforts—through the government, in individual projects, and in collaboration with other donors—to build local capacity for decision making and management. In anticipation of further decentralization under a new constitution, the USG has been working with Health Facility Management and Operations Committees at sub-health posts, health posts, and primary health care centers to improve and empower communities in managing health services for local people. The committees are usually chaired by locally elected leaders (Village Development Committee Secretaries), and comprise female community health volunteers, health post in-charges, teachers, and appointed representatives of marginalized communities. They recommend how the health facility should function, including its hours of operation, types of service, and the contracting of additional health personnel. Community scorecards also are being piloted to measure satisfaction with local health services, with the results being channeled to the District Public Health Office as well as to the central level Ministry of Health and Population.

Source: Nepal USG country team

A participatory, effective, decentralized health system that serves its citizenry can contribute to producing sustainable health outcomes, foster greater confidence in government and the

private sector, and generate social and human capital to address other democratic challenges. Although decentralization needs to be implemented carefully, it can be an effective way to bring personal and public health services, resources, and elected public officials closer to the client and to strengthen citizen voice (World Bank, 2004).

► Cross-sectoral approach: linking a health system with non-health sector actors and systems

Health is influenced by factors and determinants outside of the health sector and not all health system “fixes” (deSavigny et al., 2008) reside within the health sector. For example, women and girls’ equitable access to education and economic opportunities may reduce excess mortality among these populations. To address these kinds of issues, strengthen health system performance, and ensure sustainable results, decision makers and donors often need to reach beyond the Ministry of Health.

For example, to ensure adequate recruitment of health workers (i.e., to certify health care worker salaries are competitive), to explore decentralization and devolution possibilities for health care, to strengthen health information systems, and to increase domestic resource allocation to health, the USG has engaged Public Service Commissions, Ministries of Local Government, Statistics Bureaus, and Ministries of Finance, respectively. Moreover, PEPFAR Partnership Framework negotiations engage many of these government actors as key stakeholders.

USG-supported country health strategies that seek improvements in public policy making, public expenditure management, democratic governance, and leadership can contribute to creating sustainable health systems. Albania (Box 3), Guinea (Box 4), Kenya, Senegal, and Georgia, among other countries, hope to sustain high impact health programs and service delivery through improved public governance, which the USG supports through explicit results frameworks and shared sectoral investments.

Challenges of a multi-dimensional approach to HSS

Although HSS is implemented differently in different settings, certain principles apply: strong health systems are transparent, accountable, and responsive to citizen needs and preferences. The USG’s flexible, multi-dimensional approach to HSS is responsive to local priorities and circumstances. Each of these dimensions, however, presents challenges—both perceived benefits and risks (Annex 2). The policy and management task for country health teams is to maximize these benefits and minimize the risks.

Box 3. Improving democratic governance and health in Albania

During the last decade, Albania's health program focused on addressing health system constraints. The premature loss of all health funds two years into a five-year HSS project meant that USAID had to think creatively about how to continue the HSS work. Because Albania's project focused on health system constraints, which were governance–related, the case was made to fund the HSS project with democratic governance (DG) funds. The intermediate results for the Country Development and Cooperation Strategies were DG-focused, but were expanded to include health. They focus on an improved enabling environment for policy reform and planning, improved planning and implementation capacities, more participatory and transparent reform processes, enhanced citizen oversight, strengthened civic engagement to help fight corruption, upgraded professional and management skills, and more efficient operations and resource management.

Source: Albania USG country team

Box 4. Improving democratic governance and health in Guinea

The USG in Guinea has taken the bold step of designing a country development strategy that has a single Strategic Objective: "Advance Democratic Governance." The hypothesis is that the performance of the government represents the main impediment to advances in economic growth, agricultural production, natural resource management, biodiversity conservation, health (maternal and child, family planning, HIV/AIDS, polio eradication), and education. Before the USG can have an impact on improved service delivery or improved livelihoods, it must first address the governance constraints that have impeded development in these areas. By strengthening civil society knowledge, behavior and participation, and by increasing Government of Guinea capacity, accountability, transparency, and efficiency, the USG expects to have a greater, longer- lasting effect on its targeted sectors. The USG will continue to report on earmarks, directives, and global issues as required, and consolidate the geographic location of activities in different sectors so that they complement one another.

Source: Guinea USG country team

Achieving GHI Health Goals and the GHI Principle on HSS

External support to countries for building strong health systems and developing HSS capacity varies from one development partner to another. In the USG, all funding for HSS is channeled through categorical disease control and health promotion programming. Consequently, a challenge for all country teams is how best to achieve GHI health goals—through the application of life-saving, cost-effective interventions and technologies—and the GHI Principle on HSS. By applying a health systems lens to their programming, many USG country teams maintain a results focus while extracting maximum value for health systems. The USG does this in three ways: (1) by supporting discrete activities; (2) through joint programming and co-funding that optimize resource use across global health accounts; and (3) through improved collaboration across USG agencies.

► **Discrete activities**

Integration of essential health services

USG country teams, in collaboration with host country Ministries of Health, are successfully supporting integration of a wide range of essential services at the most peripheral levels of health care, where a few health workers deliver a range of public health and clinical services from the same delivery point. The USG supports the integration of family planning, maternal/neonatal/child health, and HIV services, which are integrated to different degrees and with different effects in numerous countries (Brickley et al., 2011; Kennedy et al., 2011). The USG also supports the integration of TB and HIV services, HIV and malaria services, as well as immunization programs with other primary care services, such as Vitamin A, bednets, and anti-helminths (Wallace et al., 2009). Increasingly, neglected tropical diseases are being integrated into AIDS, TB, and malaria control efforts (Hoetz et al., 2011). For a comprehensive discussion of this topic, including suggestions about how to determine if integration is an appropriate approach in a particular health system, and for examples of integration not limited to service delivery, see the *GHI Principle Paper on Integration in the Health Sector*.

Regulatory activities

In many countries, the USG supports accreditation of service delivery or product outlets, certification and licensing of providers, and other activities that improve oversight, regulation, and accountability of the public and private health sectors, including for- and non-profit organizations. For example, in Tanzania, a multi-actor collaborative effort links accredited drug dispensing outlets (ADDOs) to a national health insurance scheme that provides broad health coverage to the members of the insurance fund (Box 5)[9]. As part of their GHI country strategies, the USG teams in Ethiopia and Vietnam will be working to improve government stewardship and oversight of the private sector by supporting the licensing of private providers, and by developing regulations for adherence to quality standards in service delivery.

Although Peru's national socioeconomic indicators have improved significantly over the last several decades, many citizens, particularly those in rural areas, still do not have access to quality health services. Although the government has transferred many authorities and significant resources to regional and local governments, it has not fully decentralized decision-

[9] The ADDO design and pilot was funded by the Bill and Melinda Gates Foundation, with contributions from the private sector drug shop owners. Program scale-up was funded through contributions by the Government of Tanzania, local private sector participants, the Gates Foundation, the Rockefeller Foundation, DANIDA, and the Global Fund. The USG contributed approximately 16% of the total funding through support for human resource capacity building activities funded by PEPFAR, PMI, and child survival programs.

making authority over the use of those resources, leaving the process of decentralization incomplete. As a result, the USG is providing technical assistance in improving regulatory capacity to improve coverage, quality, and efficiency, and to reduce inequities in the health sector (Box 6).

Box 5. Tanzania: linking accreditation to health insurance

Launched in 1999, the Tanzanian National Health Insurance Fund (NHIF) provides health coverage to Tanzania's formal sector employees, approximately 15% of the population. The NHIF has successfully offered subsidized care to its members through a broad network of publicly managed health facilities, but it has struggled to provide adequate pharmaceuticals and services. Indeed, in rural Tanzania—where 60% of NHIF members reside—there are only two registered pharmacists per one million inhabitants. To address this problem, the Tanzanian government has supported a pilot program to train and license a group of community-level drug dispensers, whose shops are known as accredited drug dispensing outlets (ADDOs). While expanding access to quality pharmaceuticals and services in the pilot regions, ADDO dispensers also can—because of their government credentialing—offer drugs at reduced prices to local NHIF members, costs which the NHIF later reimburses. By integrating ADDOs into the national health insurance infrastructure, the Tanzanian government has demonstrated how investments to improve the accessibility and quality of products and services offered by private sector providers can support the public sector's push to improve population health. Most promisingly, the expanded resource the ADDOs represent—in terms of both the newly trained dispensers and the expanded pharmaceutical and service coverage offered by their dispensaries—is more likely to prove sustainable because of its linkages with NHIF financing. The synergy between these two high-impact approaches enhances the sustainability and effectiveness of both.

Source: Rutta E et al, 2009

Box 6. Improving regulation capacity in Peru in a decentralized environment

The Ministry of Health, with USG assistance, is redefining its regulatory role and reorganizing its resources to more effectively regulate the system. Regional governments are working with USG partners to draft health plans aimed at improving the health systems necessary to manage and lead the sector. At the local level, the Healthy Communities and Municipalities Project (HCM) provided training and technical assistance to the Regional Health Directorates on improved methodologies and tools that can be adopted at health facilities. The HCM model emphasizes behavior change and community participation to improve healthy lifestyles and helps local health authorities develop public investment health projects.

