



Building Prosperity, Stability, and Security Through Strategic Health Diplomacy: A Study of 15 Years of PEPFAR

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4 Executive Summary

7 Introduction: Understanding Strategic Health Diplomacy for a Changing World

9 Background on PEPFAR's Evolution and Impacts

9 Evolution in PEPFAR's Strategy and Way of Doing Business

12 Public Health Impacts of PEPFAR

15 A Deeper Understanding of Strategic Health Diplomacy in the Context of PEPFAR

16 Impacts of Strategic Health Diplomacy

Socioeconomic Development

Promoting Positive Public Opinion of the United States Around the World

Improved Governance, Stability, and Civil Society Engagement

Enhanced Diplomatic Engagement

27 PEPFAR and Ebola: Building Blocks for Global Health Security

31 The Way Forward

34 Appendix A: Methodology

35 Endnotes

Executive Summary

As outlined in our 2015 report, the theory of strategic health diplomacy (SHD) is that investments in health programs have the potential not only to have extraordinary positive impacts on health, but also to advance key strategic and foreign policy objectives. The President’s Emergency Plan for AIDS Relief (PEPFAR) program—launched in 2003 by President George W. Bush and a bipartisan group of legislators in the form of a groundbreaking bill that provided \$15 billion in emergency funding for antiretroviral treatment, care for orphans, and HIV transmission prevention—provides an exceptional example of strategic health diplomacy.

With two bipartisan reauthorizations and 15 years of experience, PEPFAR’s performance has set a new standard for the scale and ambitions of global health aid, by proving that strategic investments can change the course of one of the worst epidemics the world has ever encountered. Working closely with partner countries and the Global Fund, PEPFAR is providing support to the most vulnerable and, in many cases, the most productive segments of some of the poorest societies in the world. It is, as President George W. Bush said, “a work of mercy. . .” that now supports over 14 million people on life-saving treatment and has enabled 2.2 million babies of HIV-positive mothers to be born free of HIV.^{1,2}

PEPFAR has evolved rapidly to stay ahead of a dynamic HIV pandemic and is now working towards the long-term goals of achieving epidemic control and ending AIDS as a public health threat. To achieve these goals, the program has:

- Embraced the power of detailed data that allows for efficient and effective targeting of program investments;
- Accelerated the use of new treatment and prevention technologies; and
- Developed a highly transparent and collaborative approach to its planning and implementation, resulting in greatly enhanced program performance, accountability, and efficiency, even in an environment of flat funding.

We believe that the SHD effects of PEPFAR are derived from the six attributes shown in the table below.

ATTRIBUTES OF SUCCESSFUL SHD PROGRAMS	PEPFAR
Clearly defined goals	✓
Real need, visible impacts	✓
Global goals, local focus	✓
Long-term commitment	✓
Capacity-building	✓
Transparency	✓

BROADER EFFECTS OF PEPFAR AND SHD

Our analysis shows that over PEPFAR’s 15 years, it has had broader effects including improved:

- Socioeconomic development;
- Public opinion toward the United States;
- Governance, stability and civil society engagement; and
- Diplomatic engagement with the United States.

Together, these broader effects, along with the health impacts of PEPFAR, derive mutual benefit for U.S. foreign policy and security objectives and our partner countries.



Socioeconomic Development

Although the response to the HIV epidemic faces many challenges, including a burgeoning youth population at high risk for HIV, PEPFAR has repeatedly demonstrated its ability to address health challenges and create broader benefits for the countries where it invests most intensely. One of the problems is that the epidemic exacerbates preexisting socioeconomic problems by eroding household and labor force productivity, which reduces economic growth rates by an estimated two to four percent.³ PEPFAR's programs help to restore the economic productivity of those infected or affected by HIV, and to protect families, communities, and societies from destabilization.

As a result, we find that countries with higher PEPFAR investment have had greater growth in worker productivity and economic development than other countries. Population-based increases in employment have also been correlated with greater treatment access supported by PEPFAR. PEPFAR has, therefore, been critical to the restoration of economic growth in many of the countries hardest hit by HIV, and supports their development as U.S. trading partners.

Public Opinion

Through a series of new analyses, we find that PEPFAR investments have been strongly associated with improved perceptions of the United States throughout the world.⁴ The program's positive impact on public opinion has been sustained through 2016 (the latest date that data was available).^{5,6}

Foreign public opinion of the United States has important implications for everything from our country's national security and ability to work with allies, to our trade relationships, to our ability to lead and respond to disease outbreaks and secure cooperation with development goals.

Governance, Stability, and Civil Society Engagement

We also find that a higher level of PEPFAR funding in a country is associated with greater improvements in World Bank Indicators of governance, including:

- Government effectiveness;
- Regulatory quality; and
- Rule of law.

These positive findings on PEPFAR's effects on governance are complemented by recent research demonstrating that the highest per capita spending by the United States on health aid was associated with a large and immediate decline in the level of state fragility, which directly impacts U.S. national security interests.^{7,8}

In the case of the HIV epidemic, one of the most destabilizing forces was the loss of millions of parents, and the explosion of orphan-hood. We find that countries where PEPFAR invested the most experienced the greatest declines in orphan-hood, likely because of greater access to lifesaving treatment and related care. Along with the care that PEPFAR provides for those orphaned by AIDS, we expect that these investments have had substantial effects on bolstering family, community and perhaps societal stability.

Diplomatic Engagement

Diplomatic engagement is a fundamental element of U.S. foreign policy, and has been a critical, if under-recognized, feature of the PEPFAR program from the start. Government-to-government engagement focused on addressing HIV often strengthens relationships and builds the capacity for U.S. ambassadors to address other, more contentious issues, such as human rights for marginalized populations and military readiness in regions affected by terrorist activities.

We conducted 15 in-depth interviews with U.S. ambassadors to deepen our understanding of PEPFAR's effects on diplomacy. These interviews highlight the ways in which PEPFAR has supported this broader work. PEPFAR has, for example, enabled much greater U.S. engagement with more diverse and broader swaths of society in partner countries, helped to build and strengthen key relationships, and supported further development of governance and rule of law in partner countries. The program has also been successful in encouraging governments to invest much more substantially in their own HIV and broader health responses, which is key to long-term sustainability of the impacts of U.S. aid.

As an additional analysis, our report also explores PEPFAR’s role in the response to the 2014 Ebola outbreaks—a less-explored lens through which to view the broader impacts of the program. While the role of capacities developed through other development efforts have been well documented, the role of PEPFAR funding has received less attention.⁹ We find that long-term PEPFAR investment in laboratory capacity-building in Nigeria and Uganda has repeatedly worked to prevent and respond to Ebola, including in the 2014 West Africa outbreaks, in ways that were distinct from countries with little or no PEPFAR investment. Though PEPFAR was by no means the only investment in the fight against Ebola, the program played a critical role in building the foundation for epidemic outbreak response.

WAY FORWARD

A renewed examination of the wide-ranging impacts of PEPFAR has once again demonstrated that U.S. investment in this vital program not only benefits the countries it serves, but provides an exceptional example of SHD. We find that SHD has the potential to advance each of the four pillars of U.S. national security identified by the White House:

- Protecting the American people, the homeland, and the American way of life;
- Promoting American prosperity;
- Preserving peace through strength; and
- Advancing American influence.

We strongly encourage policymakers to look at additional opportunities to engage in strategic health diplomacy to secure U.S. interests across the globe. We suggest evaluating numerous other targets for their potential as SHD initiatives, including hepatitis B, hepatitis C, non-communicable diseases, and cervical cancer. We believe there are three main criteria that should be considered when considering and prioritizing these investments:

- The prevalence or the rapidity of epidemic growth;
- Its treatment potential, or the potential for containment through prevention strategies; and
- The strategic value of stricken areas.

We also believe that there is tremendous potential to build even greater goodwill, stability, and security through prioritized investments in PEPFAR. One of the key elements of success we have documented is sufficient funding to accomplish the mission. While PEPFAR has become a far more efficient and effective program, achieving ever-improving results even in an environment of flat funding, the program’s ability to continue expansion under current funding levels—including advancing the goal of epidemic control—may be waning. This represents a threat for the strategic impact of the program going forward and, we believe, indicates strongly that the United States must remain committed to robust investments in PEPFAR.



Source: Nikki Smith



Introduction: Understanding Strategic Health Diplomacy for a Changing World

Strategic health diplomacy (SHD) is the idea that when national governments do good abroad by actively working to improve public health, they may also further their own foreign policy agenda.¹⁰ As we originally argued in a 2015 paper, *The Case for Strategic Health Diplomacy: A Study of PEPFAR*, the President’s Emergency Plan for AIDS Relief (PEPFAR) is an exceptional example of SHD. We are now revisiting this argument to examine whether, in light of new data, recent epidemics, and a changing national security landscape, PEPFAR is still producing both global health and concrete national security benefits for the United States.

PEPFAR—which celebrated its 15th anniversary this May—began as an emergency response to an epidemic that was tearing into the fabric of societies and leading to skyrocketing death rates among infants, children, and adults in their most productive years. In July 2000, the U.N. Security Council noted these societal effects in a resolution that read, “The HIV/AIDS pandemic, if unchecked, may pose a risk to stability and security.”¹¹ Following the 9/11 attacks, the United States and the world became even more aware of the risks of fragile and failed states on worldwide peace and security.

In 2003, President George W. Bush and a bipartisan group of legislators launched PEPFAR, a groundbreaking bill that provided \$15 billion in emergency funding for antiretroviral treatment, care for orphans, and developing effective prevention interventions. In 2018, PEPFAR represents the largest investment any country has ever made in combating a single disease. Additionally, the United States, along with the World Health Organization (WHO) and the Group of Eight, is a founding member and the largest contributor to the Global Fund to Fight AIDS, Tuberculosis, and Malaria (or the “Global Fund”), a public private partnership founded in 2002 to leverage multi-lateral resources to fight these infectious epidemics. PEPFAR and the Global Fund were designed from the start to be complementary, and to work together to help governments and civil society build the strongest possible responses to HIV.

The Case for Strategic Health Diplomacy examined PEPFAR as an example of SHD. We argued that “ensuring global health abroad is vital to America’s own objectives in three additional ways above the immediate health benefits: (1) producing goodwill so that countries will collaborate with the United States on strategic objectives; (2) strengthening economies for viable trade partnerships; and (3) building state capacity to produce stable countries, which helps to mitigate chaos, war, and disruption.”¹⁰

Reviewing data from PEPFAR and non-PEPFAR countries, we found that, beyond PEPFAR’s extraordinary health benefits, the program has had a wide range of positive secondary effects, including socioeconomic development, improvements in governance, and decreased orphan-hood.¹⁰ Others also found that the level of PEPFAR investment was associated with positive public opinions of the United States in polling data from foreign countries.⁴ Finally, we identified “lessons learned” to help explain why PEPFAR, in particular, works so well. For example, PEPFAR focuses on clearly defined goals, real need, visible impact, and local focus, including capacity building, and it is built on long-term commitment and transparency (Figure 1).

Figure 1. Attributes of Successful SHD Programs

ATTRIBUTES OF SUCCESSFUL SHD PROGRAMS	PEPFAR
Clearly defined goals	✓
Real need, visible impacts	✓
Global goals, local focus	✓
Long-term commitment	✓
Capacity-building	✓
Transparency	✓

Since the release of the 2015 report, the world has seen an extraordinary pace of geopolitical change that has only underscored the need for SHD. Conflicts have intensified in the Middle East and North Africa, migration has increased, and economies have faced uneven growth. Non-communicable diseases, including cardiovascular diseases, cancers, and diabetes, are accelerating in low and middle-income countries, spurred in part by lifestyle changes, obesity, tobacco use and other risk factors. Meanwhile, three West African countries faced the worst-ever recorded Ebola epidemics, which for the first time spread to U.S. shores, and Zika virus, Middle East Respiratory Syndrome, and Chikungunya virus outbreaks threaten new areas of the world.

In the past several years, the world has notched major new advances against HIV, including declines in HIV/AIDS-related deaths by nearly 50 percent since 2004 and decreasing numbers of new infections in many, although not all, countries.¹² In 2015, the United States and other U.N. member nations committed to a plan to end the HIV epidemic as a public health threat by 2030.¹³ Yet, major challenges remain, especially given the emergence of HIV drug resistance and the rapid growth of the youth population at high risk of HIV.¹⁴

The Bush, Obama, and Trump administrations have recognized the importance of addressing these types of global health threats. This recognition was reflected in the Trump administration's 2018 Threat Assessment,¹⁵ in which Director of National Intelligence Dan R. Coats noted:

The frequency and diversity of disease outbreaks have increased at a steady rate since 1980, probably fueled by population growth, travel and trade patterns, and rapid urbanization. Ongoing global epidemics of HIV/AIDS, malaria, and tuberculosis continue to kill millions of people annually.

The increase in frequency and diversity of reported disease outbreaks—such as dengue and Zika—probably will continue through 2018, including the potential for a severe global health emergency that could lead to major economic and societal disruptions, strain governmental and international resources, and increase calls on the United States for support.

