PEPFAR, Health System Strengthening, and Promoting Sustainability and Country Ownership

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Abstract: Evidence demonstrates that scale-up of HIV services has produced stronger health systems and, conversely, that stronger health systems were critical to the success of the HIV scale-up. Increased access to and effectiveness of HIV treatment and care programs, attention to long-term sustainability, and recognition of the importance of national governance, and country ownership of HIV programs have resulted in an increased focus on structures that compromise the broader health system. Based on a review published literature and expert opinion, the article proposes 4 key health systems strengthening issues as a means to promote sustainability and country ownership of President’s Emergency Plan for AIDS Relief and other global health initiatives. First, development partners need provide capacity building support and to recognize and align resources with national government health strategies and operational plans. Second, investments in human capital, particularly human resources for health, need to be guided by national institutions and supported to ensure the training and retention of skilled, qualified, and relevant health care providers. Third, a range of financing strategies, both new resources and improved efficiencies, need to be pursued as a means to create more fiscal space to ensure sustainable and self-reliant systems. Finally, service delivery models must adjust to recent advancements in areas of HIV prevention and treatment and aim to establish evidence-based delivery models to reduce HIV transmission rates and the overall burden of disease. The article concludes that there needs to be ongoing efforts to identify and implement strategic health systems strengthening interventions and address the inherent tension and debate over investments in health systems.

Key Words: health system strengthening, PEPFAR, HIV/AIDS, sustainability, country ownership

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BACKGROUND

A growing body of evidence shows the benefits that scale-up of HIV-related services has engendered in health systems in low-resource settings and the effect that health systems strengthening (HSS) has had on HIV and other disease-specific programs, including President’s Emergency Plan for AIDS Relief (PEPFAR); the Global Fund to Fight AIDS, Tuberculosis, and Malaria; and the World Bank’s Multi Country AIDS Program. In PEPFAR’s first phase (PEPFAR I), scale-up of HIV-related services would not have been possible without, at minimum, strengthening the health system components needed for the delivery of HIV-related services. Impact studies show that lifesaving HIV care and treatment can be successfully delivered even in low-resource settings with weak and fragmented health care delivery systems if key elements of the system are strengthened as part of the scale-up of HIV-related services.

Countries’ demand for, and major donors’ contributions to, HSS has been substantial since the implementation of PEPFAR and other HIV-related global health initiatives. The Figure illustrates PEPFAR II investments from 2009 to 2011, including national, regional, and district systems such as finance, leadership/governance, capacity building, supply chain; strategic information (SI); and laboratory (LAB). However, PEPFAR HSS contributions are actually higher given that service delivery expenditures, such as human resources for health (HRH) training, are reported outside the HSS budgetary reporting category. The proportion of PEPFAR budget for HHS from 2009 to 2011 was 10.9%, 10.0%, and 11.0%, respectively. The Global Fund also has invested in system strengthening: Its allocation to HSS increased from US $7.8 billion to $295 million in round 2 (phase 1) to a maximum of US $1.02 billion in round 9 (phase 1). In fact, it is estimated that US $7.8 billion, more than a third (36%), of the Global Fund’s total budget has been allocated to disease-specific or crosscutting HSS interventions.
As countries have expanded HIV programs during PEPFAR I, there has been increasing awareness, at the country and global level, of the critical need to identify and support strategies that integrate HIV programs within existing national health systems and structures. As a result, funding increased in areas of government and civil society capacity building, planning and SI, management, and financing of HIV programs. These goals were reflected in section 204 of the Lantos and Hyde US HIV/AIDS, TB, and Malaria Reauthorization Act of 2008, for the reauthorization of PEPFAR in 2009. The legislation underscored the US government’s role in strengthening the capacity of national and local institutions to plan, implement, and manage essential reforms of the health sector. An example is the congressional mandate to train 140,000 new health care workers. As reauthorization was occurring, PEPFAR implemented a nonbinding intragovernmental partnership framework (PF) to establish areas of collaboration for HIV prevention, care, and treatment programs with partner governments based on national priorities and implementation plans. The purpose of the PF was to align PEPFAR programs within national systems and structures and leverage contributions of the government and other donors. At the same time, the World Health Organization was promoting the need to establish national and local capacity through the lens of an HSS framework, known as 6 building blocks of the health system. Most recently, through the implementation of the US Global Health Initiative, the Obama administration identified HSS as a pillar of achieving health service delivery goals that go beyond HIV, to and population-based health outcomes including improved infant and maternal health. Each of these unprecedented steps recognized that the long-term growth and sustainability of programs would require strengthening of local institutions in areas of governance and ownership of service delivery, thus reducing their dependency on outside resources. To this end, the purpose of this article was to highlight several key HSS issues related to advancing long-term sustainability and country ownership.