Source: Peru USG country team

Performance-based financing

An added value of performance-based financing is that these schemes purchase a package of essential health services and use both supply- and demand-side incentives to achieve a series of health results by leveraging funds from multiple disease and health promotion programs. The most notable example of the power of PBF to leverage USG funds from multiple global health

accounts (HIV/AIDS, malaria, and other health accounts) is in Rwanda[10]. Project results indicate that PBF had a large and significant positive impact on institutional deliveries, preventive care visits for young children, and the quality of prenatal care delivered. The same effects, however, were not seen on the number of prenatal care visits or immunization rates, possibly because of low payment rates for preventive services and less provider control over health care seeking behavior (Basinga et al., 2011). As a result, the government is testing incentive schemes for community health workers (supply side) and women (demand side) to increase service utilization. Lessons learned in Rwanda are informing similar USG-supported efforts throughout Africa and in other regions.

Organizational and individual behavior change strategies to strengthen the health workforce

Many country teams are supporting innovative human resource and organizational development strategies that affect multiple disease and health promotion programs. Some of these activities include basic and continuing medical and nursing education reform; on-the-job training and mentoring; in-service training reform; task-shifting from more-specialized to less-specialized cadres of health workers; integrated supervision; field epidemiology and sustainable management training; and quality assurance, process improvement, and standards-based management approaches that can enhance the organization and delivery of a range of health services. In addition, the USG supports the development of human resource management and information systems (HRIS) in over fourteen countries to help them plan, monitor, and manage their scarce human resources to improve health service delivery under GHI (Box 7).

Box 7. The power of human resource information in changing policies in Kenya

In Kenya, HHS/CDC, through PEPFAR, worked with Emory University to establish the first Human Resource Information System (HRIS) in sub-Saharan Africa. The system collects registration and deployment data on health care workers on a quarterly basis from more than 6,000 health facilities nationwide. The data produced have been used to impact policy and program decisions by the Ministry of Health. For example, the data were used to successfully extend the retirement age across the civil service, including nurses, by 5 years; “clean” the payroll; rectify promotional backlogs for nurses; increase registration and licensing of doctors, nurses, and laboratorians; and to change policy to allow health facility construction funds to be used to hire over 1,000 new staff needed to fill those facilities, above and beyond the established ceiling.

Source: CDC (2010)

[10] Personal communication, Management Sciences for Health

Enhanced and integrated management approaches

Most USG-supported priority disease control programs face common challenges of appropriate selection, procurement, distribution, and use of medical products and commodities, albeit in different legal and regulatory environments. An increasing number of USG-supported countries, such as Liberia, Kenya, and Tanzania view these challenges as an opportunity to combine resources from different programs to help countries build a single, comprehensive, high-performing procurement and management system. Such a system can help countries improve their forecasting and planning for disease-specific essential medicines and commodities.

Integrated surveillance, reporting, and laboratory networks

For many years, the USG has devoted substantial resources to improving countries' integrated disease surveillance and reporting systems. The USG has supported the strengthening of reporting systems for pediatric and adult antiretroviral treatment patient and drug resistance monitoring; HIV, Sexually Transmitted Infections, TB, malaria, and Prevention of Mother to Child Transmission/Maternal-Child Health surveillance; electronic medical systems; and laboratory-, pharmacy-, and community-based reporting systems. The USG also invests in establishing integrated laboratory networks for disease control and health promotion. The USG has supported the development of more than 1,900 full and integrated, non-disease-specific clinical laboratories and through PEPFAR in fiscal year 2009 more than 36,000 HIV testing sites (e.g., stand-alone community sites and PMTCT facility-based sites) throughout the world.

These public health laboratory networks build the efficiency and augment the ability of countries to respond effectively to HIV and other diseases, including emerging health issues, such as H1N1. Further, the USG supports improving the quality of laboratories (to meet WHO standards) through a novel accreditation program and a regional training center and reference lab—the African Centre for Integrated Laboratory Training, in Johannesburg, South Africa—as well as the development of innovative public health laboratory approaches such as HIV testing of infants, and TB and HIV drug resistance testing and training (CDC, 2011).

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Other activities with the potential to leverage resources across global health accounts to strengthen health systems and disease-targeted programs by applying an HSS lens are listed in Annex 3. Many examples of these activities can be found in the twenty-seven approved GHI country strategies.

► Joint programming/co-funding to optimize resources across global health accounts

Maximum health and health system impact can be achieved when country health teams leverage resources across discrete disease and health programs. USG country field teams are well-placed to guide joint programming and co-funding investments: they can ensure the proper fit between local priorities and appropriate approaches that have a high potential for health impact, a proven track record, are feasible to implement, and are likely to be successful because of a strong enabling environment. Optimizing resource use across programs requires careful reflection, thoughtful strategic planning, and continuous adjustment.

Countries in the Europe and Eurasia (E&E) and Latin America and Caribbean (LAC) regions have worked creatively and holistically to develop projects that strengthen health systems while targeting priority health outcomes. Georgia (Box 8), Armenia (Box 9), and Azerbaijan each have integrated specific streams of family planning, maternal/child health, other public health threats, and, in some cases, TB, funding into one health systems activity. Each country has adopted a "diagonal approach" (Frenk, 2006; Uplekar and Raviglione, 2007)[11]. The Dominican Republic (Box 10), Peru, El Salvador, Nicaragua, and Honduras have undertaken similar efforts.

Box 8. Georgia

In Georgia, the USAID Health System Strengthening Project (HSSP) is (1) strengthening health insurance capacity to provide quality health insurance services; (2) strengthening health service providers' capacity to manage and deliver quality health care services; and (3) strengthening the capacity of the Ministry of Labor, Health and Social Affairs (MoLHSA) to guide and monitor health reforms. The project is assisting the MoLHSA in creating a national health management information system and has already piloted a hospital self-accreditation system and assisted Georgian professional medical associations to create an ethical code of conduct for physicians.

The project also has trained media on how to report accurately on health reform and insurance, designed and delivered various professional training courses for insurance professionals, and supported the establishment of the insurance professional training center. In addition, it has supported establishment of the Health Insurance Mediation Service and assisted it in conducting a nationwide information campaign to educate beneficiaries of state-funded health insurance programs. All of these interventions are tailored to the Georgian health reform reality, which is heavily focused on privatization and voluntary insurance. These HSS interventions are not disease-specific; they address the whole system to improve quality and access to services to ensure sustainability of the health reform effort undertaken by the Government of Georgia.

Source: Georgia USG country team

[11] The underlying logic of the "Diagonal Approach" is as follows: (1) take the desired health outcomes as the starting point for identifying health system constraints that prevent effective scaling up of services; (2) address health system bottlenecks in such a way that specific health outcomes are met while system-wide effects are achieved and other programs also benefit; (3) address primarily health system policy and capacity issues; (4) encourage the development of national health sector strategies and plans; and (5) adopt robust monitoring and evaluation frameworks.

Box 9. Armenia

The Healthcare System Strengthening in Armenia Project used a diagonal approach that improves vertical service delivery for maternal/child health, reproductive health, family planning, tuberculosis and non-communicable disease (MCH/RH/FP/TB/NCD) services while also strengthening the horizontal health system and removing health systems barriers to improving services and institutionalizing improvements. Interventions focus on reducing health system barriers to improving the quality of and access to maternal and child care, obstetric services, family planning, and treatment and prevention of tuberculosis. The diagonal approach supports USAID and the government of Armenia to improve MCH/RH/FP/TB/NCD services for the population and to address major constraints in health financing, leadership and governance, human resources, and information systems that impede the sustainable delivery of high-quality health services. The project focuses on four components: 1) establishing a transparent and accountable health financing and governance system; 2) institutionalizing a system of continuous improvement of the quality of provided services; 3) building the capacity of the National TB Program; and 4) enabling civil society to exercise their health rights and responsibilities. Although the ultimate goal of the project is to improve disease-specific health outcomes, the project addresses this goal by building the capacity of the whole health system.

Source: Armenia USG country team

Box 10. Dominican Republic

The TB and HIV programs in the Dominican Republic continue to be hindered by their vertical nature: financing, commodities, human resources, health services, and reporting often work in isolation from the wider health system. The USG is working with the Dominicans to maximize the performance of the health sector through a diagonal approach, which combines health system strengthening and disease-specific programming. For example, the prevention of mother-to-child transmission of HIV (PMTCT) works on two fronts: (1) integrating the response to HIV, maternal, reproductive, and child health to promote quality service delivery, and (2) strengthening procurement and laboratory systems.

Source: Dominican Republic USG country team

USG-supported countries with less-developed health systems also are programming multiple earmarked funds to improve system functioning. For example, Nepal is improving the national logistics management information system, strengthening integrated local health governance activities across health sub-sectors, and enhancing training for district-level accountants to build their capacity to manage USG and other funds. Country teams with substantial HIV/AIDS, malaria, and TB funding, particularly those in sub-Saharan Africa, are providing good models for leveraging disease-specific programming to achieve program-specific goals with a broader health system impact (Boxes 11, 12).