Accordingly, and with strong bipartisan support, the United States has continued to take a leadership position in combating global health threats through PEPFAR, the Global Fund, the President's Malaria Initiative, and the Global Health Security Agenda. Much of this work is led by the belief that fighting these epidemics at their points of origin is smarter than waiting for them to grow and threaten U.S. shores.

These initiatives, which collectively account for less than one-quarter of one percent of the federal budget, are also closely aligned with the concept of SHD, which has gained traction since the 2015 report. As reflected in the Trump administration's 2017 National Security Strategy,¹⁶

Some of the greatest triumphs of American statecraft resulted from helping fragile and developing countries become successful societies. These successes, in turn, created profitable markets for American businesses, allies to help achieve favorable regional balances of power, and coalition partners to share burdens and address a variety of problems around the world. Over time, the United States has helped create a network of states that advance our common interests and values.

SHD, as reflected in a well-executed global health program, has the potential to advance each of the four pillars of U.S. national security that the White House identified: (1) protecting the American people, the homeland, and the American way of life; (2) promoting American prosperity; (3) preserving peace through strength; and (4) advancing American influence.

PEPFAR turned 15 this year, at a time of new political leadership, geopolitical change, and debates about U.S. priorities and the U.S. role in the world. Given the importance of the program to U.S. foreign policy and security, it is important to revisit and build on the 2015 BPC report. In this updated report, we have set out to:

- Examine the evolution of PEPFAR's strategies and way of doing business;
- Review the public health impacts of PEPFAR;
- Build on the 2015 report and further describe the secondary impacts of PEPFAR through both analysis and interviews with U.S. ambassadors and Ebola responders; and
- Consider how best to build on the success of PEPFAR and capitalize on the potential of broader use of SHD.



Background on PEPFAR'S Evolution and Impacts

EVOLUTION IN PEPFAR'S STRATEGY AND WAY OF DOING BUSINESS

Since its 2003 enactment, PEPFAR has made remarkable and historic progress. The first phase of PEPFAR was marked by the emergency provision of lifesaving antiretroviral therapy to more than two million people, along with investments resulting in the prevention of an estimated seven million new HIV infections and care for more than 10 million people, including orphans and vulnerable children.¹⁷ This initial effort included rapid expansion of voluntary testing and counseling, investment in central and rural health clinics, training of health workers, and improving supply chains and other infrastructure.

PEPFAR's 2008 reauthorization (The Tom Lantos and Henry J. Hyde United States Global Leadership against HIV/AIDS, Tuberculosis and Malaria Reauthorization Act of 2008) put \$48 billion toward combating HIV/AIDS, tuberculosis, and malaria, and focused on building greater country ownership of U.S.-operated programs. The 2008 reauthorization led to an increasingly effective combination of prevention and treatment interventions, including more than doubling the number of patients on treatment from 2008 to 2012 and rapidly scaling up prevention of mother-to-child transmission programs to reduce new infections.¹⁸ PEPFAR investments were also expanded into countries not previously considered "focus countries" but that had substantial need, such as Zimbabwe, Swaziland, and Malawi.

PEPFAR was again reauthorized in 2013 via the PEPFAR Stewardship and Oversight Act of 2013. This third phase of PEPFAR has leveraged previous gains and is making full use of the vast amounts of available data to work toward epidemic control, which PEPFAR defines as when "the total number of new HIV infections falls below the number of deaths from all causes among HIV-infected individuals."¹⁹ PEPFAR is now collecting and using age and sex-disaggregated data down to the site-level, which is enabling the program to better target resources and ensure accountability. The objectives of "PEPFAR 3.0" are to continue investing in testing and treatment, and to provide greater services for orphans and vulnerable children in over 50 countries, and to accelerate progress toward control of the HIV epidemic in 13 of those countries.¹⁹

After year-over-year increases in the early years of the program, PEPFAR's funding has remained relatively constant since 2009, despite a growing mission that now includes epidemic control. PEPFAR is, therefore, a remarkable story of a program that has found new ways to do more with less, generating a strong record of success despite level funding. Throughout the program's history, PEPFAR investments have continually been re-focused to take advantage of lessons learned and address the most important drivers of the HIV/AIDS epidemic.²⁰ This is perhaps one reason why the program has enjoyed strong bipartisan support throughout the years.

Moving to a Paradigm of Ending the HIV/AIDS Epidemic

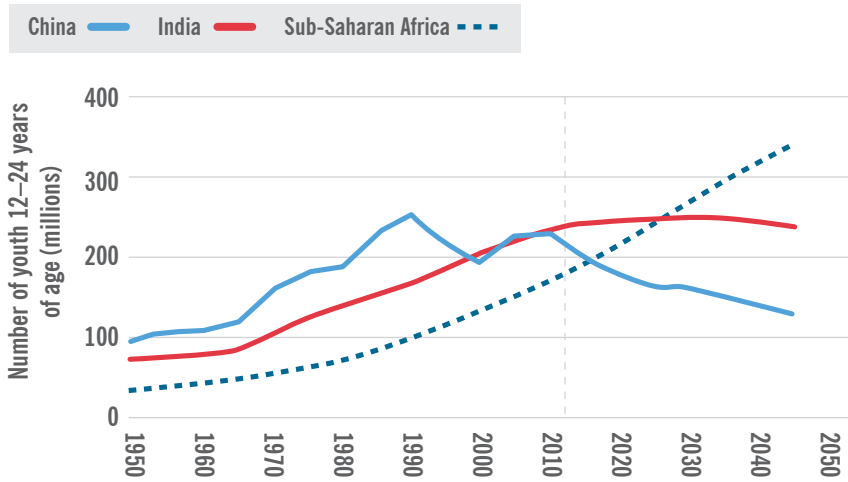
A 2011 study funded by the National Institutes of Health led to a major paradigm change in the United States' and global approach to controlling the HIV/AIDS epidemic. The HIV Prevention Trials Network's HPTN 052 study confirmed a scientific theory that decreasing HIV virus levels could nearly eliminate sexual transmission.²¹ The study, and others reporting soon after, also found that earlier HIV treatment was associated with fewer opportunistic infections and other illnesses and was "very cost-effective."^{22,23}

This new evidence led to changes in the treatment guidelines for HIV at the U.S. Department of Health and Human Services and WHO. Scientific data were combined into projection models that suggested that testing and treating all individuals with HIV, combined with other effective prevention interventions, could together "end AIDS as a public health crisis" by 2030.²⁴ An important component of that strategy is the adoption of an ambitious "90-90-90" UNAIDS goal, which calls for 90 percent of all people living with HIV to know their status, 90 percent of all people diagnosed with HIV to receive antiretroviral treatment, and 90 percent of all people receiving treatment to have viral suppression by 2020.²⁴

Demographic Shifts, Responsive Policies

Much of the developing world, and especially sub-Saharan Africa, is undergoing a major demographic shift dubbed the "youth bulge" (Figure 2).²⁵ By 2030, the youth population in sub-Saharan Africa will have doubled from the start of the HIV epidemic. The youth bulge is an impending tsunami that could reverse the last 15 years of progress fighting the HIV epidemic. This issue also impacts the stability and security of key U.S. trading partners; in fact, the CIA has noted that the emergence of a youth bulge is associated with the potential emergence of political instability.²⁶

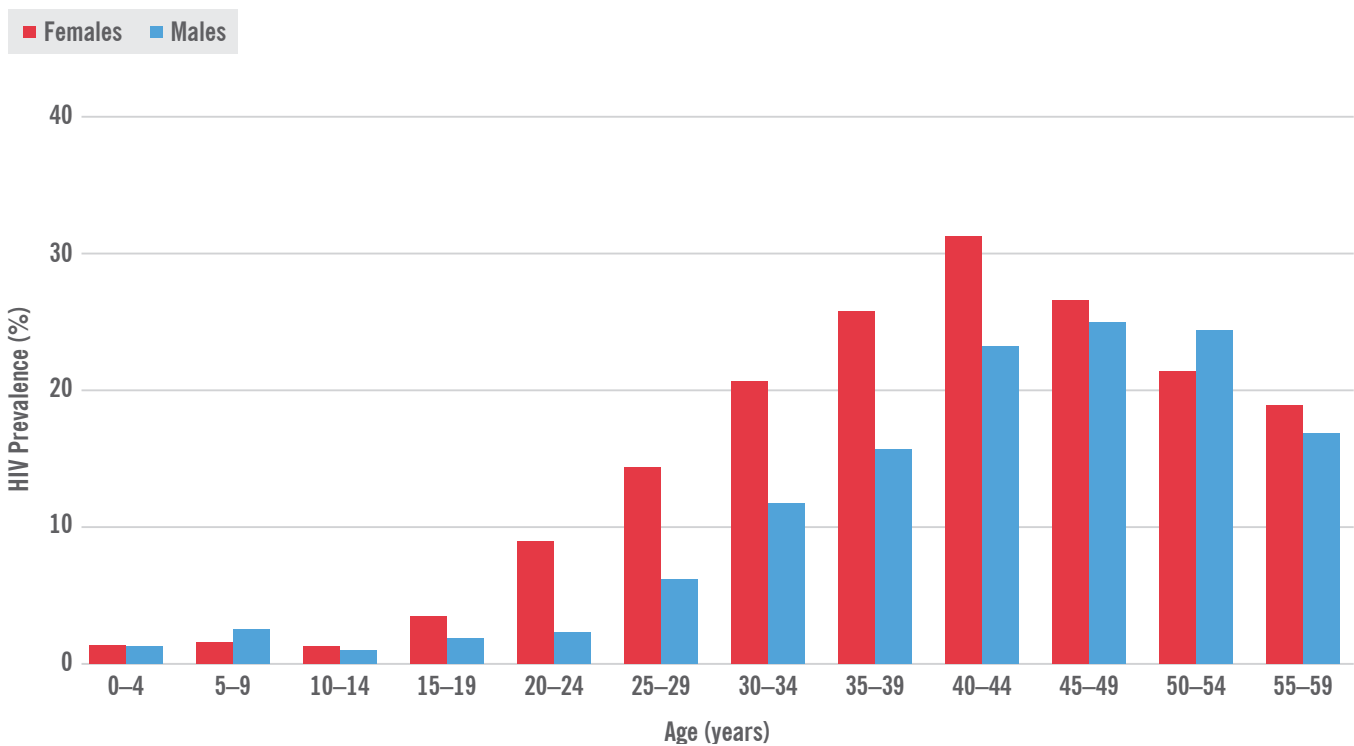
Figure 2. The Rising Number of Youths in Sub-Saharan Africa



Source: World Bank²⁵

Even as PEPFAR has made great strides in treating infected individuals and moving toward epidemic control, huge numbers of children are entering adolescence, just when they are most at risk of acquiring HIV. Adolescent girls and young women are at a particularly high risk for HIV infection. In Zambia, HIV prevalence among 20- to 24-year-olds is a startling four times higher among women than men (Figure 3).²⁷ In fact, girls and young women account for 74 percent of new HIV infections among adolescents in sub-Saharan Africa. That number is primarily driven by sexual encounters with men who are five to ten years older than the girls and that often involve financial or other resource exchanges.^{28,29}

Figure 3. Disproportionate HIV Prevalence Among 15- to 25-Year-Old Adolescent Girls and Young Women



Source: Zambia population-based HIV impact assessment: Columbia University²⁷



Given the severity of the HIV problem among young women, and the potentially destabilizing effects of the youth bulge (especially with uncontrolled HIV transmission), PEPFAR launched the DREAMS program, a multi-sectoral public-private partnership to help girls develop into “Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe” women.³⁰ Private-sector partners investing in DREAMS include the Bill & Melinda Gates Foundation, Girl Effect, Johnson & Johnson, Gilead Sciences, and ViiV Healthcare. The DREAMS program recognizes that reducing HIV risks among adolescent girls and young women requires intervening beyond the health sector to address “the structural drivers that directly and indirectly increase girls’ HIV risk, including poverty, gender inequality, sexual violence, and a lack of education.”³⁰ PEPFAR has now invested over \$700 million in DREAMS, and the results of the program so far indicate that it is beginning to have its desired effect.²⁰ On World AIDS Day 2017, PEPFAR reported that 65 percent of the highest HIV-burdened communities or districts addressed by DREAMS achieved a 25 to 40 percent or greater decline in new HIV diagnoses among young women—a promising statistic, and one that reflects once again how PEPFAR investments are continuously re-targeted to have the greatest potential impact.²

Partnerships for Greater Impact and Sustainability

Lastly, PEPFAR’s current strategy has focused on “leveraging partnerships for sustainability.”¹⁹ This includes leveraging precious federal dollars by encouraging countries receiving PEPFAR aid to assume greater responsibility for both program funding and operation, as well as partnering with other organizations and local governments.

In recent years, PEPFAR has accelerated efforts to work with partner countries to encourage greater domestic spending on health and other services. The U.S. Department of Treasury is now actively collaborating through PEPFAR with the finance ministries of partner countries to further encourage national governments to lead their own health responses. PEPFAR pushes for greater sustainability of the health response by tracking national ownership of key health systems components through the PEPFAR Sustainability Index and Dashboards, available on the PEPFAR website.³¹

The rapid growth of South Africa’s spending on its HIV program provides an example of the way in which PEPFAR has been able to encourage partner countries to increase domestic spending on health. South Africa’s annual multi-sectoral spending on HIV was approximately 23 billion Rand, or nearly \$2 billion annually, in 2018, a nearly three-fold increase since 2011.³² Even with the slowing down of South Africa’s economy over the last several years, the country continues to increase its annual investments.