DISCUSSION

This section discusses policy and programmatic issues important to advancing PEPFAR efforts to increase long-term sustainability and country ownership of programs by investing in HSS. These issues include the following:

- The importance of coordination and partnerships of global health initiatives with host governments through established national strategic plans
- Making essential investments in human capital to ensure long-term sustainability of current and future investments in health and improve key population health outcomes in areas of HIV, maternal and child health, and noncommunicable diseases (NCDs)
- The importance of increasing fiscal space to improve access to health services through innovative health financing and efficient resource allocation and program implementation
- The dynamics and planning challenges of the evolving service delivery system as it adjusts to shifts in the treatment and management of HIV disease and other NCDs.

Partnerships Through National Strategic Plans and Country Ownership

The key to developing sustainable public health and health care delivery systems for HIV and other health needs is having well-functioning governmental structures, at the
national and local levels, with strong civil society organizations as a complement. To achieve this, PEPFAR has established PFs, currently in 21 countries across 3 continents, to align PEPFAR investments with national priorities, health systems and infrastructures, and specific HIV-related outcomes. In addition, PEPFAR activities are integrated into national HIV strategies, supporting a single national treatment guideline and monitoring and evaluation framework. Both efforts illustrate PEPFAR collaborations with government and civil society priorities, strengthening of local institutions to plan and manage HIV-related programs, and leveraging of resources with other local, national, and international donors and activities.

Over the past decade and more, PEPFAR and other HIV control initiatives rightly focused on the immediate humanitarian need to quickly expand access to lifesaving medications. Less successful were PEPFAR’s efforts to address key determinants of health, such as environmental, cultural, attitudinal, and general health resources, of which all contribute to reducing the impact of HIV by addressing its root causes. Now, with PEPFAR programs expanded and matured, greater attention is being given to addressing these vulnerabilities.

To accomplish the dual goal of further on expanding access to HIV services—in 2010, 9 million people eligible for antiretroviral treatment (ART) were not using it17—while addressing the broader health determinants, financial and technical support from development partners need to align specific interventions with support for “upstream” HSS interventions, particularly governance and leadership, legislative and regulatory reforms, policy development and monitoring, and implementing programs at the subnational and local levels (A recent study found that a 1% increase in the share of public health spending lowers the under-five child mortality rate by 0.32% in countries with good governance and 0.20% in countries with average governance, and there was no improvement in countries with poor governance).18 These goals, however, can only be achieved if national governments are able to provide clear guidance on what constitutes national health problems and priorities and articulate this in a national health strategy or operational plan. The strategy needs to demonstrate a relationship between HSS interventions and improved service delivery and health outcomes for HIV and other priority health areas. It also should ensure that all stakeholders, including intraminsterial offices, regulatory bodies, civil society, and development partners, contribute to HSS in a collaborative and efficient manner. Common platforms for such an arrangement include the Sector-Wide Approach and the use of sector working groups (SWAps) provide a government and its development partners an opportunity to agree on sector priorities requiring health systems investments to ensure specific health outcomes; sector working groups are forums in which both policy and technical issues that relate to program implementation are resolved and tracked with an agreed upon set of indicators). For example, the implementation of the Sector-Wide Approach in Malawi, which began in 2004, has proven to be effective at creating coherent programmatic approach to using foreign aid, increasing funding from the government and donors, improving access to essential health services, and implementing institutional reforms. This has led to improved monitoring of procurement and drug supply chains, improved HRH management, and creation of public–private partnerships in health.19

Along with strengthening the role of government, the role and voice of civil society organizations, including private and nongovernment public institutions, must be recognized so that health planners better understand and prioritize the health needs of communities and then develop and implement an appropriate national response. Civil society input also helps planners to effectively and equitably balance the demand for service with existing public and private supply, while considering important labor market dynamics. Ultimately, effective national leadership assumes a productive and iterative dialogue between government and nongovernment counterparts to ensure access to vital services to address immediate health needs and reduce the vulnerabilities of communities through addressing key determinants of health.

