How PEPFAR’s Public-Private Partnerships Achieved Ambitious Goals, From Improving Labs To Strengthening Supply Chains

ABSTRACT The President’s Emergency Plan for AIDS Relief (PEPFAR), established in 2003, is widely recognized as one of the most ambitious and successful bilateral programs ever implemented to address a single disease. Part of the program’s success is attributable to the participation of the private sector, working in partnership with the US and local governments and implementing organizations to maximize the reach and effectiveness of every dollar spent. We examined key public-private partnerships that grew out of PEPFAR to identify features that have made them effective. For example, PEPFAR’s Supply Chain Management System took advantage of private industry’s best practices in logistics, and a partnership with the medical technology company BD (Becton, Dickinson and Company) improved laboratory systems throughout sub-Saharan Africa. We found that setting ambitious goals, enlisting both global and local partners, cultivating a culture of collaboration, careful planning, continuous monitoring and evaluation, and measuring outcomes systematically led to the most effective programs. The Office of the US Global AIDS Coordinator and PEPFAR should continue to strengthen their capacity for private-sector partnerships, learning from a decade of experience and identifying new ways to make smart investments that will make the most efficient use of taxpayer resources, expand proven interventions more rapidly, and help ensure the sustainability of key programs.
By that time, the Office of the US Global AIDS Coordinator, the policy and coordinating office in the State Department responsible for managing PEPFAR programs, had already established a track record of engaging the private sector in PEPFAR’s work. Combining the reach of the public sector with the speed and unique capabilities of the private sector, the office drew not only on the financial resources of businesses, but also on the knowledge and skills of the private sector in such areas as logistics and supply-chain management, research and manufacturing, and marketing and communications.

PEPFAR’s agreements with the private sector reflected a diversity of structures and financial relationships, typically involving a 50–50 joint investment by the US government and the private-sector partner. In addition, the partner typically contributed expertise and other in-kind resources, such as training, tailored to the specific challenges in specific countries.

By engaging with the private sector, the Office of the US Global AIDS Coordinator was able to create a portfolio of global partnerships across the spectrum of PEPFAR activities. At the same time, the office guided other federal agencies involved in implementing PEPFAR’s many HIV/AIDS programs and provided training and tools to country offices. It thus expanded the opportunities for private-sector collaboration.

The Office of the US Global AIDS Coordinator developed a mechanism to take advantage of taxpayer resources to attract additional investments, expand proven interventions rapidly, and help ensure the sustainability of key programs. Public-private partnerships also enabled PEPFAR to reach new target populations—for instance, through workplace programs—and build local prevention and treatment capacity. Under the successive leadership of Ambassadors Randall Tobias, Mark Dybul, and Eric Goosby, the Office of the US Global AIDS Coordinator and PEPFAR embraced the potential of partnerships to extend what their own team could accomplish by involving a wide range of private-sector actors to help achieve PEPFAR’s clearly targeted goals in HIV prevention, treatment, and care.

The use of public-private partnerships is part of a broader trend in global health and development practice that began in the 1980s and became increasingly prevalent around 2000. There are numerous examples of the new interest in and attention to how public and private entities could combine their resources and expertise to implement programs that would add up to more than the sum of the parts.

The Merck Mectizan Donation Program and the Global Alliance to Eliminate Lymphatic Filariasis delivered medicines to combat onchocerciasis and lymphatic filariasis, reaching tens of millions of people each year in countries where these diseases were endemic. The GAVI Alliance, formerly known as the Global Alliance for Vaccines and Immunization, and the Global Fund to Fight AIDS, Tuberculosis, and Malaria transformed the fight against major infectious diseases throughout the developing world. The US government’s Global Development Alliance and Millennium Challenge Corporation constituted innovative approaches to foreign assistance, focusing the complementary skills of public and private partners on specific countries’ development needs.

**Partnerships For Prevention, Treatment, And Care**

PEPFAR has made creative and extensive use of a wide range of public-private partnerships to expand interventions, integrate programs fully into country plans, and complement the resources and skills that the US government and its country partners bring to bear on program implementation. The mechanisms employed have ranged from broad-based, complex collaborations that address such fundamental issues as new approaches to HIV prevention to targeted initiatives that improve specific technical issues such as the safety of the blood supply. Recently there have also been efforts to develop partnerships building on the PEPFAR platform to address related issues such as simultaneous infection with HIV and tuberculosis and breast and cervical cancers—two of the leading killers of women.