Another way in which PEPFAR has enhanced partnerships and led to a sea-change in development programs is through the transformation and transparency of data and planning (Spotlight 1). For instance, while there has always been coordination between PEPFAR and the Global Fund, the availability of improved subnational data and greater transparency on both sides has led to a powerful convergence of programming and planning between these entities. Funds are being allocated more synergistically and working to the comparative advantages of each model, which yields benefits for not only the HIV response, but also for responses to malaria and tuberculosis.³³

SPOTLIGHT 1: PEPFAR INNOVATION: COUNTRY OPERATIONAL PLAN REVIEWS

In 2016, PEPFAR opened its annual planning meetings to a range of key actors, including partner governments, civil society, and complementary donors such as the Global Fund. No other bilateral global health program in the world has taken such bold steps toward transparency—providing stakeholders, including the communities served by PEPFAR programs, the opportunity and information to engage directly in the process of reviewing program data, budgets, and the priorities for the following year. This process is relatively new and still has room for improvement. However, this dramatic shift to transparency puts U.S. values of democratic governance into practice:

- PEPFAR models an effective process of evidence-based public health planning and resource allocation for partner organizations and governments.
- This process enables members of civil society from affected countries to provide feedback and accountability about the national programs and to ensure that partner governments are able to hear these views. This not only has a salutary effect on governance and accountability in the national public health programs of the countries themselves; it also improves the effectiveness of PEPFAR's own investments and operations.
- System transparency ensures that any overlap or duplication is eliminated.
- Finally, by opening the doors, PEPFAR enhances the political and broader visibility of its investments and health impact in partner countries.

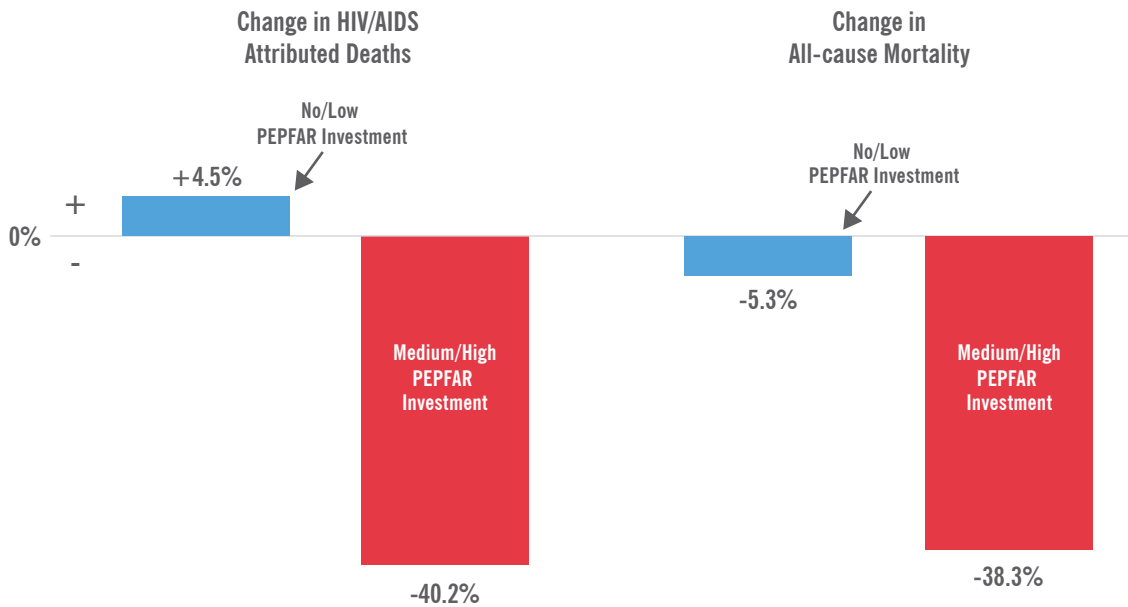
PUBLIC HEALTH IMPACTS OF PEPFAR

As a direct result of PEPFAR and working together with complementary organizations and programs like the Global Fund, nearly 21 million of the 37 million people living with HIV worldwide are on antiretroviral treatment.¹² As of May 16, 2018, PEPFAR's 15-year anniversary, PEPFAR had provided antiretroviral treatment to more than 14 million men, women, and children—double the number from just four years prior (and up from fewer than 50,000 people receiving treatment in sub-Saharan Africa in 2003). This escalation was due in part to WHO guidelines that expanded treatment eligibility.^{34,35} PEPFAR has also allowed 2.2 million babies to be born HIV-free to mothers living with HIV, and provided support to 6.4 million orphans, vulnerable children and their caregivers.² What's more, in 2017, PEPFAR achieved the largest single-year increase in voluntary medical male circumcisions (3.4 million), one of the most effective forms of HIV prevention.² These successes are all the more notable given that the program has received level funding since 2009.

Over the last 15 years, deaths due to HIV/AIDS have nearly halved.¹² In addition, researchers found that the original PEPFAR focus countries have had significantly greater declines in deaths from all causes than did non-focus countries.³⁶



Figure 4. Average Weighted Change in Percent of Total Deaths Attributable to HIV/AIDS and All-Cause Mortality by Level of Cumulative PEPFAR Investment, 2004-2016

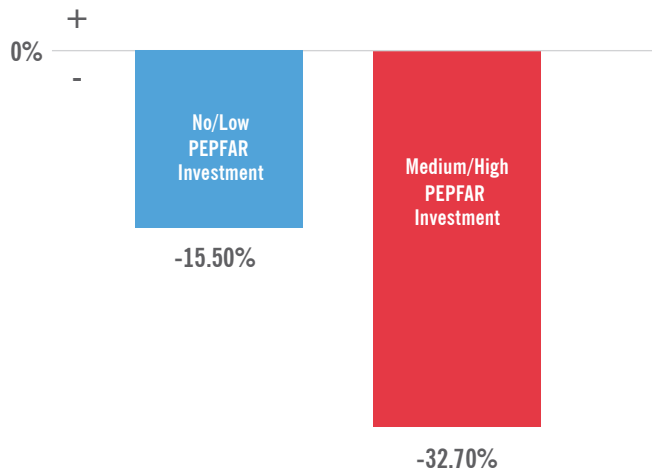


Source: Analysis of data from the Global Burden of Disease Study 2016³⁷

We compared countries that received “medium” or “high” levels of PEPFAR investment with similarly situated countries that received “no” or “low” cumulative investments and found that:

- The percent of total deaths attributable to HIV/AIDS in medium- and high-investment countries decreased by 40 percent (Figure 4);
- Medium- and high-investment countries had a greater percent decrease in all-cause mortality; and
- The percent of disability-adjusted life years attributed to HIV decreased by 33 percent versus 15 percent in no and low investment countries—a two-fold difference (Figure 5).³⁷

Figure 5. Average Weighted Change in Percent of Total DALYs Attributable to HIV/AIDS by Level of Cumulative PEPFAR Investment, 2004-2016



Source: Analysis of data from the Global Burden of Disease Study 2016³⁷

Even though the PEPFAR program has received level funding for nearly 10 years, it has expanded its treatment program tremendously. It now supports 14 million people on treatment in 2018, up from two million people in 2008.²⁰ PEPFAR's gains have been achieved through efficiencies such as:

- Providing clinical services in lower-level health facilities;
- Using more trained allied health professionals;
- Shifting the supply chain away from air delivery and toward sea cargo;
- Using more local partners; and
- Using pooled procurement to reduce drug costs.

Driving Innovation and Lowering Prices for HIV Medicines

When PEPFAR began, one of the biggest hurdles to rapid HIV treatment scale-up was the high price of antiretroviral drugs, which were generally only available in proprietary form for use in the United States and other high-income nations' markets. There was concern that if less expensive versions of the drugs became common, it would undermine incentives to research new drugs. Long-term commitments from PEPFAR and the Global Fund, however, have transformed the landscape and helped show that innovation and access can be achieved together.³⁸ Pooling procurement across countries and buying in bulk helped to build a market for affordable medicines and to drive down prices rapidly. Meanwhile, innovation has been robust, with public- and private-sector investments producing scientific discoveries that have made treatment more effective with far fewer side effects.³⁹

Critically, antiretroviral drugs have been made quickly available for use in the hardest hit countries in Africa—a paradigm-changing accomplishment as people in low-income countries once waited decades for innovative medicines.⁴⁰ Most recently, in September 2017, PEPFAR and the Global Fund partnered with the governments of South Africa and Kenya and a range of public- and private-sector partners to announce a new initiative to make a cutting-edge combination of the antiretroviral drugs tenofovir, lamivudine and dolutegravir available at a reduced price.⁴¹ In 2003, PEPFAR was paying \$125 per person for a month's supply of lifesaving medicine.⁴² Today, newer and far better medicines are being distributed for just \$6 a month per person.⁴³

The public health impacts of PEPFAR are undeniable. That the program expanded to new countries, made loftier goals, developed and maintained evolving partnerships, and responded to demographic shifts all with level funding for nearly a decade makes these achievements even more impressive.



A Deeper Understanding of Strategic Health Diplomacy in the Context of PEPFAR

SHD recognizes that investments in global health not only save lives, but are also an effective tool for advancing America’s national security and foreign policy interests. Academic analyses and the 2015 BPC report demonstrated PEPFAR’s broader effects on an array of societal measures, from economic benefits to strategic alliances.

Figure 6 shows a visual model of PEPFAR’s SHD effects, starting with health impacts in the outer ring. BPC identified six attributes of PEPFAR (light blue) that have contributed to its success: clearly defined goals, real need and visible impacts, global goals and a local focus, long-term commitment, capacity-building, and transparency. In turn, the health impacts of PEPFAR combined with these attributes have led to secondary effects (dark blue) on socioeconomic development, positive public opinion, improved governance, stability, and an empowered civil society, and diplomatic engagement. Through these primary and secondary effects, the United States has realized key benefits of SHD (red center): collaboration on strategic objectives; strengthened economies for more viable trading partners; and the mitigation of chaos, war, and disruption.

Figure 6. Pathway for Attainment of Key Benefits of SHD



IMPACTS OF STRATEGIC HEALTH DIPLOMACY

As shown in Figure 6, beyond PEPFAR's impact on public health, the program is associated with positive secondary effects in four key areas: (1) socioeconomic development, (2) public opinion, (3) governance, stability, and civil society empowerment, and (4) diplomatic engagement.

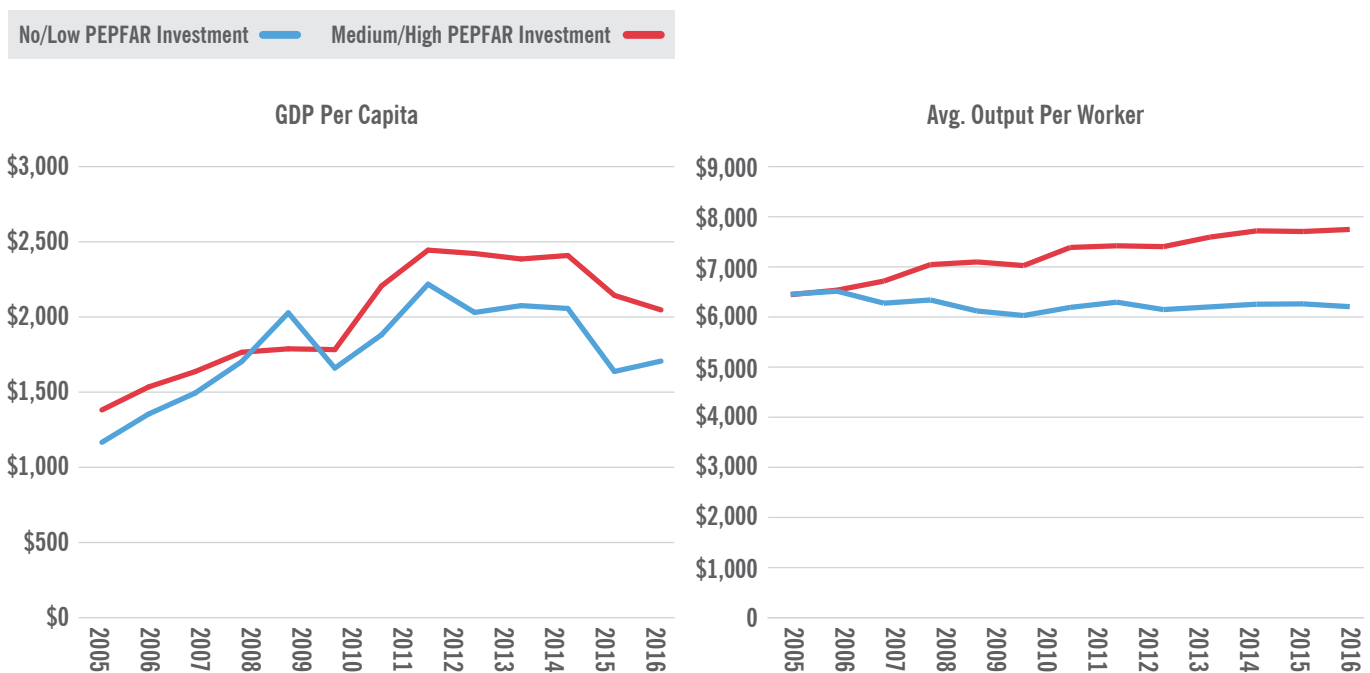
Socioeconomic Development

Economic development, stability, and productivity all require human capital. Strong economies rely on healthy individuals who can work productively and consume goods. In fact, it has been estimated that fully half of America's economic growth over the last century is associated with improvements to overall health.⁴⁴ Conversely, a 2003 U.N. report found that in countries where a substantial proportion of the adult population had HIV, the epidemic exacerbated preexisting socioeconomic problems by eroding household and labor force productivity, thereby reducing economic growth rates by an estimated two to four percent.^{45,46} Because HIV/AIDS substantially impacts employment and productivity, the epidemic also jeopardizes the ability of impacted countries to serve as trading partners to the United States. PEPFAR has significantly mitigated these forces in partner countries.