Box 11. Transition in Kenya

Kenya is working to transition several parallel systems to national systems.

- The USG/Kenya is helping to strengthen human resource for health functions of the government and private sector partners. This will help in addressing health workforce shortages, including hiring health workers to meet service needs in rural areas and hard-to-reach regions, and in strengthening mechanisms to transition workers from donor-funded programs to becoming employees of the Government of Kenya (GOK).
- Systems and capacity are being built in the national medical supplies agency (KEMSA) to strengthen governance, warehousing, distribution, inventory tracking, procurement, finance, and administration to enable the USG (with a view to move to a host country contracting modality) to manage and distribute USG commodities through KEMSA.
- Alongside capacity-building efforts to improve oversight, planning, and monitoring functions within key MOH divisions, parallel information systems under PEPFAR are being phased out and eventually incorporated within the national web-based HMIS.
- Other USG-supported sub-information systems for human resources, logistics/pharmaceuticals, etc. are being modified to ensure inter-operability with the national HMIS.

Source: Kenya USG country team

Box 12. Smart integration: increasing access through PHC mobile clinics, a promising public-private partnership in Namibia

Mobile clinic initiatives in Namibia have typically focused on offering singular interventions such as those for immunization or HIV/AIDS counseling and testing. To broaden this effort, the USG is helping to support a public-private sector initiative to increase access to services by bringing an integrated package of primary health care (PHC) services to communities. Currently in pilot phase, the PHC mobile clinic initiative works as follows:

- A private corporate entity procures the mobile clinic vehicle;
- Employers in remote locations (such as farms) pay for the clinic to offer health care services to their employees and dependents (payments cover the transport and operational costs); and
- En route to these locations, the mobile clinic offers services to communities based on an agreement with the Government of Namibia, in which all commodities are provided by the Ministry of Health, while the National Institute of Pathology covers related services.

The mobile clinic visits each point along its route once a month and provides, through a registered nurse, basic PHC services, including follow-up, referrals, and even picking up medication for patients with chronic conditions who would have to otherwise travel long distances to a health facility. The USG helped develop the memorandum of agreement between the Ministry and the private mobile clinic, financed the pilot, and provided technical assistance to identify ways to increase private sector funding.

Source: Namibia USG country team

In addition, PEPFAR tracks HSS investments that link to HIV outcomes in the following areas: activities that contribute to national-, regional-, or district-level systems by supporting finance, leadership, and governance (including broad policy reforms related to stigma, gender, etc.), institutional capacity building, supply chain or procurement systems, Global Fund programs, donor coordination, and human resources for health. Emphasizing capacity expansion and sustainability, PEPFAR country teams have planned almost $1 billion in HSS-specific activities since 2009. These investments are complemented by HSS-related investments that are supported through prevention, care, and treatment activities, as well as laboratory strengthening and strategic information.

► **Improved collaboration across USG agencies**

Maximizing the USG investment in HSS to achieve positive effects across priority health programming requires good collaboration among USG agencies, which is occurring in countries in all regions of the world. One area in which there is increased collaboration under GHI is health workforce development. In many countries, USAID and HHS/CDC both address health workforce needs and work together to minimize duplication. HHS/CDC typically invests in the public health workforce by training epidemiologists, laboratory technicians, medical and post-graduate experts, and strengthening public health institutes (Bloland et al., 2012). USAID typically builds the capacity of service delivery manpower in both the public and private sectors, such as nurses, midwives, community health workers, and pharmacists, among other cadres.

Through PEPFAR, the Fogarty International Center of the National Institutes of Health and the HIV/AIDS Bureau of HRSA are administering the *Medical Education Partnership Initiative (MEPI)*. MEPI supports foreign institutions in sub-Saharan African countries[12] to develop, expand, and enhance models of medical education (Fogarty International Center, 2012). Quality and research are core features of this model, which has adopted a university (U.S.-based) to university (African-based) partnership approach. USG collaborators in this effort include the Department of State, HHS/CDC, DOD, USAID, and thirteen additional HHS/NIH institutes and centers, as well as PEPFAR in-country teams.

Similarly, PEPFAR's *Nursing Education Partnership Initiative (NEPI)* aims to address the critical health care worker shortage in sub-Saharan Africa by strengthening the quality and capacity of nurses and midwives (U.S. Department of State, 2012). NEPI is engaging more than fifty health-training institutions in more than fifteen African countries. African institutions design,

[12] Botswana, Ethiopia, Kenya, Mozambique, Nigeria, South Africa, Tanzania, Uganda, Zambia, Zimbabwe, Ghana, Malawi

implement, manage, and monitor activities through direct grants from the USG. NEPI relies on direct involvement of Ministries of Health and Education to engage key stakeholders, nursing schools, and nursing professional associations in identifying and addressing key gaps in nursing capacity. This effort is a partnership of OGAC, HHS/HRSA, USAID, and PEPFAR in-country teams.

Increased collaboration to achieve priority health outcomes is not limited to health workforce development. In Cambodia, HHS/CDC, USAID, and the DOD, through PEPFAR, renovate laboratories and upgrade hospitals to organize out-patient, in-patient, and critical care services more efficiently to increase service availability and quality for HIV-impacted clients. In January 2012, the Mali GHI team organized a "Science, Research, and New Technology for Development" meeting, hosted by USAID, HHS/NIH, and HHS/CDC. The purpose of the meeting was to explore ways in which the introduction of research, innovation, and new technologies can impact development work in Mali to promote Malian priorities. The Peace Corps has recently expanded its long-time collaboration with HHS/CDC through a memorandum of understanding to strengthen health systems in countries with Peace Corps health programs.

HHS/NIH, the Center for Medicare and Medicaid Services, and the Agency for Health Care Research and Quality can guide collaborative research activities with governments and other USG agencies to improve the collective understanding of the means for improving health system performance. The lessons learned from the work of the U.S. National Cancer Institute on improving overall public health system efforts to combat tobacco use (Trochim et al., 2006) can be brought to bear on country field teams' approach to operationalizing systems thinking in developing countries. Some actions that country field teams can pursue to enhance further inter-agency coordination and collaboration are presented in Box 13.

Challenges in achieving GHI health goals and the GHI Principle on HSS

There are challenges in achieving GHI health program area targets, such as reducing maternal and childhood mortality rates, while making progress on the GHI Principle on HSS. This is most evident at the intersection of vertical and health systems programming. It is precisely at this point of intersection that health planners and programmers need to calibrate interventions in both areas. The current knowledge base on what occurs at this intersection is limited.

A recent WHO comprehensive assessment of the interactions between disease-targeted global health initiatives (in particular, the Global Fund, GAVI, PEPFAR, and the World Bank's Multi-Country AIDS Program) and country health systems produced inconclusive evidence on these interactions (World Health Organization Maximizing Positive Synergies Collaborative Group, 2009). The assessment found both positive and negative effects of disease-targeted

investments on all health system functions that were not the specific targets of disease-specific programs. Spicer and Walsh provide a concise, easy-to-read summary of the burgeoning literature on the positive and negative effects of disease-focused programming on country health systems (Spicer and Walsh, 2011). HHS/CDC and Makerere University in Uganda are collaborating in a nationwide, five-year study to assess the impact of USG investment in HIV/AIDS services on the utilization of other essential services and health outcomes.

Box 13. Ideas for improving collaboration among USG agencies supporting HSS

- Begin with a country's health plan/strategy, the GHI Strategy, and all relevant USG plans (e.g., Country Operational Plan, Malaria Operations Plan, etc.) and collaborate in conducting a rapid assessment to identify both salient challenges and promising solutions to improve health system performance:
    - What do the strategies and plans identify as the most important objectives that could be addressed with USG assistance?
    - What are the most important health system constraints to achieving those objectives?
    - What is known about approaches that have proven to remove or reduce similar constraints?
    - What can each USG agency offer toward removing these system constraints to achieving GHI goals and objectives?
- Work together to ensure adequate attention to systems strengthening in national health policies, plans, and financing strategies
- Seek a shared understanding of health systems and health systems strengthening that is relevant to local country circumstances
- Ensure financing and technical assistance of sufficient quality to achieve satisfactory coverage of the most critical HSS activities
- Identify operational actions where interagency disagreement exists, and negotiate reasonable solutions for the benefit of the country and USG
- Explore options for using more efficiently existing expertise
- Explore different practical options for building USG capacity to respond to host country demands for HSS support, including filling human resource gaps and increasing HSS expertise and staffing in the field in key areas
- Consider creating a simple, single data base that reflects level of USG effort in HSS in the host country and how it relates to the efforts of other donors

The USG and every development partner must balance long-term and concerted support for systems building (with the potential of saving many lives in the future), with more short- and medium-term interventions that produce more immediate health results (such as saving lives today). Although these two aims are not in conflict—health outcomes can be pursued while simultaneously promoting country ownership and strengthening the health system (Travis et al., 2004)—they do present operational choices for USG country teams in determining how best to support HSS within the current funding environment.