Of course, not all partnerships are created equal, and they vary in governance structure, scale, geographical reach, and public health impact. As in any ambitious and innovative initiative, not all of the partnership experiments worked. However, most did, thus expanding the scope of PEPFAR’s impact. Some salient examples are included in the online Appendix. We explore three of these cases—Together for Girls, the Supply Chain Management System, and laboratory strengthening—in detail below, to illustrate the value of private-sector partnerships across the spectrum of prevention, treatment, and care and support.

**Prevention**

Together for Girls is a unique partnership including the private sector, UN agencies, and governments. The partnership is designed to prevent and reduce sexual violence and its consequences for children, especially girls. Rooted in gender discrimination and inequality, sexual violence against girls not only is a human rights violation, but it also leads to long-term consequences in physical and mental...
health, as well as in the social functioning of the affected girls and their families and communities.

Together for Girls uses three approaches. First, it conducts national surveys, led by the national government with technical support from partners such as the US Centers for Disease Control and Prevention and UNICEF, to document the magnitude and impact of sexual violence, particularly directed against girls. The resulting data are used to engage government leaders, key nongovernmental organizations, and donors in a coordinated national action plan. Second, Together for Girls supports evidence-based interventions developed by a multisector task force in a given country to address issues identified through the surveys. Third, it uses global advocacy and public awareness efforts to draw attention to the problem and promote evidence-based solutions.

PEPFAR joined this public-private partnership in 2010,6 in keeping with its understanding that gender inequalities and sexual violence help spread HIV infection. Other partners are the Centers for Disease Control and Prevention; the United Nations Children’s Fund (UNICEF); the Joint United Nations Programme on HIV/AIDS (UNAIDS); UN Women; the UN Population Fund; the World Health Organization; the US Department of State’s Office of Global Women’s Issues; the Nduna Foundation, a New York-based foundation that provides assistance to children in poor countries; the CDC Foundation, a non-profit enterprise that creates programs with the Centers for Disease Control and Prevention for fighting threats to health; BD; and Grupo ABC, Brazil’s largest communication group.8 Grupo ABC, for example, provided technical and communication support, including establishing a website that enables others to learn about the problem and responses to it.

Country data concerning sexual violence against girls are typically very sensitive. However, because Together for Girls engages governments from the outset as leaders of high-level task forces to direct surveys and follow-up, there is strong local ownership of the data, which in turn motivates governments to take immediate action.

For instance, in August 2011, when the government of Tanzania released its data, it simultaneously launched a program called the National Response to Violence against Children. This plan outlined a multisectoral approach to addressing the problem, with seven ministries committing to specific priority responses within their purview. Examples include commitments by the Ministry of Justice to take steps to improve the enforcement of the existing Law of Child Act and by the Ministry of Education to establish systems to address abuse in schools and to revisit the policy of corporal punishment in schools.10 In addition, Together for Girls partners in Tanzania are also working to ensure that their support through ongoing programs, such as PEPFAR’s work on gender-based violence and with orphans and vulnerable children, contributes to the national response. In Swaziland, survey results directly informed policy and prevention measures, including a national education campaign to expand awareness and prevention of sexual violence against children, the establishment of the first child-friendly court with safe spaces for children’s testimony, and new police units responsible for investigating sexual violence against minors. The recent development of the Child Welfare Bill and the Domestic Violence and Sexual Offenses Bill is a direct result of high-level engagement following the survey.

TREATMENT PEPFAR’s Supply Chain Management System,11 the second case, was established early in PEPFAR’s history to take advantage of private-sector best practices in logistics and supply-chain management. The goal was to change how medicines and other health supplies were delivered to the millions of people supported by PEPFAR. The challenges of delivering dozens of different antiretroviral drugs reliably and in sufficient quantities to many remote areas in sub-Saharan Africa and other parts of the developing world were daunting. This alliance gave PEPFAR a way to help shape the global dynamics of the antiretroviral drug market.