Investing in Human Capital

It is widely acknowledged that the most prevalent and tenacious challenge in delivering health care services is lack of HRH. The HIV crisis elevated the HRH crisis to a new level of prominence, and the global shortage of qualified health care workers is highest in countries heavily affected by HIV: the average vacancy rates for health care workers within public health care facilities in many of these countries exceed 65%.20 The traditional remedy for this has been in-service training of existing health care workers. PEPFAR I accelerated this approach and rapidly increased the numbers of facility and community health care workers providing HIV services through in-service training events delivered by implementing partner organizations in partnership with national training institutions. The Joint Learning Initiative,21 the World Health Report 2006,22 and the creation of the Global Health Workforce Alliance23 were evidence of the recognition by the global community that the provision of basic health services requires a greater and more diverse expansion of health care workers than ever before.

PEPFAR II also has recognized the importance of HRH and established the target of training and retaining 140,000 new health care workers. PEPFAR now considers preservice education a cornerstone of stronger health systems and is working directly with medical and nursing education institutions across Africa to increase the quantity, quality, and relevance of health care workers. In tandem with existing PEPFAR investments in the preservice training areas within country PEPFAR programs, the Office of the Global AIDS Coordinator established 2 specific training initiatives as model approaches to qualify new health care workers to address HIV and other population health needs: the Medical Education Partnership Initiative (MEPI) and the Nursing/Midwifery Education Partnership Initiative (NEPI). Both MEPI and NEPI provide direct support to countries institutions, either to training institutions (MEPI) or through national government working groups (NEPI), as a strategic approach to develop, implement, and manage the scale-up of health workers. PEPFAR’s emphasis on preservice education is discussed in a recent Lancet publication.24
Although the production of new health care workers is necessary, it is not sufficient to secure the health care workforce over the long term. Government capacity needs to be strengthened to implement policies (eg, World Health Organization guidelines on retention, task shifting, and migration) and human resource practices to deploy, manage, and retain current and newly trained health professionals. Regulatory councils (and professional associations) need to ensure the ongoing competencies of these providers, opportunities for professional advancement, and compliance with scopes of practice. Global Health Initiatives, like PEPFAR, the Global Fund, and the Global AIDS Vaccine Initiative Alliance have begun to take this approach, but more must be done. Moreover, it is important to advance this approach to HRH through a multisector process led by the relevant ministries, particularly health and education, with the engagement of regulatory bodies, training institutions, and professional associations. Attention should also be paid to the dynamics of the labor market, that is, the interaction of demand and supply in determining workforce capacity needs, including skill mix, distribution, and levels of productivity, in addition to addressing population health needs.²⁵

Expanding Fiscal Space

The stark internal financing constraints faced in many African countries and other low-income contexts—together with the effects of plateauing of global resources for health—compel country stakeholders and international partners to consider how significant additional resources for health could be generated and how greater efficiencies in the use of available resources can be achieved. Indeed, many low-income countries continue to face substantial challenges in simply generating sufficient resources for a basic package of essential health services, as described in a recently published report analyzing current health spending levels in 40 African countries.²⁶ The goal of increased fiscal space is therefore to increase access to priority health services that encompasses both generating additional resources through innovative financing approaches and ensuring optimal use of available resources through efficient allocation and program implementation.

A number of innovative health financing strategies have been developed to support the expansion of HIV services within PEPFAR countries. South Africa and Namibia modified existing laws to require HIV-related services within the health insurance industry. In addition, Uganda has expanded access to PLHAs in the private voluntary insurance market, whereas other countries have mobilized greater resources through improved collection of tax revenues and engaging the private sector in providing health care services or to increase access to capital investments in health (Chile, Cote d’Ivoire, France, Madagascar, Mauritius, Niger, and South Korea joined in applying a levy on air traffic to support international HIV activities. Zimbabwe, considered one of the weakest economies in Africa, was among the first countries to augment government budgetary allocations to AIDS programs by introducing a monthly income tax from employee salaries). In low-income settings, reliance on external funds to maintain basic health provision is likely to continue even with increased uptake of innovative financing mechanisms.