The Effects of HIV and Treatment on Employment and Productivity

In a review of GDP per capita and average output per worker among countries with different levels of PEPFAR investment, countries with medium and high levels of PEPFAR investment between 2004 and 2016 had greater GDP growth and greater changes in worker productivity than countries with low or no PEPFAR investment (Figure 7).^{47,48} This relationship holds even when controlled for political stability, violence, and other health aid (Appendix A).

Figure 7. GDP Per Capita and Worker Productivity (Output Per Worker) by Level of Cumulative PEPFAR Investment, 2004-2016



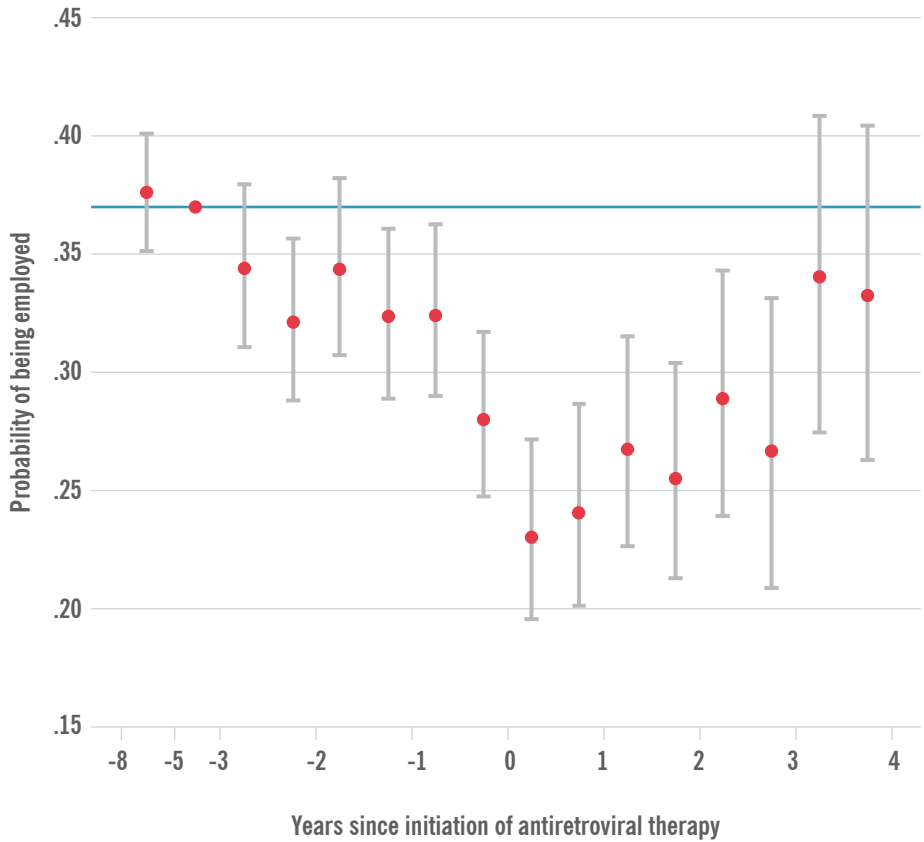
Source: World Bank; International Labour Organization^{47,48}

This finding makes sense: PEPFAR has had significant positive health impacts in partner countries; as a result, there is a more productive workforce and healthier economy in those nations overall. Other research has confirmed the economic benefits of antiretroviral treatment. In the first study to examine population-wide HIV-related employment trends in South Africa, scholars found a sharp 38 percent relative decline in employment as



individuals experienced severe immunosuppression and became ill with the disease.⁴⁹ Following the initiation of antiretroviral therapy, patients generally experienced a near (90 percent) complete recovery in their employment (Figure 8).

Figure 8. Probability of Being Employed Among HIV Patients Receiving Antiretroviral Therapy in South Africa



Source: Bor, et al., Health Affairs⁴⁹

Strikingly, scholars have also found that PEPFAR was associated with a 13 percent increase in employment among males in PEPFAR focus countries compared with similar controls (this effect was not seen among women).⁵⁰ Furthermore, each \$100 in PEPFAR per capita funding was associated with a 9.1 percent increase in employment among males.⁵⁰ These studies confirmed the significant productivity-enhancing benefits of HIV treatment, also reflected in studies of tea-pluckers in western Kenya and miners in Botswana.^{51,52}

Trade Flows

Expanding economic opportunity for Americans and enhancing U.S. prosperity by entering new markets and building fair and reciprocal trade relationships is a major pillar of America’s national security strategy. The greater economic growth associated with PEPFAR investments has gone hand-in-hand with Africa’s growth as a trading partner with the United States. In the past 15 years, the amount of trade between sub-Saharan Africa and the United States has grown significantly. Expanded regional economies, improved transportation and access, and an increasingly conducive regulatory environment have fueled this growth. In fact, a World Bank report found that in 2013 and 2014, the region accounted for the largest number of regulatory reforms globally that lowered the cost of doing business, such as revamping regulations dealing with “documents and time and cost to export and import by seaport.”⁵³

Total United States trade with sub-Saharan Africa was \$40 billion in 2017.⁵⁴ Four of the top five trading partners in the region received significant PEPFAR funding (South Africa, Angola, Nigeria, and Ethiopia), and the fifth (Ghana) has been a major recipient of U.S. development funding.⁵⁵ The top U.S. exports to the region were cars, trucks, machinery parts and medical instruments.⁵⁵

Countries receiving PEPFAR investment—including Ethiopia, Côte d’Ivoire, Senegal, and Tanzania—represent some of the world’s fastest-growing economies, and the socioeconomic benefits associated with PEPFAR provide a basis to advance U.S. goals to “partner with countries as they build their export markets, promote free market competition, and incentivize private sector growth” and “expand U.S. trade and investment opportunities and increase the market base for U.S. goods and services.”¹⁶

Promoting Positive Public Opinion of the United States Around the World

The 2015 BPC report noted that “studies have shown that PEPFAR has contributed to a positive opinion of the United States in target countries—a finding that holds true across all 12 PEPFAR countries in sub-Saharan Africa receiving funds since 2003.”¹⁰ Some have suggested that PEPFAR funding has helped drive positive perceptions of the United States around the world through the magnitude of its health impacts and through the demonstration of American values like compassion and “generosity and technical virtuosity.”⁵⁶

Noting that a large number of young adults in East and Southern Africa have grown up with PEPFAR programs in their communities, one U.S. ambassador to a PEPFAR country related a story that clearly illustrates the power of the program’s effect on public opinion regarding the United States:

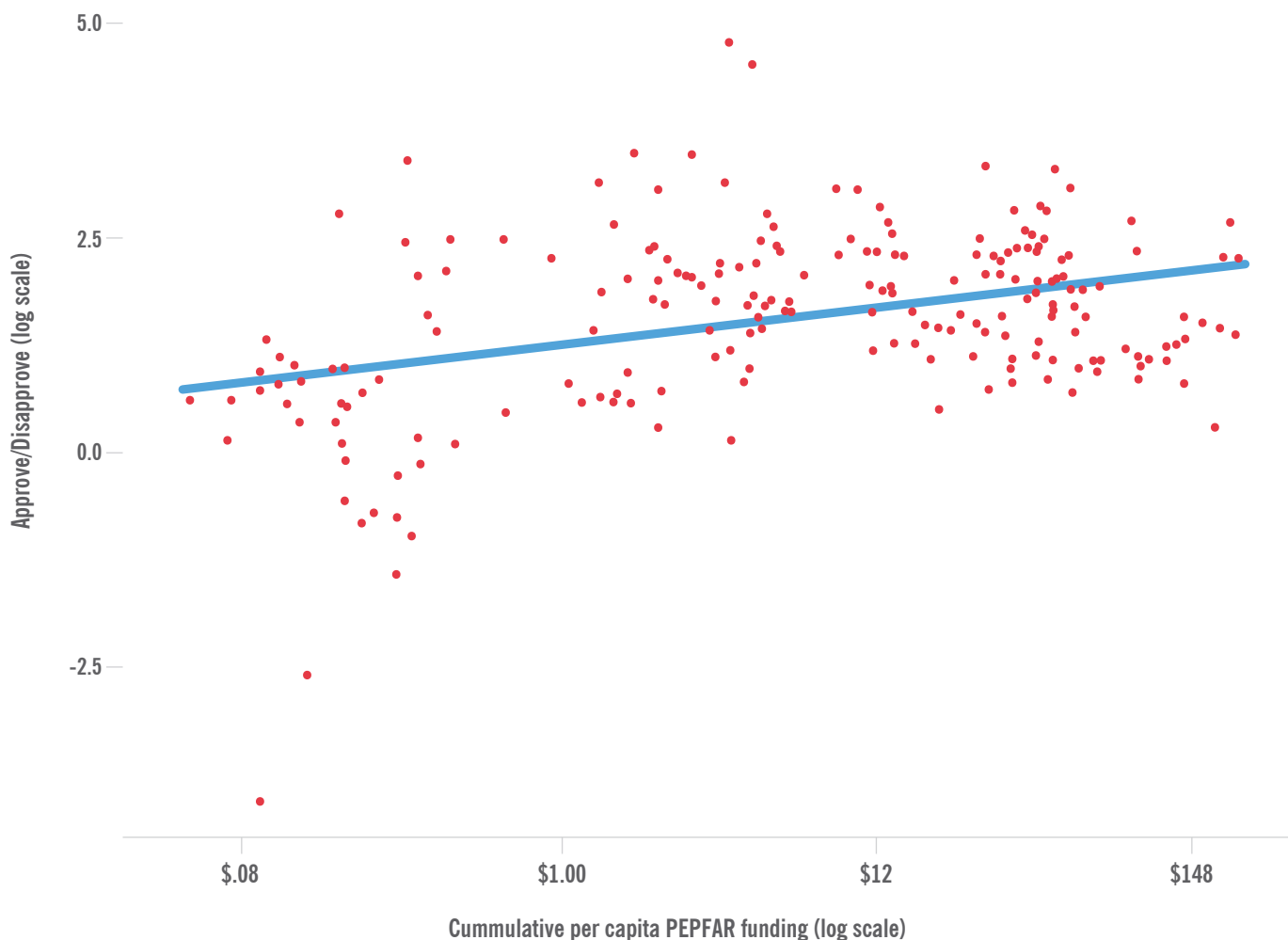
One person from a rural area who had gone on to win a Fulbright to study in the U.S. related how, “Every time I go home, I walk by the clinic that’s always been there. And it has this little American flag there. I always think in my head, ‘Thank you, America.’”

Research has consistently associated PEPFAR with higher public opinion of the United States, an association that has now been sustained for 15 years. This association was conclusively established in a seminal 2014 paper published in the Quarterly Journal of Political Science (QJPS), that demonstrated that PEPFAR investments were strongly associated with improved perceptions of the United States between 2003 and 2010, as measured by Gallup polling.⁴

Using new Gallup polling, the QJPS authors updated this analysis and evaluated the association of the intensity of PEPFAR investments with public opinion around the world (Figure 9). They found that PEPFAR sustained its positive impact on public opinion of the United States for yet another six years, through 2016 (the latest date that data was available).^{5,6}



Figure 9. Cumulative PEPFAR Funding Per Capita and Opinion About U.S. Leadership, 2006-2016



Source: Analysis of data from Gallup⁶

Foreign public opinion of the United States has important implications for everything from U.S. national security to working with allies, maintaining trade relationships, responding to disease outbreaks, and securing cooperation for development goals. PEPFAR contributes to these broader U.S. objectives by helping to shift public opinion in countries that receive its investment dollars.