The Partnership for Supply Chain Management, a legal entity established by JSI Research and Training Institute and Management Sciences for Health that manages PEPFAR’s Supply Chain Management System, brought together a network of commercial private-sector organizations, nonprofits, academic institutions, and faith-based organizations with a wide range of capabilities to expand and strengthen global supply chains for antiretrovirals, HIV test kits, laboratory supplies, and other products. For instance, UPS, the lead logistics provider for the partnership, used its existing supply channels to achieve cost savings through more efficient customs clearing and freight forwarding procedures. It also provided tracking services for shipments from the manufacturer to the final destination.

Another member of the partnership is Voxiva, a company that uses social marketing and information technologies to deliver interactive mobile health services. It provided its systems integration expertise and technical assistance in developing and installing the management information systems on which the Supply Chain
Management System relies to manage and coordinate projects.

By working together and drawing on complementary skills, Supply Chain Management System partners implemented new approaches to forecasting and demand planning, warehousing and distribution, freight and logistics, quality assurance, controlling inventories so that products were used before reaching their expiration dates, and managing costs through pooled procurement.12,13

The impact on the efficiency of PEPFAR’s procurement practices has been dramatic. When President George W. Bush’s administration decided in May 2004 to make generic versions of antiretrovirals eligible for use in PEPFAR countries, even if the brand-name versions were still under patent protection in the United States, the Supply Chain Management System was able to extend PEPFAR’s resources by procuring generic versions of lifesaving drugs at reduced costs.14

By 2008 the proportion of generic packs of antiretroviral medicines purchased by PEPFAR was nearly 90 percent, up from about 15 percent in 2005, with estimated cumulative savings through generic drug purchases of more than $323 million.15 By 2012 the savings through the system’s purchases of generic antiretrovirals was estimated to be $1.087 billion. At the same time, the average cost to PEPFAR for treating an HIV patient had declined from $1,100 per year to about $335 per year.16,17

**CARE AND SUPPORT** The third case is PEPFAR’s laboratory systems strengthening initiative. Access to necessary tests to support the diagnosis and treatment of HIV/AIDS and tuberculosis—including counts of CD4+ lymphocytes, white blood cells involved in the immune system’s defenses against infections; measurements of viral load; tuberculosis cultures; and testing for drug resistance—lagged behind the availability of antiretroviral treatment as PEPFAR worked with countries in its early years. Because of limitations in the health systems of many developing countries, laboratory capacity and trained health workers were often lacking, as were national standards and systems for laboratory accreditation, quality control, logistics, and technical support.

This meant that laboratory tests that were a routine part of HIV care and treatment in developed countries were unavailable to many people in developing countries, even as access to antiretroviral treatment was expanded. Without access to laboratory testing, physicians were not always able to manage treatment effectively, to avoid drug toxicities and the early onset of drug resistance.18,19

To address these issues, PEPFAR teamed up with BD. Based on its experience with clinical and diagnostic practices around the world, BD brought significant technical expertise to PEPFAR’s initiative. In October 2007 PEPFAR, BD, the Centers for Disease Control and Prevention, national ministries of health, national reference laboratories (centralized facilities that perform standardized clinical and diagnostic tests on samples from networks of medical facilities), and other implementing partners launched a public–private partnership to improve laboratory systems and services in eight African countries that were severely affected by HIV/AIDS and tuberculosis.

With a combined commitment by BD and PEPFAR of $18 million over five years, half from PEPFAR and half from BD (the majority in the form of in-kind technical training services), this initiative focused on improving integrated laboratory systems and the range and quality of the services they provided; providing training on the appropriate use of new technologies; developing quality control and quality assurance guidelines and tools for hematology, chemistry, rapid HIV testing (to ascertain whether a person is HIV-positive), and CD4+ testing (to measure how immunocompromised an infected person has become); strengthening tuberculosis reference laboratories as training sites; and improving access to tuberculosis diagnostics.