The need to balance progress toward short-term goals and targets against longer-term outcomes within current budget levels and yearly funding appears to pose some of the biggest challenges for USG country teams. A sampling of the kinds of difficult questions that USG country teams continually face, and for which there are no easy, generalizable answers, can be found in Box 14. In identifying locally defined solutions for these kinds of challenges, USG country teams should ask themselves, at a minimum, what effect their support for categorical programs may have on the entire health system, and whether the support they are providing will be sustainable or at least catalyze sustainable and institutionalized processes.

Box 14. Policy and operational questions at the intersection of disease-specific and health systems programming (illustrative examples)

- Can a disease-targeted or health promotion program justify supporting better overall expenditure tracking for health?
- Is it viable for a disease-targeted or health promotion program to support overall health information system strengthening rather than work on integrating its information system alone into the existing system?
- Is it appropriate for a disease-targeted or health promotion program to sponsor leadership and management training of senior Ministry of Health officials?
- To what extent can funding for disease-targeted or health promotion interventions be integrated into the Ministry of Health's chosen budget platform for the health system?
- If the USG decides to support the Government in subsidizing medicines free of charge, what are the implications for private sector insurance companies that may be including these same medicines within their benefit packages? Will this decision distort the market?

Source: USG country teams

The twenty-seven approved GHI strategies indicate that many USG country teams are committed to using existing resources more efficiently, avoiding duplication of effort, reducing the cost to countries of doing business with the U.S. government, and promoting sustainable programs—all of which have been identified as potential threats to systems building in a categorical program funding environment (WHO Maximizing Positive Synergies Collaborative Group, 2009; Travis et al, 2004). The Kenya strategy speaks for most about the potential of GHI: "GHI provides the opportunity to establish a more deliberate approach to integrated planning, coordination, and measurement across PEPFAR, PMI, and other USG programs to ensure a comprehensive package of services without unnecessary duplication of effort." A representative example of the mix of activities many GHI strategies propose to work more efficiently under GHI comes from Mozambique (Box 15).

Box 15. Mozambique: seeking synergies and efficiencies

- Under GHI, existing USG provincial coordination teams will ensure that activities in each of the three focus provinces effectively rationalize and align all USG investments, through implementing partners and direct financing to the government, and ensure provincial priorities and planning are captured in national planning processes and documentation
- USG is promoting sustainability through improved financial management and tracking of resources and by promoting greater contribution from the Mozambican government to its own health budget
- To better coordinate and maximize investments, the USG will develop a Health and Civil Society Engagement Strategy for Mozambique. The strategy will leverage all USG investments and partners, including those supported by health, democracy and governance; complement the work of other donors; and highlight the three focus provinces
- Linkages will be created to USAID's Democracy and Governance (DG) program, which will include strengthening media capacity to inform citizens and building civil society organizations' capacity to represent citizens' health priorities. Health and DG teams will work together to train journalists and civil society on governance issues in the health sector and the roles and responsibilities of rights-claimers and duty-bearers
- The USG will explore opportunities to move national public health care workers currently funded by the USG through implementing partners into the government payroll system to ensure all health care workers are captured in the human resource information system for tracking and planning purposes.

Source: Mozambique GHI Strategy

Collaboration with Others

The USG cannot and does not work on HSS in isolation. Neither USG resources nor expertise are sufficient to ensure adequate coverage of the broad range of diverse and complex health system challenges in any one country. Only by working with others—host countries, bilateral and multilateral partners, and global health partnerships—can the USG hope to maximize the return on its investment in HSS. This section of the paper will examine how the USG is working with host countries both within and outside the health sector to build ownership and capacity for HSS, and with multilateral, bilateral, and other partners. Challenges are highlighted at the end of the section.

► Working effectively with host countries to build ownership and capacity for HSS

Country ownership

Beginning with the *International Conference on Financing for Development* in Monterrey, Mexico, in 2002, the last ten years have been characterized by a gradual evolution in development assistance from a dependency relationship between donors and recipient countries, to a partnership model, based on mutual benefits and accountabilities. Countries have been asking donors for more information and greater transparency about the assistance

they provide, more control over the financial and non-financial resources placed at their disposal, and greater support in building capacity to lead their own development policies and strategies and manage their own development work. In turn, donors have asked that countries improve their institutions, address corruption, and deliver results in exchange for support of national priorities, increased harmonization of assistance with other donors, use of local systems, and greater investment in capacity building (Paris High Level Forum, 2005).

This evolution has been codified in a series of international consensus statements, including the Monterrey Consensus (2002), the Paris Principles on Aid Effectiveness (2005), the Accra Agenda for Action (2008), and, most recently, the Busan Partnership document (2011)[13], all of which the USG has endorsed. In translating these statements of intent into action, the USG recognizes that there are policy, budgetary, legal, financial, technical, and other constraints on both sides of the partnership. Working through these constraints requires trust, mutual respect, compromise, and a long-term perspective. Resolving these issues in a mutually satisfactory manner is fundamental to HSS. For a more in-depth discussion of and additional perspectives, insights, and ideas about country ownership, see the *GHI Principle Paper on Country Ownership*.

In addition, GHI country strategies provide some evidence of the USG's commitment to this new business model. In Bangladesh, the USG country team has seized the opportunity offered by GHI to shift its focus toward a more country-led and owned process (Box 16). In response to the leadership demonstrated by the Liberian Ministry of Health and Social Welfare, the USG GHI strategy in Liberia calls for a gradual shift of future investment in service delivery to government systems between 2011 and 2021. The GHI Strategy in Malawi plans to advance country ownership through new leadership mentoring, supporting the private sector to deliver health services, transferring skills in health policy and guideline development, and increasing engagement in the health sector of the Parliamentary Committee on Health. The USG in Ethiopia is supporting the Ministry of Health in assuming management responsibility from the Red Cross for the National Blood Transfusion Service.

In many other countries, demand- driven technical assistance, project-level support, and government and local institution capacity building in stewardship, policy implementation, and monitoring and evaluation, are helping country teams deliver on the USG commitment to help enhance country-led and country-owned sustainable health systems.

[13] http://www.oecd.org/document/12/0,3746,en_2649_3236398_46057868_1_1_1_1,00.html#agreement

Box 16: Commitment to country ownership in Bangladesh

Although USG, NGO, and private sector programs have made significant contributions to the health sector, GHI offers the opportunity to foster a country-led and -owned process in helping Bangladesh achieve its MDGs. Senior Bangladeshi officials have applauded the USG's desire to support their next health sector program and to assist with coordination of fifteen other donors in one of the largest non-PEPFAR programs in the world. Using the principles of GHI, the USG has supported host country systems and has been flexible in responding to important country requests. In the last several months, the USG has mobilized technical assistance to set up quickly a Project Preparation Cell in the Ministry of Health and to provide guidance in its development. The USG has provided critical equipment, helped support logistics, and organized exchange visits to help managers identify best practices elsewhere that can be adopted in Bangladesh. At the same time, USG local implementing partners are now being seen as a resource to the government by providing technical assistance in new interventions, such as rolling out newborn resuscitation, reestablishing a cadre of skilled providers for voluntary sterilization, and testing public/private partnerships in low performing areas and urban slums to expand access to and use of high-impact, essential health services.

Source: Bangladesh USG country team

Capacity building

Building local capacity is a key dimension of strengthening country ownership and by extension country health systems. The USG's substantial field presence[14], an expanding number of staff with responsibility for HSS and with access to technical back-up in the U.S., and a broad spectrum of international and local implementing partners with HSS expertise allow the USG to be responsive to a wide range of capacity building demands. The USG's project focus, which is often characterized by numerous smaller transactions with government at all levels of the system involving multiple technical partners, enables the USG to act swiftly and be responsive.

For example, USG country teams are preparing local institutions in PEPFAR-supported countries with Track 1 ART partners to assume lead responsibility for delivering HIV/AIDS services previously delivered by international partners[15]. This transition is intended to equip Ministries of Health with the capacity to fully lead and manage national HIV/AIDS treatment and care programs and to increase efficiencies to maximize scale-up of HIV/AIDS treatment under GHI.

Conducting HSS assessments, tracking health system performance, and developing local institutions are some key capacity-building activities that merit strengthening and expansion depending on country context.

[14] This includes locally employed staff, who provide the USG with valuable insights about the workings of a country's health care delivery system and the dynamics of political and administrative structures at local, state, provincial, and national levels.

[15] The Track 1.0 program initiated HIV treatment to more than 1.1 million people at 1,250 facilities in 13 countries, including 2,226,121 patients enrolled for palliative care.