Improved Governance, Stability, and Civil Society Engagement

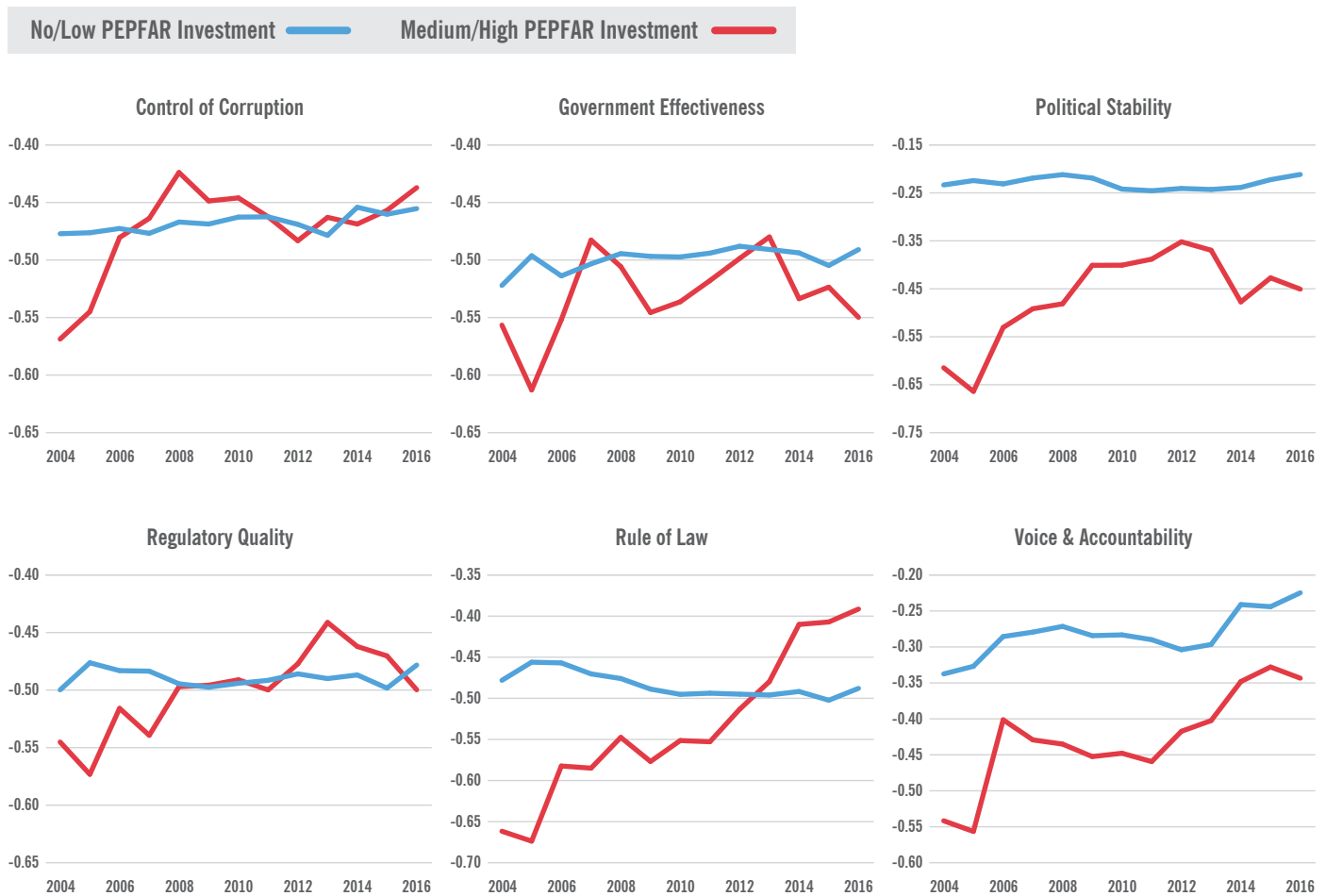
Stable, well-governed societies tend to provide the best opportunities for citizens to thrive. Stable societies also contribute to global security and U.S. security by acting as a bulwark against radicalization and violence. Stability stymies terrorist actors who normally “thrive under conditions of state weakness and prey on the vulnerable as they accelerate the breakdown of rules to create havens from which to plan and launch attacks on the United States, our allies, and our partners.”¹⁶

In a review of key World Bank indicators across countries with varying levels of PEPFAR funding, governance in the countries with heavy PEPFAR investments saw sharp gains. As seen in Figure 10, at the start of PEPFAR, the partner countries slated to receive higher levels of program funding were worse off in all the key World Bank indicators—few controls on corruption, inefficient government, political instability, no capacity for regulation, weak rule of law, and little accountability or voice. This is not surprising, since the countries initially identified as PEPFAR partners had,

on average, a higher level of HIV disease burden, which had a corresponding impact on governance. But after PEPFAR funding came in, these partner countries saw steady gains in governance indicators.

The countries without significant PEPFAR investment, however, saw little change—even when statistical analysis controlled for factors like the effect of other aid programs or political instability (Appendix A). Greater PEPFAR funding was associated with greater government effectiveness, regulatory quality, and rule of law—with results that were highly statistically significant. Figure 10 also demonstrates that countries with greater PEPFAR investment also saw increases in corruption control, and voice and accountability, but it was not possible to determine whether these effects are significant without more data.

Figure 10. Changes Over Time in World Bank Governance Indicators by Level of Cumulative PEPFAR Investment, 2004-2016



Source: Analysis of data from the World Bank⁵⁷



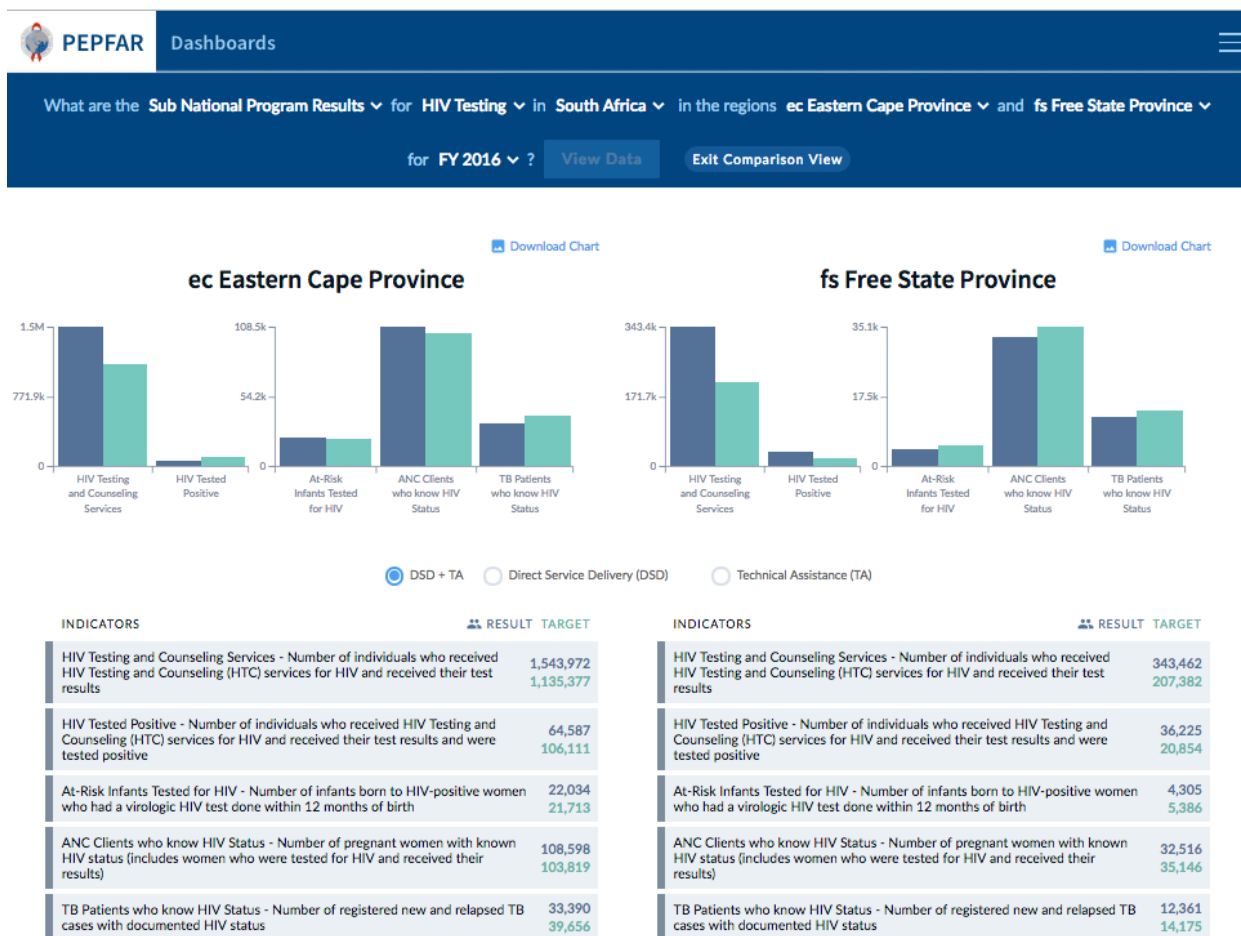
Similarly, a recent study examined the extent to which U.S. investments in health aid overseas were associated with state “fragility” as measured by indicators of social, economic and political stability.⁷ The researchers found that the highest quartile of U.S. health aid per capita spending was associated with a large and immediate decline in the level of state fragility, which provides a measure of a state’s vulnerability to collapse or conflict.⁸

Taken together, these findings suggest that a combination of PEPFAR’s health and socioeconomic effects, and government-to-government partnership and diplomacy are key factors leading to more effective governance and stability.

Health Systems Governance and Data Use

PEPFAR helps build partner countries’ capacity for better and more transparent health systems management.⁵⁸ In recent years, PEPFAR has increasingly focused on data collection, interpretation, and programming use. Working alongside ministries of health in partner countries, PEPFAR has built systems that can provide an unprecedented level of insight into the HIV epidemic on the ground (Figure 11). For example, these tools show where in each country untreated HIV is surging, who still needs to be diagnosed, and which demographics are being left behind by the programming.^{59,60}

Figure 11. PEPFAR’s Dashboards for Tracking HIV and the HIV Response



Source: U.S. State Department⁶⁰

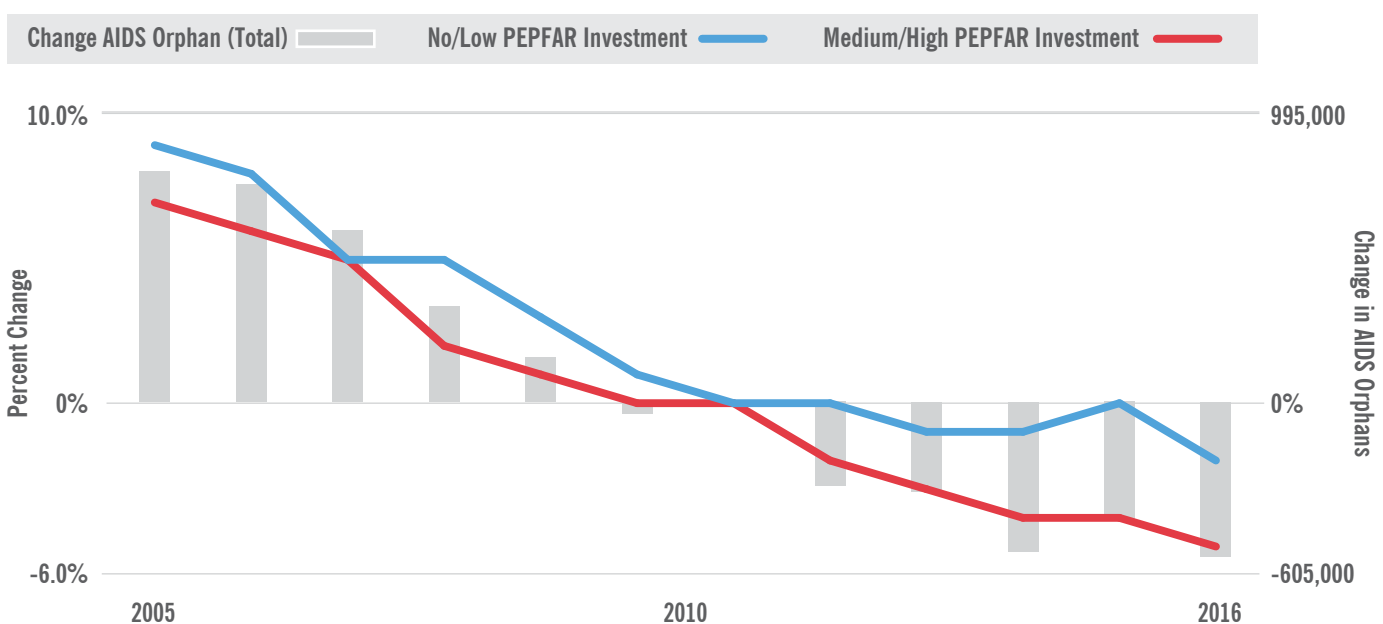
This has led to a new “data diplomacy” as PEPFAR moves beyond just providing services to partner countries to working directly with them to improve how they generate and use data to govern their health systems.⁶¹

Improving Community Stability Through Care for Orphans and Decreased Orphan-hood

One of the most devastating effects of HIV is the impact of parental deaths on children and other family members left behind. This results in deep psychological wounds, immediate physical threats to safety, financial debts, community health shocks, and the potential for societal destabilization as rates of orphan-hood rise.⁶²

In 2017 alone, PEPFAR provided care and support to more than 6.4 million orphans, vulnerable children, and caregivers to mitigate the physical, emotional, and economic impacts of HIV/AIDS. Importantly, PEPFAR has also effectively prevented the destabilizing effects of orphan-hood by averting the deaths of parents through the provision of antiretroviral therapy and related care. As shown in Figure 12, countries in which PEPFAR has invested most intensively have experienced a greater decrease in orphaned children due to AIDS than countries with less PEPFAR investment.⁶³

Figure 12. Year-over-year Percent Change in AIDS Orphans in Countries by Level of Cumulative PEPFAR Investment, 2004-2016



Source: UNAIDS⁶³

From its inception, one of PEPFAR's greatest strengths has been its focus on caring for the children and caregivers who were profoundly affected by the AIDS crisis—those who saw parents and community members ravaged by the epidemic. These actions, combined with the rapid expansion of lifesaving treatment, are undoubtedly responsible for at least some of the deep reservoirs of positive opinion and broader SHD benefits associated with PEPFAR.