By applying BD’s knowledge, technology, and resources, the partnership is strengthening the laboratory infrastructure and skills of the health workers in sub-Saharan Africa. As a result, diagnosis of such challenging conditions as multidrug-resistant TB, patient management, and treatment outcomes are being improved.20–22

The initiative has been launched to date in four countries—Uganda, Ethiopia, Mozambique, and South Africa—with training curricula and efforts targeted to the needs of each country. In Uganda, in conjunction with the Centers for Disease Control and Prevention and the Ministry of Health and other local organizations, the partnership trained 120 laboratory workers and improved quality management services in laboratories serving nearly 100,000 patients receiving antiretroviral therapy (Renuka Gadde, vice president for global health, BD, personal communication, May 31, 2012). Program managers used geographic information system technology to map 702 health care centers across Uganda. The mapping enabled health care workers at these centers to connect with appropriate reference laboratories. Thus, clinical samples from patients infected with HIV and tuberculosis could be forwarded to these labs, so that the samples could be tested efficiently and accurately.

Efforts in Ethiopia, Mozambique, and South
Lessons Learned
The examples noted above are just a few of the many public-private partnerships that PEPFAR has created to help address the public health challenges faced at the country level. What lessons have been learned from these experiences over the past decade? We think the following six are critical.

**Careful Planning** Each public-private partnership must establish well-defined objectives; create mutual accountability; develop a clear understanding of what resources and capabilities each partner brings to the task; and have regular, inclusive communications among all of the partners to avoid misunderstandings and overcome bottlenecks. The importance of these practices is clear from such examples as Together for Girls and the Supply Chain Management System, which involve dozens of partners at global and local levels and require complex coordination and communication to achieve progress.

Good intentions alone are not enough. Active, astute, and realistic management of the relationships involved differentiates successful partnerships that make a real difference from others that fail to meet the sometimes idealistic expectations with which the partners began. Working together builds trust and leads to more resilient and effective partnerships.23–27

**Close Monitoring** PEPFAR’s public-private partnerships have often addressed difficult challenges in expanding the response to HIV/AIDS in partner countries. The Partnership for Supply Chain Management and its Supply Chain Management System have transformed the global supply chains for antiretroviral treatment, bringing a level of discipline and reliability that seemed impossible in the early stages of expansion of antiretroviral treatment, with dramatic gains in efficiency that have lowered PEPFAR’s average cost of treatment by nearly an order of magnitude. Together for Girls is tackling behavior change with respect to gender-based violence—a pervasive problem that has serious implications for HIV prevention and constitutes one of the most intractable challenges of the epidemic.

To ensure that the global health community can learn from the experience of these and other partnerships, and apply the lessons learned from them through PEPFAR or other initiatives, it is important to bring the best research capabilities to bear on understanding and assessing what works and what does not. PEPFAR has taken a thorough and sophisticated approach to monitoring and evaluation and to developing new perspectives in how to improve program implementation (by promoting the systematic adoption of proven treatments and other interventions in routine practice) so that the resources invested achieve the maximum impact on health outcomes.28–31

**Building a Partnership Culture** Partnerships work, and partnerships are work. To attain long-term success, it is important to design sustainability into the process early on by focusing on key elements of a partnership culture. A partnership culture is cultivated by establishing common goals, building trust between the partners based on the integrity of the individuals involved and their organizations, ensuring that each partner expresses appreciation for the contributions of the other partners, and most importantly, by taking pleasure in working together to improve the human condition. For example, in Together for Girls, a major factor motivating the partners to tackle such a challenging issue was the knowledge that their work responds to a fundamental violation of the human rights of children, while also addressing a significant underlying source of public health problems. Other elements of a successful partnership culture include cultivating key talent—people with the instincts and sensibilities for collaboration who can combine insights from different sectors in productive ways—and ensuring that incentives are aligned to bring complementary partners together to meet ambitious goals, fostering the necessary interactions and collaboration among the diversity of individuals and institutions involved.

For example, in Uganda, the Laboratory System Strengthening Partnership was implemented through collaboration between a company (BD), the US government via PEPFAR, the Ugandan government via the Ministry of Health, and local partners such as the Infectious Diseases Institute in Kampala. For the people working on this collaboration from BD, the incentive was the privilege of using their expertise to help strengthen laboratory capacity in developing countries—using their know-how to do good in the world. For PEPFAR, the incentive was to build local in-country capacity, which is central to its overall strategy, and also to ensure that appropriate diagnostic tests would be performed effectively, which aids efficiency in the use of
antiretrovirals and other therapies. For the Ministry of Health, the incentive was to increase the skills of its laboratory workforce. For the Infectious Diseases Institute, the incentive was funding for the training site and services, and furthering its mission to advance training of African health professionals.