Health system assessments

Supporting a country in conducting a comprehensive assessment of its health system will not only help diagnose strengths and weaknesses, and identify or confirm priority areas of investment, but also will help host-country personnel develop skills countries need to identify priorities for improvement and areas for technical assistance. Furthermore, the dialogue created through such an assessment allows for consensus-building among the USG, host countries, and partners, and provides direction for health system investments. Namibia, Vietnam, Nigeria, South Sudan, and Benin, among other countries, have adapted and applied an assessment tool developed by USG implementing partners.[16]

Tracking performance

Facilitating a country's regular tracking of progress on health system performance, with an eye toward its eventual transition from dependency on USG development assistance, also can build local HSS capacity. Formulating explicit guidance and setting targets related to HSS will allow host countries, both within government and civil society, and through non-profit organizations and the private sector, to monitor country progress, as well as improve their management and financing of the health system. Targeted incentives and disincentives can be considered for promoting sustainable progress, particularly to encourage those who provide technical assistance to build sustainable capacity. When expected performance is reached, a pre-defined exit strategy can be implemented (Box 17).

Box 17. Family Planning Graduation in Nicaragua

FY 2011 marked the fourth year of a five-year strategy to ensure an orderly phase out of USAID family planning assistance in Nicaragua. The strategy addresses five mutually agreed upon critical areas needed to ensure and sustain a stable contraceptive supply and the continuation of quality family planning services: contraceptive security, market segmentation, health system strengthening, health care services and quality assurance, and data for decision making. Key factors in the move toward sustaining Nicaragua's program have included training and technical assistance of Ministry of Health staff in forecasting and procurement, expanding the network of service providers, improving compliance with quality standards, improved logistic management, and financing. The government of Nicaragua mobilized over $2 million from the national treasury to directly purchase contraceptives, meeting 84% of contraceptive demand in the public sector. Today, more family planning providers allows the Ministry of Health to use its resources for family planning services more efficiently. Improvements in logistics, financing, and staff capacity and quality have resulted in consistent availability of contraceptives across the country. During FY2011, stock-outs of family planning methods were reduced to just 1.4%. Furthermore, these improvements have been linked to a 55% increase over FY2010's couple years of protection (Annex 5). Nicaragua's family planning program is well on its way to delivering essential goods and services to its people through a transparent, accountable and effective system.

[16] http://www.healthsystems2020.org/content/resource/detail/528/

Developing indigenous capacity-building entities

Sponsoring local entities that can serve as capacity-building hubs for host country personnel, particularly if those entities address systemic level concerns and remedies, is another capacity-building activity. One such example is the USG's long-standing relationship with the Kinshasa School of Public Health (KSPH) in the Democratic Republic of the Congo (DRC) (Box 18). For additional perspectives on capacity building, see the "PEPFAR FY2012 Capacity Building and Strengthening Framework" (PEPFAR, 2011).

Box 18. Building local capacity in the Democratic Republic of the Congo

The KSPH has developed a reputation for providing high-quality, masters-level, public health training to Congolese health care practitioners. KSPH has developed a curriculum that promotes a model of public health inextricably linked to the established health care delivery system. The curriculum focuses on prevention through the lens of epidemiology, operational research, data collection and management, program design, health education, and communications. As these newly trained health care practitioners leave KSPH and enter the workforce—they are required to return to their current position or one of equal or increased responsibility after graduation—they bring an enhanced perspective on the established health care model to their work, and are able to push that model toward one that addresses both disease control and prevention, as well as care and treatment.

In addition, the USG supports the KSPH in providing technical assistance to both the public and private sectors in strengthening monitoring and evaluation (M&E) systems through both training programs for M&E officers and technical support for periodic surveys and mapping efforts. Through pre- and in-service training of laboratory staff, and through equipping and rehabilitating laboratory facilities, the USG is also helping to strengthen the national public health laboratory network and the Early Infant Diagnosis Network.

In supporting KSPH, the USG provided the school with a range of training opportunities focused on enhancing its scientific, management, administrative, and technical expertise. This has been a highly successful endeavor, particularly the establishment of partnerships between KSPH and U.S. schools of public health. KSPH professors have received training, at both the Masters and Doctoral levels, in American schools of public health. Upon returning to KSPH, this highly trained faculty has helped the school to develop its ground-breaking curriculum, in line with U.S. school of public health accreditation standards. These USG-supported trainings also have increased KSPH's managerial and programmatic capacity, allowing KSPH to house and feed its students, maintain its vehicles, and engage in collaborations, partnerships, and program operations with technical and development agencies, including HHS/CDC, HHS/NIH, GFATM, World Bank, WHO, UNICEF, UNDP, UNAIDS, and the MOH.

Source: GHI Country Support Unit

Engagement with non-health sector entities

USG country teams can work with actors and entities that are not in the health sector, but whose decisions and actions can have an important effect on health. Such inter-sectoral activities, all of which are intended to promote transparency, good governance, and accountability, can contribute to sustainability and equity in health system performance,

outcomes, and impact. USG country teams can work with national and local governments, both directly and through their democracy and governance colleagues—who are supportive of and keen to engage with HSS activities[17]—to ensure that health is part of their agenda.

USG country health teams' influence on central Ministries of Education, Finance[18], Decentralization, and Planning—all of which have important roles to play in health—is often limited. Nevertheless, USG country teams can provide Ambassadors, USAID Mission Directors, HHS/CDC Directors, and other USG leadership with compelling cases they can use to appeal to these ministries. The Guatemala GHI strategy envisions a major policy intervention to increase access to family planning and reproductive health services by supporting the central Ministry of Education in incorporating age-appropriate information and education activities in the school curricula.

Direct engagement with district, municipal, and community officials and representatives has become increasingly prevalent. For example, each year the President of Rwanda signs performance-based contracts ("IMIHIGO") with district mayors on behalf of their constituencies. Under the supervision of the Prime Minister, the resource transfer to the mayors is approximately US $0.25 per capita for engaging community-based institutions, non-governmental organizations, health promoters, and private health care providers to deliver essential, low-cost services at the household and community level (UNICEF, 2008). The mayors report their results directly to the President on an annual basis. The Ministry of Local Administration has extended these contractual arrangements to households[19]. As part of its GHI country strategy, the Bangladesh USG team plans to initiate new partnerships with municipal and city corporations responsible for providing services to the country's rapidly growing urban slums.

Supporting non-health sector actors in decentralized settings to improve health system performance can be accomplished through various mechanisms, including supporting local development plans, signing memoranda of understanding or cooperative agreements, assigning

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[17] Illustrative activities that have been suggested by USG health and democratic governance staff to better leverage the HSS-democracy and governance link include opening and sustaining a dialogue with democracy and governance colleagues; pursuing joint inter-sectoral activities where possible, such as participation in comprehensive joint assessments of the health sector that examine the influence of democratic governance on health systems; and supporting efforts by governments and local institutions to develop new governance structures, particularly those at the local level, which include strong civil society representation, participation, and engagement with not only the health system but also parliaments and sub-national administrative structures.

[18] Ministries of Finance, for example, can be a direct entry point to other entities through bilateral cooperation agreements (DOAgs or SOAgs).

[19] http://allafrica.com/stories/201202280206.html

technical support to local authorities, or setting up local funds for competitive grants. For example, USAID/Uganda is planning to sign a District Operational Plan with local governments in selected focus districts as part of its new USAID Country Development Cooperation Strategy (Box 19). This pilot effort will be signed by local government leadership, USAID, and USAID partners working in the district(s) and, should it prove successful, could be expanded to a whole-of-government approach to ensure that all USG partners and funding are aligned.

Box 19. Achieving shared development objectives in Uganda

To better coordinate its assistance across different districts within Uganda, USAID/Uganda developed the District Operation Plan (DOP). The DOP helps ensure that USAID programs are aligned with district development plans, eliminating duplication and improving complementarity among USAID implementing partners while simultaneously decreasing the districts' transaction costs. The DOP also helps improve USAID collaboration with local governments and other district-level stakeholders, strengthening joint coordination, implementation, monitoring, and evaluation, making it easier for district governments to understand USAID's portfolio and provide feedback on the performance of USAID's projects. The ultimate aim of the DOP is to increase district ownership of USAID-sponsored development projects, a key factor for increased aid effectiveness. While the DOP is still in the pilot phase, the hope is to expand the framework to all interested USG agencies and partners under GHI.