In country settings of all income levels, the needs in basic health provision and priority health interventions are likely to outpace growth in internal and external financial resources. Essential to increasing access to and impact of priority health services are efficient resource allocation and program implementation. Efficiency in the use of limited resources for health requires that health resources are allocated across interventions to maximize health impact and that implementation of programs assures optimal use of available financial, infrastructure, and human resources to reach the greatest number of persons in need. A notable example of increased technical efficiency has been the sharp decline in the unit cost of providing ART for treatment of HIV, where improved drug procurement and supply chains, economies of scale in program implementation, and standardization of clinical and LAB monitoring have all contributed to extending the reach of these programs. The annual per-patient ART cost to PEPFAR has dropped from nearly $1100 early in the program to an estimated $335 in 2012.²⁷

Other promising approaches to improved technical efficiency include performance-based financing and other innovative provider payment mechanisms that reward health service providers for meeting priority program outputs and health targets. Studies have shown that the use of performance-based financing can result in improved health systems, increased motivation of providers in areas of quality and performance, and improved service delivery targets and health outcomes.²⁸ Rwanda, for example, has implemented various strategies that are intended to address both the need for increased financing and improved efficiency of service delivery, including community-based health insurance and multisector performance contracts between national and local governments.²⁹,³⁰

Continued gains in efficiency are possible and necessary, both for HIV programs specifically and health programs broadly. National, bilateral, and multilateral partners are in a position to improve efficiency through increased coordination in financing and program implementation, on-budget spending, capacity building for improved financial management, and use of performance criteria in disbursement of funds. Finally, there is a need for all partners to use economic and financial data to guide program planning and to develop systems that routinely track program expenditures and outputs to support efficient implementation.

Service Delivery and HSS

Advances in the availability of HIV-related diagnostic services and drugs increase the need to identify and retain HIV-infected individuals in treatment and care programs to prevent disease progression in the individual and further transmission in the community. Health policy makers and service delivery managers therefore need to consider the implications for HSS investments, especially the need to identify service delivery models that promote early identification and long-term client engagement through linking community and facility services and the use of information for purposes of strategic planning and continuous quality improvement.

Although there is ongoing debate about the impact of HIV programs on weak health systems in low-income countries and whether this may undermine achievement of
other priority health goals, there is evidence that PEPFAR support to developing country laboratories has created LAB platforms that expand, integrate, and strengthen the quality, timeliness, and number of tests for HIV and other diseases. There were fewer than 20 accredited laboratories in Africa in 2004; with PEPFAR support, the number of African laboratories seeking accreditation by end 2011 was around 300 (PEPFAR April 2011 data). This has been accomplished by developing and strengthening tiered LAB networks with their multiple constituent systems. In addition, PEPFAR has accelerated research in new point of care technologies (POCTs) (POCTs include point of care CD4 cell count assays, CD4 testing, and new specimen-handling methods such as dried blood spot and dried test tube sampling. POCT research has also opened up new options for other diseases like sexually transmitted infections, tuberculosis, and malaria.) that provide CD4 tests in a simpler, less costly, and faster manner at or near the site of patient care with results available within hours. Point of care technologies have proved to be “game changers” for clinical medicine by bringing care and treatment closer to HIV-infected persons, increasing access of remote communities, retaining a greater number of patients with HIV/AIDS in the health care system, and reducing time to initiation of therapy (A patient cohort followed in Mozambique showed that after ART initiation, only 21% of patients tested with PIMA - Alere Pima CD4 were lost to follow-up compared with 57% lost to follow-up who had their CD4 testing using traditional laboratory methods.). Research on simplifying LAB assays has also facilitated the development of rapid, simpler, and reliable diagnostic options for the treatment of sexually transmitted infections, tuberculosis, malaria, and other diseases in addition to HIV. These new technologies and methods, however, entail more training for peripheral-level health workers, new monitoring and evaluation methods for LAB applications and quality control at community and primary health care levels, and strategies to support and sustain the possible additional burden of testing as the numbers of HIV-positive survivors grow. A review of present strategies may also be to see how these innovations can be applied to support NCD programs like diabetes and hypertension.

Although PEPFAR and other donor programs have strengthened the capacity of national and regional procurement and distribution systems, shortfalls exist at the local level. This weakness occurs in part because of manufacturing issues such as limited availability of active ingredients, limited formularies that do not include non–HIV medicines necessary to treat other common conditions within communities (such as NCDs), challenges in distributing drugs or supplies to distant locations, and the severe shortages of adequately trained supply management staff. HSS interventions need to strengthen the supply chain for local distribution, including production related activities for a range of essential medications, in a reliable and predictable manner.