In addition to having the right people and supporting them in the right way, a focus on developing cross-sectoral networks will help build the connections that enable innovations by working across boundaries. PEPFAR’s experience to date clearly demonstrates the value of a partnership culture and the fact that building on that experience will be a smart investment.12,31

**REALIZING PARTNERSHIPS ARE LOCAL** Public-private partnerships ultimately stand or fall on their ability to marshal partners on the ground to deliver services and interventions in a way that meets the needs of local populations and supports the objectives of national governments. Nearly 90 percent of PEPFAR’s implementing partners are local.34 The ability to build a sustainable response to the HIV/AIDS epidemic depends on creating local capacity to manage the treatment, care, and support of people in partner countries and on cultivating complementary sources of financial and technical support to ensure the long-term viability of the programs that PEPFAR has implemented so effectively to date.

Achieving this capacity will entail a shift on PEPFAR’s part to a more systematic use of public-private partnerships at the country level in planning, managing, and financing the implementation of national HIV/AIDS strategies. There are encouraging signs that PEPFAR is building on its experience and using the partnership frameworks with country partners as an opportunity to put these plans for shared responsibility in place more broadly, as part of the natural progression toward country ownership and leadership. South Africa is an early example of efforts to move the center of gravity from collaboration between local implementing partners and the US government to collaboration between the implementing partners and the national government.35–37

Although some of the early experiments in public-private partnerships were led by PEPFAR’s headquarters staff, partners at the national level—both public and private—have shown a willingness to embrace this new way of working as projects prove their utility in the field. As new opportunities arise, PEPFAR will continue to build its network of partner organizations, not only among local nongovernmental organizations, but also among businesses, with a concomitant impact on local economies. This is one of the important ways in which increasingly local ownership of public-private partnerships will help lead to sustainability for PEPFAR programs.

**MEASURING RESULTS** Unless partnerships have a clear monitoring and evaluation framework from the outset, it will be difficult to establish what impact they have had on population health, much less understand what worked well so that it can be adapted to other contexts. Several PEPFAR partnerships are still in relatively early stages, which means that solid evidence of their impacts is not yet available. The Supply Chain Management System has the clearest set of quantitative metrics.15

In other cases, particularly in prevention projects like Together for Girls, which deals with more complex problems of behavior change, the appropriate metrics may be more qualitative or a mix of qualitative and quantitative measures. But what is important is for each partnership to agree on a monitoring and evaluation framework, establish baseline measures, and allocate adequate resources and management attention to tracking progress along the way.

PEPFAR has paid particular attention to evaluation research, using economic and financial data to improve the efficiency and impact of its programs.38 Not only are these data important in project management and reporting to constituents, but also their use is the best way to ensure the optimal use of resources. More important, rigorous impact evaluation can inform action, providing guidance on how to improve implementation and achieve more with the resources available. It also helps others learn from program experience, emulating success and avoiding costly mistakes.39

**BEING AMBITIOUS** The PEPFAR experience with public-private partnerships validates the idea that partnerships have real power to accomplish bold goals. Potential partners are often surprised when they approach other organizations to collaborate. It is not unusual for people to respond enthusiastically and to encourage planners to aim higher than they originally thought possible.

As collaborations develop, government and private-sector partners alike are often impressed by the capabilities of their counterparts and how willing they are to work together to accomplish more than any partner could do on its own. A good example of this is seen in the PEPFAR and BD laboratory strengthening partnership. And in more complex partnerships, as the number of participants grows, there is a potential for friendly competition among the collaborators to lead the partnership to push for more ambitious targets, thus leveraging collective contributions to produce even better outcomes.
Public-private partnerships have been a critical element of PEPFAR’s long-term strategy to build the capacity of health workers and the health infrastructure in focus countries, leverage available resources to attract additional investments, and develop innovative solutions to implementation challenges. The experience of the Office of the US Global AIDS Coordinator and PEPFAR since 2003 has shown that they have been willing to embrace ambitious partnerships and break new ground in how the US government collaborates with the private sector and country partners. That leadership has been central to PEPFAR’s success.