Source: Uganda USG country team

Innovations can be found in other sectors whose activities contribute to sustained health outcomes, such as education for women and girls. Through their HSS efforts, country teams can support the *GHI Women, Girls and Gender Equality (WGGE) Principle* in several ways:

- By being vigilant about unintended programmatic consequences that could exacerbate gender inequality
- By ensuring human rights are embedded in HSS activities
- By applying culturally sensitive HSS approaches that acknowledge the significance of traditions and reaffirm positive and protective norms
- By looking for opportunities to improve gender relations

WGGE principles can be interwoven into the HSS process, by considering and taking the kinds of actions summarized in Box 20. For more in-depth discussion of and additional perspectives, insights, and ideas about the WGGE principle, see the *GHI Supplemental Guidance on the WGGE Principle.*

Box 20. HSS and the WGGE Principle: Appropriate actions

- Ensuring equitable access to essential health services at facility and community levels
- Increasing the meaningful participation of women and girls in the planning, design, implementation, monitoring, and evaluation of HSS programs and activities
- Monitoring, preventing, and responding to gender-based violence
- Empowering adolescent and pre-adolescent girls by fostering and strengthening their social networks, educational opportunities, and economic assets
- Engaging men and boys as clients, supportive partners, and role models for gender equality
- Promoting policies and laws that will improve gender equality, health status, and/or increase access to health and social services
- Addressing social, economic, legal, and cultural determinants of health through a multi-sectoral approach
- Using multiple community-based programmatic approaches
- Building the capacity of individuals, with deliberate emphasis on women, as health care providers, caregivers, and decision-makers through health systems, from the community to the national level
- Strengthening the capacity of institutions to improve health outcomes for women and girls and promote gender equality

Source: WGGE Working Group

► Working effectively with multilateral, bilateral and other partners

The health system needs of most countries far exceed the USG's available resources. Furthermore, the USG is often but one of many actors in the health sector. Consequently, donor mapping and coordination, as well as greater clarity around roles and responsibilities of both donors and governments, will continue to be of paramount importance for building strong health systems. USG country teams play an important role with other donors in setting priorities, defining areas of common interest, and developing clear implementation and technical assistance plans. The USG also contributes to ensuring that financing and technical assistance are adequately aligned to achieve satisfactory coverage of the most critical HSS activities in a country.

Successful partnering with multilaterals around HSS—such as WHO, the World Bank, UNICEF, and UNAIDS—can add value to the USG's efforts, particularly at country level. Some of those advantages reported by USG staff are as follows:

- Greater coverage of the range of essential health system functions that the USG cannot address alone
- Increased USG recognition and credibility in the eyes of governments, particularly when partnering with UN agencies

- Access to additional resources that the USG can leverage, which brings both cost savings and greater opportunities for the USG
- New perspectives for the USG and an opportunity for the USG to demonstrate its expertise

In the Dominican Republic, the USG collaboration with the World Bank-led "Participatory Anti-Corruption Initiative" addresses barriers to the efficient use of resources within the health sector, most recently with respect to procurement. USG-supported countries in the E&E region have reported excellent synergies and leveraging with the World Bank, where USG technical assistance has helped move funds and stimulate progress on a range of activities. As part of its new GHI strategy, the USG country team in Guatemala plans to complement the expansion of emergency obstetrical care (EOC) services financed by the World Bank, and through technical assistance and enhanced pre-service training (in collaboration with UNFPA) help ensure that indigenous women are using the newly established EOC facilities.

There are many examples of excellent USG collaborations with bilateral partners. For example, in Mozambique, the multi-donor "Human Resources for Health Working Group," in collaboration with the Ministry of Health, planned and mapped resources among donors to avoid duplication and improve coordination. The USG works closely and collaboratively with AusAid in Indonesia to ensure effective coordination and complementarity of efforts in HSS. As part of its GHI strategy, the USG team in Tanzania will leverage its funding with that of the Netherlands, Norway, Japan, and Germany to support a monitoring and evaluation strengthening initiative that ensures all USG investments in routine data collection surveys and surveillance, vital registration of births and deaths, and research are aligned with Tanzanian systems and vision.

Although the USG may not be a signatory to a global health partnership framework, such as the International Health Partnership (IHP+)(Box 21), the USG often collaborates with multilaterals, bilaterals, and governments in supporting HSS through such frameworks. Nepal is an excellent example. The USG country team has collaborated with the government and development partners in the planning and implementation of the national strategy assessment and other planning processes that led to the development of the national IHP+ country compact, which reflects not only the Paris and IHP+ principles, but also the USG's GHI principles. Also, the USG team's signing of the IHP+ Joint Financing Agreement is an example of how a non-pooled donor can participate in this collective international effort to harmonize fiduciary arrangements at

Box 21. The International Health Partnership (IHP+)

The International Health Partnership (IHP+) seeks to increase donor confidence in and support for one national health plan (via a joint assessment using a tool that assesses the quality, relevance, and feasibility of the draft national health plan); one results monitoring framework; and one fiduciary framework (IHP+, 2010). A key feature of IHP+ is the country compact, which describes the respective roles and responsibilities of governments and development partners (Taylor, 2010). These agreements are not legally binding and carry no immediate financial benefit; rather, they are political documents, negotiated jointly by governments and their partners (Taylor, 2010). To date, nine countries have signed new compacts or revised existing partnership agreements: Benin, Cambodia, Ethiopia, Kenya, Mali, Mozambique, Nepal, Nigeria, and Uganda.

country level. In support of the Paris Declaration on Aid Effectiveness, the USG in Nepal recognizes the Health Systems Funding Platform (the Platform)[20] as a mechanism to deepen alignment and harmonization among development partners and host countries, and thereby accelerate progress toward the health MDGs. The USG has agreed to single reporting requirements and is exploring how it can work directly with governments through public financing mechanisms (Box 22).

In USG-supported countries that are not part of IHP+ or who have not yet signed a country compact, they may still be implementing their health programs consistent with the Paris Declaration Principles, often through country-led partnership frameworks of one form or another. In Kenya, the USG is viewed as a leading partner and donor despite not signing on to the IHP+. Similarly, although the USG is not a signatory to Bangladesh's IHP+ or a party to the $4.2m pooled-funding mechanism, the government has welcomed the USG's reengagement, technical leadership, and third-party funding arrangements with implementing partners, all of which support the national program in achieving its MDGs.

[20] Created by the World Bank, GAVI, and the Global Fund in 2009, the Platform is an attempt to better rationalize the HSS assistance each entity provides to countries, to improve development effectiveness, and to reduce recipient and donor transaction costs to improve health outcomes, particularly those related to MDGs 4, 5, and 6 (IHP+ 2010). The Platform is attempting to transform the current paradigm of external funding for HSS to one that is country- and national-strategy based, flexible, and aligned to country programming and budget cycles. The Platform hopes to harmonize existing financial support for health systems (often provided through separate grants) through consensus frameworks for monitoring and evaluation, procurement, and fiduciary measures. Countries may obtain new funding either through a government-partner proposal or a joint assessment of the national strategy. The website for the Platform can be accessed at http://www.theglobalfund.org/en/hsfp.

Box 22: Improving aid effectiveness in Nepal

Taking an important step associated with the Platform, the USG in Nepal signed a new, unprecedented Joint Financing Arrangement (JFA) in August 2010 with the Government of Nepal (GON) and Nepal's other leading aid donors in the health sector (AusAID, DFID, GAVI Alliance, UNFPA, UNICEF and the World Bank). Under the terms of the JFA, the U.S. will join other donors to provide financial support in alignment with the Nepal Health Sector Plan (NHSP) II. While AusAID, DFID, GAVI Alliance and the World Bank will "pool" their funds directly with GON resources, the U.S. and other donors will provide additional on-budget resources for complementary and well-coordinated activities that support the NHSP II. Although Nepal will continue to receive funding through the various donor channels and processes, the U.S. and other JFA signatories have agreed to harmonize financial management and reporting.

To further align resources under the NHSP II that are channeled outside of on-budget support, a Joint Technical Assistance Arrangement (JTAA) is currently in development. The JFA and JTAA together will strengthen alignment of all health donor assistance under a common health sector plan with expected gains in efficiency and effectiveness. Such harmonization will decrease the transaction costs borne by Nepal in meeting multiple (and often similar) donor-specific requirements. With a reduced burden, the GON can direct its energy and focus to its core function and much-needed role of coordinating the sector, setting policies and standards, and improving access to essential health services, especially among marginalized, poor and remote populations. Overall gains in efficiency, coordination and management will enable improved service delivery and increased service utilization, which will result in improve maternal and child health and better control of HIV/AIDS and other communicable diseases.

Source: Nepal USG country team

Challenges in working with other key stakeholders

According to field staff, there are certain host country government and USG decisions and behaviors that can weaken the partnership and thereby slow the progress toward country ownership, regardless of the magnitude of good will on each side, or the quantity and quality of support provided by the USG. A sample of those government and USG decisions/behaviors, respectively, is presented in Box 23. Working with governments, NGOs, and other stakeholders and across the USG to improve decision making and identify options to overcome these kinds of obstacles under different circumstances is the core business of HSS. Addressing these obstacles requires consultation and collaboration between HSS experts and other actors both within and outside of the health sector.

Similarly, field staff have identified certain actions that can reduce the potential for capacity building (Box 24). To help counter these actions, one suggestion is to designate "Sustainability advocates" within every USG country team to help institutionalize "sustainability thinking" in every USG-supported country.