Empowered and Engaged Civil Society

PEPFAR has long-recognized that civil society is a key partner in the delivery of health care in many of the countries hit hardest by HIV. Civil society also frequently plays a vital advocacy and accountability role when it comes to the performance of health systems in meeting the needs of people living with and at risk for HIV.^{64,65}

For example, faith-based organizations have a longstanding presence throughout many PEPFAR countries and are an essential arm of the national response. In Nairobi County of Kenya, which has the country's highest burden of HIV, faith-based partners support 40 percent of adults receiving treatment.²⁰ PEPFAR also plays an important role in strengthening small civil society partners, which often provide invaluable support to some of the most stigmatized members of society. PEPFAR supports these organizations through its Local Capacity Initiative, and it also links groups together by



supporting networks such as the Robert Carr Civil Society Networks Fund.^{66,67} These groups play an essential role in elevating the voice of the people within the HIV response and beyond, and bolstering government accountability.

[PEPFAR has] been helpful in . . . allowing us to identify potential civil society partners, and then to work with them to help them develop into more solid organizations. . . that will pay dividends down the road as they continue to contribute to society and addressing various challenges the country has.

—U.S. Ambassador to a PEPFAR country

The recent shifts to open the PEPFAR planning process to civil society described in Spotlight 1 have allowed civil society groups to directly participate in priority setting, which is strengthening the capacity for engagement and analysis at the country level. By providing civil society groups with data about which districts or populations are lagging, for example, PEPFAR helps inform country-level accountability work. And inviting civil society into the planning process alongside national governments helps build capacity and respect for community knowledge among all stakeholders.

The associations between PEPFAR investments and macro effects such as effective governance are the result of a complex set of influences, including improvements in health, mitigation of destabilizing deaths and orphan-hood, improvements in socioeconomic conditions, better government-to-government engagement, and more support for civil society engagement and accountability. Ultimately, these effects are vital to decreasing the risks of chaos, war, and disruption, which are critical, if distal, outcomes of SHD.

Enhanced Diplomatic Engagement

Diplomatic engagement is a fundamental element of U.S. foreign policy as well as a critical, if under-recognized, feature of the PEPFAR program. It was no accident that the coordination office for PEPFAR was placed in the U.S. State Department and its leader given the title of ambassador at large. In each country with PEPFAR funding, the U.S. ambassador is responsible for the program's success.⁶⁸

To better understand the impact of PEPFAR on diplomatic engagement, the BPC team conducted interviews with U.S. ambassadors who have served in PEPFAR countries. As outlined below, these conversations highlighted the power of PEPFAR to strengthen relationships with partner countries and advance U.S. diplomatic interests. Several key themes emerged:

- Enhancing public diplomacy;
- Opening doors in difficult relationships;
- Expanding the geographic reach of the U.S. Embassy;
- Creating deeper relationships with civil society and non-government sources of authority;
- Opening political space;
- Bridging military relationships; and
- Leveraging greater domestic investment in health.

Not every American diplomat successfully leverages PEPFAR as a strategic diplomacy opportunity—but these interviews revealed that many have, resulting in important benefits for U.S. strategic interests. Short excerpts from the interviews highlight these themes.

Enhancing Public Diplomacy

Among the most obvious mechanisms by which PEPFAR achieves wider diplomatic goals is through high-visibility and high-value projects, such as support for clinics, provision of medicines, and care for orphans. Unlike many other diseases, HIV attacks the young, economically productive segments of society—striking down parents, workers, members of the armed forces, and others. PEPFAR therefore directly reaches one of the most important demographics for U.S. public diplomacy: emerging leaders. One ambassador said:

I ended up having the opportunity to deal with a lot of young people, who influence young people. The demographic we were trying to reach, I could not possibly have reached, in part because of the work we did with them in different ways on PEPFAR. . . . So, whenever I would travel around the country, I would frequently travel with young pop singers, artists, journalists. And we often were able to support them, because they supported PEPFAR programs. We would be going around engaged in various kinds of activities frequently related to PEPFAR programs, and they would be tweeting about what they were doing, and they had huge followership, followership that an ambassador would never have.

This type of diplomacy builds goodwill and improves public perception of the United States, especially where the HIV epidemic has hit hardest and where the United States has invested most intensively.

Opening Doors in Difficult Relationships

PEPFAR is visible not only to the broader public but to political leaders who are keenly aware of the detrimental impact of HIV on their societies, health systems, and economies. Ambassadors described how PEPFAR helped open doors for discussions on far more contentious issues, such as governance. As one ambassador said:

I came into the post having to very explicitly work on getting a problem relationship back on track. . . . PEPFAR allows me to go into every meeting with the prime minister and have my first talking point be: “Here’s what’s happening with PEPFAR. Here’s the budget level that we’re providing this year. Here’s the tremendous success. We’re so grateful for what great partners you are on this.” It always gave me that positive talking point before I had to get into, “So, when are we going to get this public order legislation passed?”

I found that as an ambassador, for instance where relations weren’t ideal, . . . you needed to agree on something before you could actually bring up something on which you disagreed. PEPFAR made that conversation easier because it was easy to agree on AIDS and PEPFAR.

Another ambassador described how PEPFAR opened the door to discuss controversial human rights issues:

The war in northern Uganda where the Uganda government itself had a flawed and anti-human-rights strategy, . . . the question of how they handled northern Uganda was probably the most delicate issue that we had there, and we were trying to get the government to do much more. . . . Luckily, the minister of health, a doctor, was keenly interested and big supporter of PEPFAR. It was a great relationship builder with him, to then say: “You know your troops, . . . we have information that your troops are committing atrocities, that they’re not responding to the orders that you say they’re getting. . . . Those kinds of discussions were difficult to have. But PEPFAR did help build trust there.

Further, the breadth of the PEPFAR program and the fact that it touches multiple sectors of partner countries provides ambassadors with entrées to many different departments and individuals:

Under the PEPFAR umbrella, it gives us access to a lot of other areas. . . . It opens up doors to everyone from the Ministry of Gender and the Ministry of Justice and the Ministry of Education, and the Ministry of Agriculture, and the Ministry of Defense.

Expanding the Geographic Reach of the U.S. Embassy

Similarly, diplomats reported that PEPFAR routinely provided them with an opportunity, and an excuse, to travel to places that an American diplomat might not otherwise visit.



PEPFAR gave us relationships and real presence in areas we would not otherwise have had. . . . I could always visit a PEPFAR site, and sometimes that was in going to the north where there was the Lord's Resistance Army and going to the northwest, which was a very inaccessible part of the country that was very suspicious of the central government. The government wasn't eager for diplomats to go up there. I mean, I could've found an excuse, but the Peace Corps wasn't there, self-help projects were few and far between. But PEPFAR was real, and we had a reason to look at a PEPFAR grant or institution and treatment center and thus go deeper.

It was the fact that I was going to those remote places. . . . The national television company would faithfully pitch-up, and then I would be on the evening news simply saying, "I'm here, this PEPFAR program is going on, it's saving peoples' lives." . . . The fact that I was ending up in parts of the country that nobody else went to—including, I would note, a lot of the [national] leadership—gained me a whole lot of points. The first time I had an office call [with] the minister of agriculture, who is one of these old-school types, very suspicious of the U.S., traditionally very hard to get to. The first thing out of his mouth was: "Oh, I saw you! You were in X town in the North" that was from his part of the country. I'm nearly certain that's what got me through his door, because I had waited for months for an appointment with him.

Creating Deeper Relationships with Civil Society and Non-Government Sources of Authority

One of the chief goals of U.S. diplomacy is to create connections beyond government—to reach a wide variety of sectors in society both as audiences for key diplomatic messages and as sources of insights about the country. Because PEPFAR makes investments across civil society, it helps to drive these kinds of relationships in ways few other programs have. As one ambassador described:

[PEPFAR] does offer all kinds of opportunities for interaction with groups that are not just health activists but that are traditional authorities and chiefs and faith-based leaders. They are kind of cultural gate-keepers, so they have influence over issues beyond HIV. So, I think that can be helpful. . . . We need the assistance of chiefs and opinion makers, including preachers and ministers.

Opening Political Space

A long-standing aim of U.S. foreign policy in the regions in which PEPFAR operates has been to support increased democratization, including support of free and fair elections, promotion of the rule of law and good governance, and strengthening civil society. More than \$2 billion annually (out of a federal budget of over \$4 trillion) has been allocated from foreign assistance funds over the past decade for democracy-promotion activities managed by the State Department, the U.S. Agency for International Development, the National Endowment for Democracy, and other entities. PEPFAR does not have an explicit democracy-promotion goal. Nonetheless, American diplomats report that PEPFAR has proved to be an important tool to encourage openness and good governance, in large part because its primary objective is to end the HIV epidemic. As one ambassador recounted:

The most important example . . . was our work with faith-based organizations. And especially with the three mother churches. [PEPFAR] gave us an intimate relationship with them, because we were working on programs together, and we were working both on the senior levels and at the grassroots levels. What this meant for us was that churches ended up being the most important allies in trying to ensure free and fair elections. And it was a seamless transition from our relationship with them with health issues to our relationship with them on democracy and human rights issues.

Another ambassador said:

In Vietnam, we became aware that intravenous drug users were being locked up essentially without trial. But we were able to work with the Communist Party and the Ministry of Public Security using some PEPFAR resources to help them with legal drafting, to help them write laws that helped codify that and make it essentially kind of apply the rule of law to the treatment of drug users.

And another said:

The other piece in Swaziland is . . . the inclusion piece: talking about women's rights, talking about gender-based violence, talking about LGBT rights. The health piece certainly provides an opening . . . and rallying the nontraditional voices, like the business community, who . . . might not necessarily stray into that space.

Bridging Military Relationships

Ambassadors noted that the relationship-building benefits of PEPFAR often extended to traditional security arenas as well—with several reporting that conversations about military collaboration, the fight against terrorism, and other security issues were made easier as a result of the deep level of collaboration fostered by PEPFAR. In May 2017, Amb. Mark Storella wrote in *The Foreign Service Journal*:

Heath programming also helped revolutionize bilateral relations. Zambia had long harbored suspicions about engagement with the U.S. military; one Zambian president had, in fact, declared that the U.S. Africa Command would never set a single boot on Zambian soil. U.S. military personnel were not even allowed to inspect health clinics that we funded on Zambian military bases. But as the country's military leadership came to appreciate the life-saving work U.S. armed forces were doing for their members and their families, a thaw began. In 2013 Zambia hosted Africa Endeavor, AFRICOM's flagship multilateral exercise on the African continent.⁵⁶

Benefits Do Not Come Without Complications

Overall, ambassadors described a clear and positive benefit from PEPFAR for U.S. diplomacy beyond HIV. The expanded relationships are not without complications, however, and ambassadors also highlighted instances where the presence of PEPFAR programs complicated their work as diplomats. One said:

At times, it was actually a double-edged sword, because we had access to the health ministry that continued through PEPFAR, but the fact that we were giving money to them and to health-sector NGOs and not with the same level to other ministries and sectors actually increased tensions as well. In meetings with [other ministries], we continued to have access, but the sense that they would do us favors or bend their rules to help our program became more complicated because of PEPFAR. Because we were such a big program, and they realized that they weren't the main beneficiaries of it.

Leveraging Greater Domestic Investment in Health

Finally, ambassadors recounted that PEPFAR enabled them to better negotiate increased domestic resources among partner-country governments, thereby stretching U.S. foreign aid dollars. As one noted:

Vietnam, because the infection rate was very low, and because HIV was pretty much isolated to men having sex with men, commercial sex workers, and intravenous drug users, they . . . weren't investing a whole lot of money in it. PEPFAR sort of raised the visibility of those things, strengthening the lab systems that had to do with keeping blood clean and being able to test properly was really important to get started. Once they understood the importance of it, they stepped up with funding.

U.S. diplomacy has a wide range of goals—from advancing specific economic and security objectives to increasing regional security and opening democratic space. These interviews with U.S. ambassadors highlight the ways in which PEPFAR has bolstered this broader work. Government-to-government engagement focused on addressing HIV often strengthens relationships and builds the capacity to address other, more contentious issues, such as human rights for marginalized populations and military readiness in regions affected by terrorist cells and activities. PEPFAR has also enabled much greater U.S. engagement with more diverse and broader swaths of society in partner countries, from marginalized populations, to religious and tribal leaders, to youth and emerging leaders.