In the coming years, PEPFAR should continue to broaden its capacity for private-sector partnerships, learning from its first decade of experience and identifying new ways to make smart investments that will deliver even more value for money in such areas as integrating the private sector into health service delivery, increasing the supply of trained health workers, expanding workplace programs for HIV prevention and treatment, and integrating strategies that address the health needs of women and children, such as reducing gender-based violence, into the entire spectrum of PEPFAR’s activities at the country level.40

As Ambassador Eric Goosby, the US Global AIDS Coordinator, observed in December 2011, “We must expand the impact of our programs by increasing the coverage of our high-impact programs. And we must use the smartest possible strategies to apply our funding as effectively as possible.”38 The examples presented above demonstrate that public-private partnerships have helped PEPFAR accomplish both goals, while also improving the lives of millions of people in the developing world living with and affected by HIV/AIDS. ■

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NOTES

2 Our focus is on PEPFAR’s relationships with private, for-profit businesses. PEPFAR’s implementation has been managed through an extensive network of partnerships with not-for-profit nongovernmental organizations, faith-based organizations, foundations, academic institutions, and professional associations at the country level, which are listed in the financial data provided on country-level obligations and outlays on PEPFAR’s website, http://www.pepfar.gov
7 To access the Appendix, click on the Appendix link in the box to the right of the article online.
SCMS_Content/community/Library/resources/scms_3_year_report_web(1).pdf

14 Food and Drug Administration. International programs: approved and tentatively approved antiretrovirals in association with the President’s Emergency Plan [Internet]. Silver Spring (MD): FDA; [page last updated 2012 May 31; cited 2012 Jun 12]. Available from: http://www.fda.gov/InternationalPrograms/FDALevelThreeBilateralAgreementsForeignOffices/AsiaAndAfrica/ucm197311.htm


32 These elements of building a successful and sustainable culture of innovation through public-private partnerships are suggested by the work of Michael Porter and others in analyzing factors critical for the success of innovation clusters in regional economic development. See Porter ME. The competitive advantage of nations. New York (NY): Free Press; 1990.


ABOUT THE AUTHORS: JEFFREY L. STURCHIO & GARY M. COHEN

In this month’s *Health Affairs*, Jeffrey Sturchio and Gary Cohen discuss the value of key public-private partnerships that grew out of the President’s Emergency Plan for AIDS Relief (PEPFAR). Examining three of these partnerships—a program to combat sexual violence against girls, PEPFAR’s Supply Chain Management System, and a partnership with the medical technology company BD (Becton, Dickinson and Company) to improve laboratory systems throughout sub-Saharan Africa—they found that setting ambitious goals, continuous monitoring and evaluation, and measuring outcomes systematically led to effective programs that could be built on as PEPFAR moves forward.

Sturchio is senior partner at Rabin Martin, a global health strategy consulting firm. Before joining Rabin Martin, he was the president and CEO of the Global Health Council, an alliance of public health organizations and professionals.

Sturchio is also currently a visiting scholar at the Institute for Applied Economics, Global Health, and the Study of Business Enterprise at the Johns Hopkins University; a senior associate of the Global Health Policy Center at the Center for Strategic and International Studies; a member of the Global Agenda Council on Precision Medicine of the World Economic Forum; a principal of the Modernizing Foreign Assistance Network; a Fellow of the American Association for the Advancement of Science; and a member of the Council on Foreign Relations.

Additionally, Sturchio serves on the boards of numerous groups, including the BroadReach Institute for Training and Education; the US Pharmacopeia; and the Museum of AIDS in Africa. He earned a doctorate and a master’s degree in the history and sociology of science from the University of Pennsylvania.

Gary M. Cohen is executive vice president of BD; board chair of the CDC Foundation; and a board director of the Perrigo Company, the US Fund for UNICEF, GBHealth and the Accordia Global Health Foundation. He also serves on the UN Commission on Life Saving Commodities for Women and Children and as an adviser to the Clinton Global Initiative. He is the founder of Together for Girls. He earned an MBA from the Rutgers School of Business, and previously served on the university’s Board of Trustees.