Box 23. Decisions/behaviors that may slow progress toward country ownership

Governments

- Weak government leadership and oversight of HSS, including insufficient allocation of adequate resources for HSS, or a failure to ensure collective buy-in and engagement from parliamentarians, NGOs, faith-based organizations, the media, community associations, and citizens, all of whom have a stake in HSS
- Government failure to lead annual planning processes; to adopt recommendations generated through participatory planning; to use information from disease burden analyses, comprehensive health system assessments, or past evaluations to guide decision making; to implement consensus policies; or to scale up best practices
- Absence of adequate job descriptions for the health workforce and standard procedures for rewarding good and sanctioning poor performance at every level
- Lack of continuity in staff placements
- Corruption, patronage, tolerance of inequities, and other governance deficiencies

USG

- Incomplete understanding of the way money flows within the entire health (such a priori knowledge can help identify where USG investments can add value)
- USG support for service delivery platforms that fragment care—such as when full-service centers are replaced by discrete, specialized centers that force patients to make multiple visits to obtain appropriate care
- Hiring the best and brightest local professionals, thereby contributing to the "brain drain" of experts who might otherwise work within the system to strengthen it
- Inadequate support to countries for tracking health expenditure patterns over time
- Inadequate attention to helping Ministries of Health develop more productive working relationships with their own Ministries of Finance, thereby missing out on opportunities for more substantial and timely domestic allocations to the health sector as well as for enhancing stewardship

Source: USG country teams

Box 24. USG actions that may impede capacity building

- Direct provision of services by USG or its partners in non-crisis situations
- Development of systems or sub-systems for managing human resources, medical products, capacity building elements, and/or information that operate in parallel to the indigenous system that includes government, the private sector, NGOs, politicians, and faith-based organizations, among others
- Direct supplementation of the salaries of government health workers during normal working hours
- Hiring of local staff without a plan for transitioning them to host country systems
- Work by US-based contractors that does not build local capacity to assume responsibility for HSS

Finally, collaboration with development partners is not without its challenges. Uneven resource envelopes, different reporting requirements, conditions imposed on funding support, and an imbalance in local staffing or technical expertise are some of the challenges field staff have reported in working with multilaterals. Where there may have been some difficulties with bilaterals, field staff often trace them, in part, to varying perceptions of government priorities

(e.g., certain instances in which a country's national health priorities or national burden of disease profile and the funding available may be misaligned); European bilaterals' preferences for budget support and pooled financing; and disagreement with some U.S. rules and regulations (particularly in the area of family planning).

Working through these challenges in an open and creative manner for the ultimate benefit of the host country is an important dimension of HSS. Some ideas that USG teams can consider to ensure that support for HSS in the current funding environment is integrated and coordinated both within the USG and with other donors and countries to achieve priority health outcomes are presented in Box 25.

Box 25. Considerations for ensuing well coordinated HSS funding in the current funding environment

- Confirm that Important health sector-wide constraints or gaps are not being overlooked
- Confirm that proposed activities for funding by USG are not replicating activities being funded by other donors, or supporting programs that have been tried in the past with little success
- Be wary of simplistic solutions for systemic problems: financing more and more inputs may not be the answer
- Ensure that Investments are consistent with government policy and are fully aligned with on-going work
- Ensure that funding for HSS is not displacing HSS support from the government and other partners
- Ensure that USG financing is not exacerbating what may be an already fragmented financing picture for HSS
- Plan for recurrent expenditures through a long-term financing strategy
- Look for opportunities to complement or capitalize on existing investments from other sources
- Minimize the need for parallel financial management and other procedures for USG-supported HSS activities
- Ensure that countries are able to absorb USG support and that such support is strengthening not weakening partner coordination

Measuring Progress

A pressing challenge for the USG is to develop and apply sound metrics for measuring progress in HSS. Meeting this challenge requires consensus on an evaluation framework. The framework proposed by Kruk and Freedman (Kruk and Freedman, 2009)—which posits that well-performing health systems are effective, equitable, and efficient—is relevant to the USG because it is consistent with evaluating the effects of HSS within a categorical funding environment. Although financing has not always been sufficient to support evaluations of HSS effects at country level, information in GHI strategies suggests an increased recognition of the importance of and planning for how to evaluate HSS in countries, as reflected in strategies from Armenia, Swaziland, Tanzania, and Uganda, among other countries.

The USG can help partner countries measure progress in HSS in several ways:

- through sustainable and equitable improvements in *health status*—such as reductions in mortality, morbidity, and fertility—as well as in the protection of citizens from catastrophic financial loss and impoverishment due to illness, and in their enhanced security, particularly among disadvantaged groups;

- through more *proximate measures* of progress linked to ultimate impact, including increased access to and use by the population of high-impact, safe, affordable, and high-quality public and private health services; enhanced client satisfaction with services; health-promoting behavior change at the household and community level; and greater efficiency and system responsiveness; and

- through enhanced *health system performance* in terms of (1) improvements in essential core functions of the system (Box 26), as well as (2) equitable, durable, and often systemic improvements in institutions—laws, regulations, policies, budgets, processes, procedures, organizations, and coalitions—that improve multiple health services, achieve multiple sustainable outcomes, and promote the system's reduced dependency on donor funding. These measures can be both quantitative and qualitative in nature, and require baseline and benchmark data, as well as performance targets.

Box 26. Examples of potential measures for improved performance in core functions

- *Financing*: improved patterns of public financing and increases in financial protection (e.g., reduction in out-of-pocket payments as a share of total health spending)
- *Service delivery*: improvements in the scope, coverage and quality of cost-effective services with high impact (e.g., number of health facilities with fully functioning basic emergency obstetric and neonatal care services)
- *Health workforce*: density, composition and quality of the health workforce and their retention (e.g., increase in the number of health workers per 1,000 population)
- *Information*: extent to which information is made available and used effectively by all health system participants in planning and decision making (e.g., improvement in health management information system (HMIS) performance as measured by an HMIS index)
- *Medicines, vaccines and technology*: availability, quality and cost-efficient procurement, distribution and use of appropriate medicines, vaccines and technologies
- *Governance*: evidence of increasing transparency, accountability, and responsiveness to citizen preferences (e.g., general government expenditure on health as a percentage of total government expenditure [%]; adoption of key policies such as authorization of midwives to administer a core set of life-saving interventions; programmatic and budget health data regularly published in the public domain)

USG country teams also can help countries locally define those HSS indicators of success that are most relevant to their circumstances, sensitive to their and partner investments, and

achievable within local political realities. USG country teams may wish to consult the following sources for indicators to measure changes in the performance of the core functions of the health system:

- Monitoring the building blocks of health systems: A handbook of indicators and their measurement strategies (WHO, 2010)
- Handbook on Monitoring and Evaluation of Human Resources for Health with special applications for low- and middle-income countries (WHO, World Bank, USAID, 2009)
- Monitoring and evaluation toolkit: HIV, TB and Malaria and HSS (Global Fund, 2009)
- Measuring the impact of health systems strengthening: a review of the literature (USAID, 2009b).

The following are two resources that may be helpful for measuring systemic health system improvements.

- Measuring Results of Health Sector Reform for System Performance: a Handbook of Indicators (Knowles JC, Leighton C and Stinson W, 1997)
- The Global HIV/AIDS Initiatives Network website[21]

A global consensus on how to measure progress in HSS across countries remains elusive. The most recent collective effort has come from the WHO, in collaboration with the GAVI Alliance, the Global Fund, and the World Bank[22], a process that the USG is following with interest.[23]

Enhancing Evidence

Nations, including the U.S., multilateral and bilateral development agencies, public-private partnerships, foundations, and academia have been working for decades, individually and collectively, to help strengthen health systems and to advance knowledge and good practice in HSS around the world. Despite these efforts and the increased attention to HSS during the last decade, there is still much the global community does not know about how health systems operate or which HSS activities, alone or in combination, are associated with improved health system performance, improved health outcomes, and sustained impact in different settings. Although research in HSS is a global public good that is crucial to advancing USG and others'

[21] http://www.ghinet.org/outputs_2010.asp
[22] WHO, Guidance for Monitoring and Evaluation of National Health Strategies, 28 August, 2010.
[23] This collaboration has produced Illustrative examples of indicators for inputs and processes (health financing, health workforce, infrastructure and IT, and procurement and supplies); outputs (service readiness and access; service quality and safety); outcomes (coverage of interventions, risk factors and behaviors); and impact (health status and financial risk protection).

understanding of how to improve health system functioning and population health, the overall USG and global investment in HSS research to date has been limited (Remme et al., 2010).

HSS activities at country level are highly context-specific and attributing health system change to USG or other stakeholder interventions alone is problematic. However, research, combined with expert consensus, can offer clear and consistent roadmaps and predictable expectations to balance the complex demands of country-specific implementation[24]. There have been some efforts during the last five years to generate such evidence, both globally (Bennett et al., 2008) and within the USG. For example, USAID's E&E Bureau sponsored two studies that attempted to measure the impact of working on health systems in an integrated fashion (using multiple funding streams in one HSS project) to improve health outcomes (Joseph et al., 2011; Cleland et al., 2008). The findings from these studies have been mixed and more time is needed to see results. The authors recommended, however, that the USG "stay the course" in working on HSS.

The USG and its implementing partners contributed substantially to the First Global Symposium on Health Systems Research in Montreux, Switzerland, in 2010.[25] The USG is planning a significant coordinated contribution to the second symposium, which will take place in Beijing, in November 2012. Some areas of potential HSS research that country teams might consider are presented in Box 27. Several actions that the USG, particularly at headquarters level, can take to support the field are presented in Annex 4.