Diplomacy, as articulated in the United States' National Security Strategy, “is indispensable to identify and implement solutions to conflicts in unstable regions of the world short of military involvement. It helps to galvanize allies for action and marshal the collective resources of like-minded nations and organizations to address shared problems.”¹⁶ Strong relationships, nurtured through robust diplomatic engagement, are essential for the United States to maintain its position in the world and secure allies for international engagement, especially as other state actors seek to compete with America for allies and influence. PEPFAR has proved itself to be an invaluable tool to help build and strengthen these relationships. As Defense Secretary Gen. James Mattis famously said, “If you don't fund the State Department fully, then I need to buy more ammunition.”



PEPFAR AND EBOLA: BUILDING BLOCKS FOR STRATEGIC HEALTH DIPLOMACY

International threats arise not only from unstable states and rogue actors, but from infectious diseases that do not respect borders. This is exactly what happened during the 2014 West Africa Ebola outbreak that ultimately spread to the United States. PEPFAR's role in building broader global health security, including the response to outbreaks such as Ebola, provides a less explored lens through which to view the broader impacts of the program. The case study below demonstrates the additional benefits of PEPFAR, in which the key elements of effective SHD—including addressing clearly defined goals, real need, and building capacity with long-term commitment—benefited global health security in a disease state other than HIV.

In particular, PEPFAR investments translated into capacity-building in the higher PEPFAR investment countries of Nigeria and Uganda, which worked to prevent and respond to Ebola in ways that were distinct from countries with low PEPFAR investment. Long-term PEPFAR investments in laboratory capacity and human resources to fight HIV directly helped to halt Ebola in those countries. Though these were by no means the only investments, they played a critical role in building the foundation for epidemic outbreak response.

The 2014 Outbreak

In 2014, Ebola hit West Africa with devastating consequences. More than 11,000 people lost their lives in Liberia, Sierra Leone, and Guinea in an epidemic that lasted two and a half years and resulted in severe socioeconomic effects and instability.

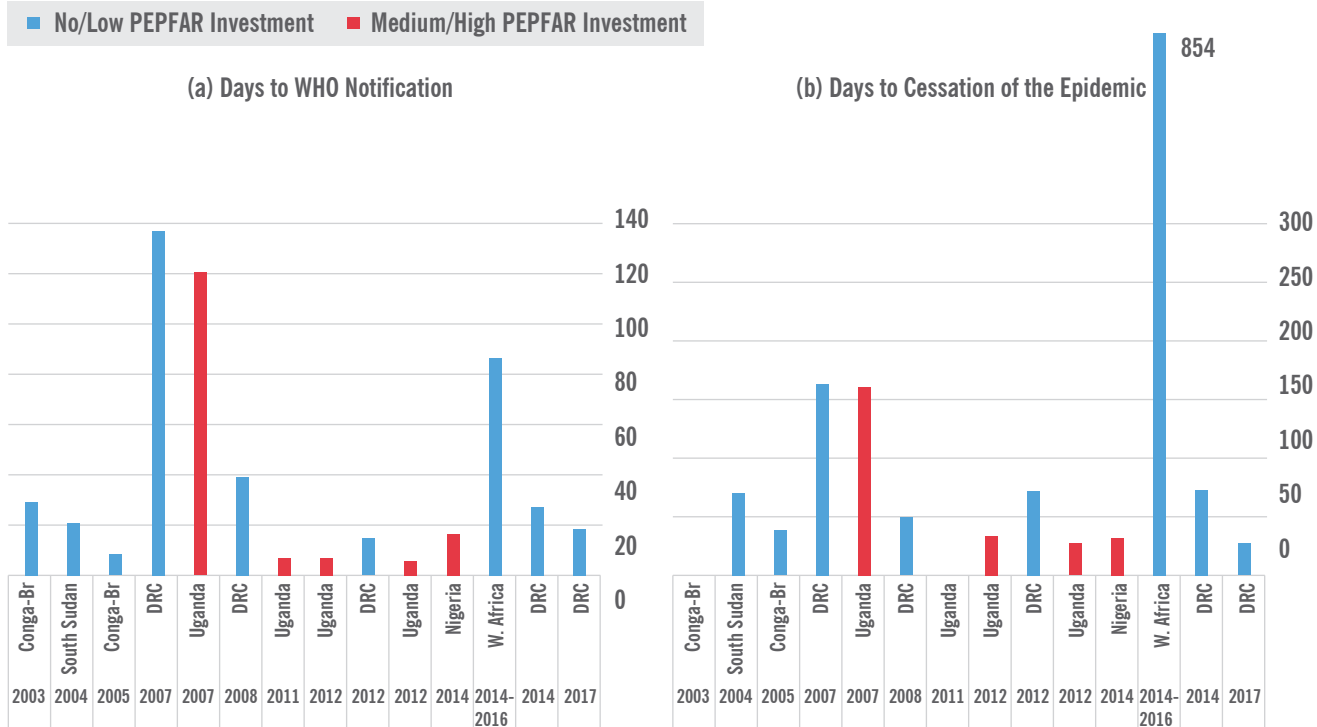
From the first suspected case on December 26, 2013, it took almost three months before the WHO was officially notified—at which point the epidemic was already out of control.⁶⁹ Previous Ebola outbreaks had been stopped principally through three key efforts:

- Laboratory testing to identify suspected cases;
- Exhaustive contact tracing in communities to identify all those who may have been infected and follow them for 21 days; and
- Rapid coordination of isolation and treatment.^{70,71}

Experience suggests that transmission can be interrupted within two to three weeks of an effective response.⁷² In the 2014 outbreak, however, the lack of regional capacity was immediately evident. There was remarkably little capacity to conduct contact tracing, and the three hardest hit countries lacked laboratory capacity to diagnose Ebola, resulting in substantial delays in sample transport, testing, and reporting.⁶⁹ This lack of capacity extended well beyond the health sector, in part due to legacies of recent and devastating civil wars.

The experience in Liberia, Sierra Leone, and Guinea is in sharp contrast with the experience in countries where PEPFAR has invested heavily to build disease-response capacity—in particular, Nigeria and Uganda. Figure 13 shows all outbreaks of Ebola since 2003. Uganda has been able to respond quickly and effectively when compared with both the outbreaks in West Africa and in the Democratic Republic of the Congo, which, like Uganda, have each experienced regular epidemics. Nigeria, meanwhile, quickly contained Ebola when it spread to Lagos during the 2014 outbreak. Figure 13 shows that capacity builds over time—that early instances of Ebola in a country often present a particular challenge, and it takes a long time to gain control. In Uganda, for example, the 2007 outbreak was particularly challenging—but in subsequent outbreaks, the country has been able, through PEPFAR-funded capacities, to respond quickly.

Figure 13. Relationship Between PEPFAR Investment and Effectiveness of Ebola Response



Note: Lag in notification and time to epidemic cessation (a) time (days) between the first case of Ebola and the moment when WHO was notified—a measure of how effectively countries can identify the disease and mount a response; (b) length (days) of the epidemic from the first case to the declared end.

Source: World Health Organization; Centers for Disease Control and Prevention⁷³

The Examples of Nigeria and Uganda

On July 20, 2014, a critically ill patient arrived in Lagos, Nigeria on a commercial flight from Liberia and collapsed at the airport upon landing. He was rushed to medical care and died five days later. During that time, he exposed Ebola to many fellow travelers and medical staff, including the heroic lead physician, Dr. Ameyo Adadevoh, whose astute diagnosis and leadership helped contain the virus—to which she later succumbed. One of those infected traveled on to the city of Port Harcourt, where the virus spread to a second major metropolis.

Lagos is Africa’s largest city, and one of the most densely populated on the planet, with more than 21 million people. The arrival of Ebola sparked widespread fear that the infection could trigger a rapid global spread—seeding an epidemic, as with Polio in the recent past.⁷⁴ This was compounded by Nigeria’s large and mobile population, cultural complexities, and vast geography, as well as the likelihood that a severe outbreak could have crippling socioeconomic and destabilizing effects in a region with numerous terrorist cells.

Fortunately, these fears were not realized. Instead, a remarkable epidemic response was mounted over the ensuing months, ultimately containing the epidemic to just 19 total cases.⁷⁵ While the role of capacities developed through other efforts, like Polio eradication, have been well documented, the role of PEPFAR funding has received less attention.⁹ In fact, PEPFAR funding provided two indispensable capacities that helped contain the Ebola epidemic in Nigeria: the Field Epidemiologic and Laboratory Training Program (FELTP) and laboratory capacity at Lagos University Teaching Hospital.

The Nigeria FELTP, based on the Centers for Disease Control and Prevention’s (CDC) Epidemiologic Intelligence Service “disease detectives” training, was started in 2008 with \$3.25 million in PEPFAR funding, and includes a two-year hands-on training program that has been adapted throughout the world.⁷⁶ In 2014, the center of Nigeria’s response was the Ebola Emergency Operations Centre, which quickly set up six specialist teams to tackle surveillance, case management, laboratory service, social mobilization, coordination, and point-of-entry response. Most of the team leaders were graduates of FELTP, and more than 100 graduates ultimately helped lead the field teams that conducted contact tracing. These teams eventually



expanded to 1,800 people, and over the course of two months, they conducted more than 18,500 household visits, tracing contacts and meticulously checking for signs of Ebola for 21 days per contact.⁷⁶ World-class epidemiological detective work eventually linked all Ebola cases in Nigeria back to either direct or indirect contact with the air traveler from Liberia—with contact tracing reaching 100 percent in Lagos and 99.8 percent in Port Harcourt.⁷⁵ Local expertise was critical in this effort, which was possible due to PEPFAR investments.⁷⁵

Second, the PEPFAR program funded the laboratory capacity that was essential to Nigeria’s response. Unlike in other parts of West Africa, when Ebola arrived in Lagos, the city had a “first-rate” virology laboratory staffed and equipped to promptly diagnose cases.⁷⁵ Most of the laboratory-confirmed cases in Nigeria were diagnosed by reverse transcription PCR at Lagos University Teaching Hospital (LUTH)—laboratories built with PEPFAR funding.⁷⁷ Between 2005 and 2014, PEPFAR spent more than \$314 million building, staffing and stocking laboratories in Nigeria. PEPFAR funds bought the very first lab-quality freezer for LUTH and then went on to support the purchase of equipment, training, and staffing to do CD4 (or “T cell”) count testing for HIV and then amplified nucleic acid testing—capacity that formed the backbone of LUTH’s ability to provide rapid, accurate testing for Ebola in Nigeria.⁷⁸ Rather than chartering a plane to fly samples out of the city or even the country—as was necessary in other parts of the region—or building new labs to respond to Ebola, Nigeria used PEPFAR-funded labs to provide quick and accurate diagnoses of suspected cases.

As in Nigeria, PEPFAR’s investments in Uganda provided the organizational capacity and support to enable an effective response to Ebola and other hemorrhagic fevers like the Marburg virus. Uganda had one of the first FELTP programs in Africa, dating back to well before PEPFAR—but the passage of PEPFAR substantially expanded and sustained this support.

One key example of the value of PEPFAR’s trained boots on the ground was seen during the 2012 Ebola outbreak in Uganda’s Kibaale district. At the time, the Makerere Infectious Diseases Institute (IDI) was the only non-governmental organization (NGO) with substantial presence in the district (Figure 14). IDI, which began as a public-private partnership in 2002, is an indigenous Ugandan NGO that has become one of the most effective organizations in the region, in large part due to PEPFAR funding. When Ebola was detected in Kagadi Hospital in Kibaale, it was IDI and hospital staff who together worked to mount the first response. For example, when the public sector was slow to respond, IDI procured the first personal protective equipment and provided staff and transportation to initiate contact tracing. Because they were already in all sectors of the district, IDI was key in mobilizing and educating the community through activities that ultimately proved essential to rapidly containing the outbreak.

Figure 14. Infectious Diseases Institute at Makerere University, Kampala, Uganda



Source: Nikki Smith

PEPFAR and Global Health Security Funding Provide a Key Opportunity

The West Africa Ebola epidemic significantly destabilized Sierra Leone, Liberia, and Guinea.⁷⁹ Had the same happened in Nigeria, with its critical security and economic position, or in Uganda, a key U.S. ally in the region, U.S. security and diplomatic objectives would have suffered a devastating blow. While PEPFAR is not in itself sufficient to address the myriad global health security challenges presented by epidemic outbreaks, the examples of Nigeria and Uganda demonstrate the program's vital secondary effects.

Of note is how recent CDC funding for global health security has paired particularly well with PEPFAR funding—synergistically building from the base of PEPFAR to improve systems in ways that either program alone would not have been able to do. PEPFAR provides critical—and, at times, decisive—building blocks for response efforts to infectious disease outbreaks, developing assets that can be mobilized beyond HIV, even as the program stays tightly focused on its anti-HIV mission. The secondary impacts of PEPFAR funding can also help avoid additional costly U.S. interventions. For example, the CDC's Ebola response in West Africa included the deployment of more than 2,200 staff to affected countries and heavy investment in building new treatment facilities, along with the “bread-and-butter” work of case tracking and building labs.⁸⁰ In Nigeria, this effort was far more effective, efficient, and far less expensive than it would have been without PEPFAR. PEPFAR now invests more than \$700 million annually above-site in health systems that are required not only for effective HIV/AIDS services but also for the global health security agenda.²⁰



The Way Forward

A renewed examination of the wide-ranging impacts of PEPFAR again demonstrated that U.S. investment in this vital program not only benefits the countries it serves; it also benefits the United States.