In many low-income countries, PEPFAR has enabled the delivery of effective medical services to millions of HIV-infected and HIV-affected individuals. In the portion of the HIV-infected population that is identified and linked into clinical care, outcome measures such as retention, lost to follow-up, and mother-to-child transmission rates compare favorably to the United States, as reported by Rosen et al. But too many HIV-infected individuals in low-income countries are never tested or linked into care or they are enrolled in treatment too late to mitigate economic and social impoverishment (In Lusaka Zambia, less than 3% of all HIV-infected women initiated ART during pregnancy.). Although we are on the verge of turning the tide, we are still losing the battle against HIV. There is need for PEPFAR-supported programs to adopt a more aggressive population control paradigm.

If low-income countries do not do better with prevention, all “efficiencies” achieved within their delivery systems are simply more efficient ways to commit ever-expanding resources to an interminable pandemic. The aims of care must be to diminish the community viral load and to enroll HIV-infected individuals in treatment before they become too ill to work or care for their families. To achieve these aims, aggressive efforts at community-based case finding and linking of newly identified infected patients into the care system must complement clinic-based care and treatment programs. For HIV programs that have already established effective clinic-based treatment programs, door-to-door counseling and testing that canvasses entire communities is a critical next step.

In 2010, PEPFAR convened a regional workshop in Maputo, Mozambique, to discuss innovative approaches to linking the facility sites with community programs to develop a community-based paradigm of care and for purposes of early identification and retention, particularly for individuals not yet eligible for ART. Key findings from this meeting include using of mobile technologies by community health workers to communicate with facility providers, enhancing availability of point of service diagnostics, using electronic medical records and tracking systems to record and report on clinic visits, distributing drugs (such as cotrimoxazole) by community health workers, applying a chronic disease management model to address HIV and other chronic health needs, and establishing formal relations and roles between facility and community-based programs by including community health workers as member of the interdisciplinary care team.

Finally, SI systems are needed to identify data to direct ongoing HSS investments as linked to specific service delivery goals, quality of services, and health outcomes. When PEPFAR was established, such information was rarely available. Since then, there has been a rapid expansion of information systems at the various levels of the health system: national, subnational, and clinical. However, the use of these systems to monitor programmatic activities, including quality of services, and measure the impacts of health system investments for more effective monitoring and evaluation of PEPFAR’s contributions to HIV programmatic scale-up has been inconsistent and often absent. There is limited consensus on the specific questions or methods to studying the effect of scale-up of HIV systems on health systems or vice versa. At a recent international conference held to examine the relationship between HIV programs and HSS, a series of recommendations were set forth to establish consensus on a research agenda and methods for HSS evaluations, including a recommended set of research questions, intersectoral methodology, and new research partnerships to address.
these complex questions to ensure “provision of services for major diseases like HIV/AIDS positively influence the health systems ... and reinforce efforts against all health challenges.”

Continued effort in this area is required to establish the full extent of HSS contributions in HIV and non–HIV service delivery and to measure the contributions of HSS investment in attaining national and global programmatic and service delivery goals.

CONCLUSIONS

In order for PEPFAR and other global health initiatives to support the scale-up of new prevention, treatment, and care services, while more thoroughly addressing other health issues and social determinants, HSS interventions must be focused on strategies to ensure long-term sustainability, national governance and leadership, and country ownership of HIV and non–HIV programs. Thus, it will be important to continually assess and address critical system weaknesses and design HSS intervention that promote the adoption of global health initiatives into a country’s national framework for health and evolving health systems and structures. Given the PEPFAR’s significant HSS investments, PEPFAR holds an important position in implementing global practices to advance the transition of HIV and non–HIV programs in a more sustainable and country-led direction.

This article recommends 4 HSS areas to promote sustainability and country ownership. Although these are insufficient by themselves, collectively, they constitute essential components for advancing PEPFAR’s approach in areas of program planning, human resources, financing, and service delivery. Building capacity of national and local governments and local institutions, including civil society, is a primary objective in reaching long-term sustainable solutions and structures. In addition, serious consideration must be given to the development of evidence-based health care delivery models that integrate emerging technologies and approaches to reducing HIV transmission and the overall burden of disease. Finally, in establishing these models, SI is critical in determining the effect of HSS interventions on service delivery targets and overall system goals.

Given the ongoing challenges of the HIV epidemic, and the expanding demands to address areas of NCD and other population-based health needs such as maternal and child health, PEPFAR and other global health initiatives will need to continue to recognize and respond to evolving HSS challenges at both the national, local, and service delivery level. This response will determine the effectiveness of these initiatives in establishing sustainable and country-owned solutions to the current, and emerging, health needs of communities.

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REFERENCES