Box 27. Potential areas of HSS research

- Testing different approaches to better link disease-specific investments with HSS outcomes
- Investigating how and why previous HSS interventions were designed, how the intervention was implemented (including actors), and short-, medium-, and long-term intended and unintended effects
- Building rigorous, prospective evaluation research into the design of any HSS program
- Developing a robust operational research agenda for results-oriented, performance-based incentive programs
- Supporting impact evaluations mounted by the World Bank and other multilateral and bilateral donors
- Investigating cost-effective alternatives to scaling up successful approaches to HSS
- Working with governments and partners to document what works, and to manage and disseminate the new knowledge being generated by such research

[24] Experience indicates that not all HSS investments require "proof of concept" as reflected in PEPFAR, PMI, GAVI, and Global Fund authorizations to invest in HSS now.
[25] www.hsr_symposium.org

Although the USG continues to think pragmatically, based on experience and insight, about how to improve its work on HSS, an evidence-based case still needs to be made that HSS is a sustainable and affordable way of doing business.

Conclusion

The need for stronger health systems has never been greater. HSS is vital to improving health around the world, and this is a pivotal time for global health and HSS in the USG foreign assistance portfolio. Interest is high, yet the challenges and opportunities are many and diverse. USG sister agencies and development partners can play a lead role in helping to ensure adequate coverage of the many needs of complex health systems around the world, which cannot be addressed by the resources or expertise of any one USG agency or donor acting alone.

USG country teams should consider investing in HSS activities that have the greatest potential to improve health outcomes and impact as stated in national policies and plans. To achieve this goal, USG country teams should continue to promote country ownership and build capacity for managing complex, dynamic health systems in a way that is fully consistent with country priorities and best serves the needs of the population. By linking with other sectors, USG country teams can help foster sustainability in the health sector and produce collateral benefits for development. At the same time, more evidence that investment in health systems can improve and sustain the lives of poor people hopefully will increase support for these kinds of investments and provide much-needed data to guide decisions in the field.

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Annex 1
HSS Building Blocks

- *Governance.* The system provides robust oversight, regulation, and accountability for health activities and results in the public and private sectors, as well as incentives that reward good and sanction poor performance.

- *Financing.* The system generates sufficient revenue to pay for health needs; allocates these resources efficiently, effectively, and equitably; pools resources when possible to foster efficiency and to spread risks and costs; and purchases packages of high quality, high-impact services.

- *Service delivery.* The system delivers effective, safe, and high quality public and private sector services to those who need them, when and where they are needed, with maximum efficiency and patient choice.

- *Health workforce.* The system develops and supports a healthy, accessible, technically competent, adequately resourced, motivated, and well-deployed health workforce that provides essential services in accordance with standard practice guidelines in a timely, patient-centered manner to all without discrimination.

- *Information.* The system ensures the collection, analysis, dissemination, and use of timely and high quality information on health status, financial risk protection, health service use, client satisfaction with services, health behavior, and health system performance.

- *Medical products.* The system ensures, in any health care setting, sustained access to and appropriate use of essential medical products (such as drugs, vaccines, commodities, and technologies) that are safe, effective, and of high quality, and managed in accordance with appropriate local laws, policies, and regulations.

Source: WHO, 2007

Annex 2. Perceived benefits and risks of the different dimensions of the USG's multidimensional approach to HSS

	Benefits	Risks
Dimension **Functional: strengthening discrete core functions**	• Fosters a comprehensive approach to HSS that features all the essential functions of a health system • Provides a common language for a complex phenomenon • Breaks down a complex whole into smaller, digestible parts, thereby facilitating dialogue and advocacy with governments and partners at every level of the health system • A pragmatic and manageable way for the USG to engage in HSS as available funds and expertise are inadequate to address the whole system	• May exclude or inadequately address factors/actors that contribute to building strong health systems • May unduly focus on inputs, the supply side, and the public sector at the expense of processes, outputs, outcomes, the demand side, and the private sector • May dilute what should be a focus on the larger system, thereby promoting "stovepipe thinking" • May lead to selective investment in certain functions at the expense of others • May result in missed opportunities to maximize synergies and minimize the potentially harmful effects on the larger system of a function-by-function approach • Does not take into account the dynamic, interactive nature of a health system or how it works, thereby offering limited guidance about how to improve it
Relational: managing the relationships among functions	• Addresses fundamental health system problems • Has the potential to enhance the efficiency of USG investments • Has the potential to sustain USG investments • Has the potential to reduce the need for USG assistance in the future.	• May be perceived by field staff as impractical, unmanageable, or inaccessible • Difficult to evaluate, particularly interaction effects not limited to health status or quality of service provision; methods not well developed to capture and summarize effects of HSS • Data on potential cost efficiencies that might be obtained (i.e., conducting on-going activities at a lower unit cost) not readily available • May lead to a flat-lining of gains for discrete services, at least in the short term • Monitoring and managing the dynamic interplay among the essential functions of a health system will require focus considering current HSS funding and experience[26] • Likely to require significant collective action with others, higher transaction costs, and possible resistance from partners with a bias toward different investment options • May require new business models, as well as new policy and operational support for such models

[26] The management task requires (1) continuous monitoring of the effects—intended and unintended, positive and negative—of the interactions among these functions; (2) constant feedback among planning, action, and evaluation (Trochim et al., 2006); (3) good documentation of how these innovations work in practice, the process by which they are scaled up, and the cost of doing so ; and (4) multi-disciplinary teamwork and incentives that encourage teams to turn systems thinking into action (Trochim et al., 2006).

Annex 2. Perceived benefits and risks of the different dimensions of the USG's multidimensional approach to HSS (cont.)

Cross-sector linkages **(example: democratic governance)**	• Has the potential to increase the effectiveness and sustainability of health sector efforts • Can foster greater accountability and transparency • Can engage a broader array of stakeholders with important influence and decision making responsibility for critical resources • Can foster improved allocation and efficient use of resources, especially in decentralized systems • Can strengthen program management and implementation	• Limited guidance on how to integrate DG program elements and principles into other sectors, particularly health systems, has weakened the potentially productive relationship and natural linkages • Technical capacity and inclusive perspectives on both sides have been limited by professionals spending their entire careers working only in only one sector • Easier to design, harder to implement, as accountability is often an issue working across sectors • Often an imbalance of resources between the sectors

Sources: de Savigny and Adam, 2009; Trochim et al., 2006; USG field staff

Annex 3
Activities with the potential to leverage resources across disease-specific accounts by applying an HSS lens

- Priority setting for investment in health systems at all administrative levels, using country priority setting exercises (such as Marginal Budgeting for Bottlenecks) and comprehensive health system assessments carried out in collaboration with countries, donors, and the USG
- National health accounting, which enables countries to track the sources and use of all money spent in the health sector, from both public and private sources
- Community-based risk-pooling schemes, such as the “mutuelles” in West Africa, which include coverage of members for multiple services
- Improved, multi-faceted service delivery platforms, such as the introduction of primary health care as a specialty in some of the countries of the former Soviet Union and integrated community case management of childhood illness, often delivered by female community health volunteers, such as those in Nepal
- New models of comprehensive health care provision that make access to information and advice feasible for less-skilled workers in remote locations through the introduction of new information and communications technology
- Integrated information platforms that merge measures of service utilization and health across disease programs with general HR and financial expenditure information, thereby allowing for analyses of service delivery and health status patterns according to the distribution of nurses, for example, sustaining the information needs of different programs, and improving resource allocation based on patient load and services
- Harmonizing USG reporting requirements to a country’s Medium Term Expenditure Framework and MOH budget codes
- Aligning interests of the private-for-profit health sector with public sector goals of enhanced access, quality and responsiveness.

Source: NSC brief (2010), Rajkotia (2010)

Annex 4
Potential headquarter-driven actions to support HSS research by USG country teams

- Review systematic analyses of HSS that the USG has commissioned in the last five years—analyze this information, identify knowledge gaps, and make recommendations for additional analyses, if necessary
- Investigate why some countries are on track to achieve the MDGs by 2015 while similar countries in similar situations are not
- Investigate the factors that have contributed to countries' graduation (or being close to graduation) from USG development assistance
- Explore whether more information on system performance can be derived from existing routine household, facility, and other resource surveys through minimal modifications to existing tools and procedures
- Conduct new research
- Organize systematic reviews of the evidence on HSS topics of interest to promote evidence-based decision-making throughout the USG
- Explore alternative approaches to creating an institutionalized capacity for knowledge management and exchange to ensure continuous learning about what does and does not work in HSS (including, perhaps, an online searchable database of successful and unsuccessful HSS interventions), and to identify new challenges and advances in the state of the art

Annex 5
Technical Note

Couple-years of protection (CYP)

CYP is the estimated protection provided by contraceptive methods during a one-year period based upon the volume of all contraceptives sold or distributed to clients during that period. CYP is calculated by multiplying the quantity of each method distributed by a conversion factor to yield an estimate of the duration of contraceptive protection provided per unit of that method. CYP is then summed for all methods to obtain a total CYP figure.