PEPFAR's public health benefits are undeniable. The program has made historic progress against the HIV epidemic and currently supports more than 14 million people on treatment. In that strict sense, PEPFAR has been a model for what is possible in global health. But even more than that, research shows that PEPFAR's secondary effects have made critical contributions to U.S. diplomatic objectives in the realms of peace and security.

PEPFAR's programs also restore the economic productivity of those infected or affected by HIV, and they protect families, communities and societies from destabilizing health shocks. This impact is evident in the increased GDP and worker productivity of partner countries. PEPFAR's support has been critical to the restoration of economic growth in many of the countries hardest hit by HIV; and it continues to support their development as U.S. trading partners.

PEPFAR has now consistently been associated with improvements in public opinion of the United States in diverse regions of the world, both because of its visible health effects and through the efforts of America's diplomatic corps. Improved public opinion, in turn, builds goodwill to collaborate with the United States on important strategic objectives.

PEPFAR investment is also associated with dramatic improvements in key indicators of governance, including government effectiveness, regulatory quality, and rule of law. These associations are likely driven by close government-to-government partnership, diplomatic engagement, and by modeling good leadership through the routine use of data, as well as the inclusion of governments and civil society in decision-making. Improvements in governance have led to increased regional stability, which is critically important for U.S. national security interests.

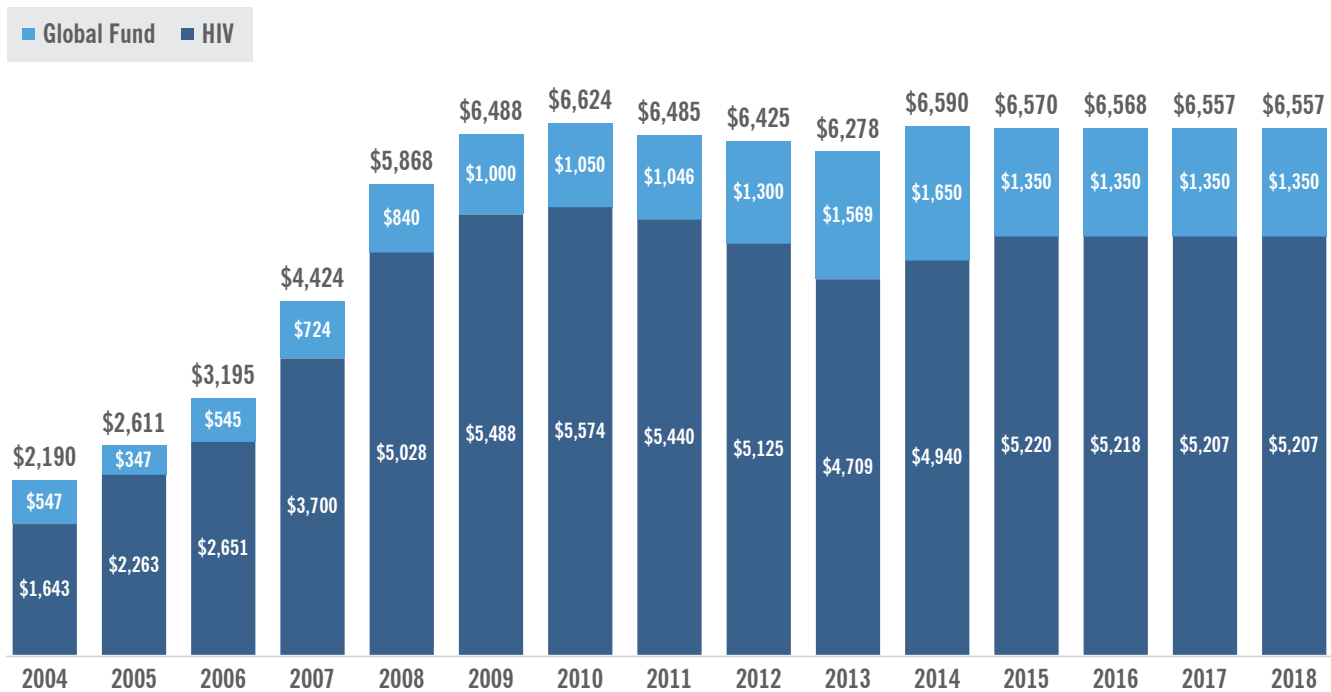
Finally, because of PEPFAR's magnitude and mission, the program broadens and deepens U.S. diplomatic engagement in some of the most challenging environments in the world. Ambassadors report that PEPFAR has opened doors, allowing them to engage with partner countries on difficult issues well beyond the scope of PEPFAR and enabling diplomatic staff to build relationships with government entities and civil society leaders that they would otherwise never have encountered. And it has been successful in encouraging governments to invest much more substantially in their own HIV responses as well as broader health responses, which is key to sustaining successful public health. PEPFAR not only reduces health threats to young people, who are part of the growing youth bulge; it provides broader benefits for these youth by helping them contribute to society, rather than becoming a destabilizing force.

So, where does the United States go from here? There is tremendous potential to build even greater goodwill, stability, and security through greater investments in PEPFAR. In its original report, BPC identified a long-term funding commitment as a critical element of PEPFAR's future success. As discussed above, PEPFAR has become a far more efficient and effective program, achieving ever-improving results even in an environment of flat funding (see Figure 15).

However, there are signs that PEPFAR's ability to continue to scale up and reach epidemic control under existing funding levels may be faltering, particularly in the face of a youth bulge and expanding populations. For example, in the most recent Country Operational Plans, pilot programs for girls and young women could not be expanded due to lack of funding.⁸¹ This development could undermine the progress achieved to date and could put an end to achieving epidemic control. It could also eliminate the secondary benefits of SHD.

In light of these facts, the United States must remain committed to robust investments in PEPFAR and the Global Fund.

Figure 15. U.S. Funding for PEPFAR (In Millions) FY2004–FY2018



Source: Kaiser Family Foundation⁸²

Meanwhile, these same lessons apply to emerging threats that have as much or more potential to destabilize nations as HIV did 15 years ago. Based on the experiences of PEPFAR, and building from the findings of the 2015 report, there are three main criteria that should be considered when evaluating and prioritizing these investments: (1) the prevalence of the condition or the rapidity of epidemic growth (e.g., Ebola); (2) its treatment potential, or the potential for containment through prevention strategies; and (3) the strategic value of stricken areas. PEPFAR demonstrates that modest U.S. investment can yield substantial health benefits as well as significant secondary benefits for U.S. diplomacy and national security.

With this in mind, the United States should evaluate numerous other targets for their potential as examples of SHD. For example, both hepatitis B and hepatitis C are causing largely unchecked morbidity and mortality in many areas of the world, even though there is an effective vaccine for hepatitis B and treatment for both conditions. Global health security investments to protect against threats such as Ebola and other emerging pathogens are areas of great potential for health impact and SHD. Additionally, non-communicable diseases (NCDs) also have great potential for intervention, although this could be an undertaking of enormous proportions.⁸³ The United States might consider certain areas of specialty and focus, particularly as they relate to countries with the greatest strategic value to U.S. foreign policy and security. The United States should also consider collaborations with private-sector organizations already engaged in this space.^a This is an especially good moment, in advance of the Third United Nations High-Level Meeting on NCDs scheduled for September 2018.

^a Private-sector organizations such as Bloomberg Philanthropies and Resolve to Save Lives are making a difference on NCDs through significant investments. Complementary public-sector investments could be conducted in a way that meet the attributes of SHD outlined at the beginning of this report, including having clearly defined goals, adaptive policies, real need, visible impacts, global goals, local focus, long-term commitment, capacity building, and transparency.



SPOTLIGHT 2: EXPANDING SHD TO CERVICAL CANCER

PEPFAR not only reduces health threats to young people, who are part of the growing youth bulge; it also provides broader benefits for these youth by helping them productively contribute to society, rather than becoming a destabilizing force. BPC is pleased to see that the Trump administration is working with partners to build new health responses from the PEPFAR platform, in this case with the ambitious goal of eliminating cervical cancer.

We should never be afraid of more information, more assistance, more cooperation. One example of this is the U.S. PEPFAR program's renewed partnership with the George W. Bush Institute and UNAIDS to end AIDS and cervical cancer among HIV-positive women in Africa. Through this partnership, the U.S. is investing over \$30 million in eight African countries in support of the WHO director-general's global call for action toward the elimination of cervical cancer.

—Health and Human Services Secretary Alex Azar, World Health Assembly, May 22, 2018

Cervical cancer is a high-profile scourge, and its prevention through better screening, treatment, and availability of human papillomavirus vaccines would have massive benefits, especially when considering the number of new adolescent girls and young women expected with the youth bulge. If PEPFAR and other existing U.S.-backed global health programs—such as the President's Malaria Initiative, family planning, and maternal child and newborn health—are performed with the principles of strategic health diplomacy in mind, the United States and U.S. partner nations will reap much more than they sow in societal benefits.

Simply put, SHD, as illustrated by PEPFAR, leads to goodwill that encourages greater engagement with the United States around mutual strategic objectives, strengthened economies that support the growth of potential trading partners, better local governance and stability, and additional tools for diplomatic engagement. Even without these secondary effects, PEPFAR is a remarkable example of a program that has resulted in historic public health benefits from a relatively small investment of taxpayer dollars. BPC strongly encourages policymakers to make a robust and sustainable investment in PEPFAR going forward—and to look to SHD as an effective tool for advancing U.S. interests across the globe.



Source: Nikki Smith



Appendix A: Methodology

QUANTITATIVE ANALYSES

The relationship between public opinion towards the United States and the level of cumulative PEPFAR funding received from 2004-2016 was evaluated as follows: Countries classified as low- or middle-income and with an HIV prevalence greater than 0.1 percent were stratified based on per capita funding received by PEPFAR from 2004-2016. Those receiving at least \$75 (the mean) are categorized as “high;” those that received less than \$75 but at least \$28 (the median) are categorized as “medium;” those receiving more than zero and less than \$28 per capita are categorized as “low;” and those receiving \$0 per capita were categorized as “no.” The “high” and “medium” categories were collapsed into “medium and high,” and “low” and “no” categories were collapsed into “low and no” PEPFAR investment countries. Country lists are on the BPC website.

Time-series cross-sectional regressions, controlling for all factors included in Goldsmith (2014)⁴ still demonstrate a positive and significant association between cumulative PEPFAR funding per capita and approval of U.S. leadership performance. The dependent variable for all models is the natural log of the average of approval divided by disapproval in each country, for the years $t+1$ and $t+2$. The key independent variable is the natural log of the cumulative amount of PEPFAR funding per capita, adjusted for inflation, with most recent years weighted most, and prior years weighted less.

MULTIVARIATE ANALYSIS

The same approach to categorizing countries based on level of PEPFAR expenditure, as in Goldsmith et al. (2014)⁴, was used for the analyses of indicators of health, economics, and governance variables described in the report and appearing as figures. One of the key questions raised about previous analyses of the impact of PEPFAR on these indicators—including our previous report—has been whether missing factors might truly explain the relationships observed. It has been noted that many of PEPFAR’s focus countries have experienced less instability and political violence in recent years than some other countries that have not been PEPFAR priorities. The effect of other aid programs might also explain these impacts—support, for example, to the health sector as a whole. To address these questions, we constructed an additional panel dataset using the same per capita PEPFAR expenditure data and a second more stringent sample of only the top 25 prevalence countries as of 2004, at the start of PEPFAR, which included a good variety of countries in terms of level of development and governance. BPC then used these same governance indicators as outcome variables and, as controls, two key measures. The first measure was “Political Stability and Absence of Violence” from the World Bank’s Worldwide Governance Indicators, which compiles data from a wide variety of sources on the likelihood of political instability.⁵⁷ The second measure was the external health expenditure per capita data from WHO’s Global Health Observatory to control for total health aid spending.⁸⁴ BPC estimated the effects of PEPFAR spending controlling for these variables through an ordinary least squares regression, using a random effects model. The results with standard errors are on the BPC website.

QUALITATIVE ANALYSES

The sections of this report on “enhanced diplomatic engagement” and on the global health security impacts of PEPFAR were based on qualitative research conducted between January and June 2018. BPC staff conducted in-depth interviews with eighteen key officials, including current and previous U.S. ambassadors to countries with significant PEPFAR programs as well as with leading health officials engaged in the Ebola response and PEPFAR.

These interviews were part of a process-tracing effort that included archival research—with documents from PEPFAR, national governments, NGO reports, and published literature. The goal was to better understand the causal paths for key claims in this report through causal process observations.⁸⁵ By exploring PEPFAR’s most effective processes, BPC staff were able to explore various alternative explanations, increasing confidence that the findings in this report are truly causal.



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