



PEPFAR

2017 ANNUAL REPORT TO CONGRESS



“HIV/AIDS is one of the great medical challenges of our time... Across Africa, this disease is filling graveyards and creating orphans and leaving millions in a desperate fight for their own lives. They will not fight alone... The legislation I sign today launches an emergency effort that will provide \$15 billion over the next five years to fight AIDS abroad... In the face of preventable death and suffering, we have a moral duty to act, and we are acting.”

President George W. Bush
PEPFAR Bill Signing, May 27, 2003

CONTENTS

- 4 EXECUTIVE SUMMARY**
- 21 APPENDIX A:** How PEPFAR Harnesses Data for Maximizing Cost-Effectiveness and Impact — Controlling the HIV/AIDS Pandemic
- 27 APPENDIX B:** How PEPFAR Documents Results
- 30 APPENDIX C:** Global Trends in New HIV Infections
- 37 APPENDIX D:** HIV Infections Averted Due to PEPFAR and Global HIV Response
- 39 APPENDIX E:** Global Prevalence — Refining PEPFAR’s Impact and Progress Toward Epidemic Control and Implications of Out-Year Costs
- 43 APPENDIX F:** Rates of Adherence and Retention
- 45 APPENDIX G:** HIV/AIDS Guidance — New Guidelines: Impact on the Epidemic and Policy Change as Part of Shared Responsibility
- 47 APPENDIX H:** HIV Burden and Treatment Response
- 53 APPENDIX I:** Supportive Care
- 54 APPENDIX J:** PEPFAR and Prevention Interventions
- 56 APPENDIX K:** Prevention of Mother-to-Child Transmission (PMTCT)
- 58 APPENDIX L:** Preventing New HIV Infections in Young Men — Voluntary Medical Male Circumcision (VMMC)
- 61 APPENDIX M:** Prioritizing Prevention of New HIV Infections in Women, Adolescent Girls, and Children
- 70 APPENDIX N:** Pediatrics; Orphans and Vulnerable Children — Focusing the Program Toward Achieving an AIDS-free Generation and Healthy Children
- 74 APPENDIX O:** Driving a Sustainability Agenda with Country Partners
- 79 APPENDIX P:** Strengthening Program Cost Effectiveness
- 88 APPENDIX Q:** Engaging Partner Governments and Civil Society
- 90 APPENDIX R:** Engaging Faith-Based, Locally Based, and Minority Partners
- 96 APPENDIX S:** Engaging International and Nongovernmental Partners
- 98 APPENDIX T:** Addressing the Co-Infections and Co-Morbidities of HIV/AIDS
- 102 APPENDIX U:** Strengthening Health Training and Data Systems
- 103 APPENDIX V:** Evaluation Standards of Practice
- APPENDIX W:** Supporting Tables available on <http://www.pepfar.gov/>
- 107 FIGURES & TABLES IN THIS REPORT**
- 109 GLOSSARY**

■ **FRONT COVER AND INSIDE FRONT COVER PHOTO**
A mother and her children in Malawi.

CREDIT: James Pursey/EGPAF



President George W. Bush signs the Tom Lantos and Henry J. Hyde United States Global Leadership Against HIV/AIDS, Tuberculosis, and Malaria Reauthorization Act of 2008. He is joined by members of Congress including Rep. Smith (R-NJ), Rep. Ros-Lehtinen (R-FL), Sen. Biden (D-DE), Sen. Lugar (R-IN), Rep. Pence (R-IN), Sen. Kerry (D-MA), Sen. Enzi (R-WY), Rep. Lee (D-CA), Rep. Berman (D-CA), Rep. Payne (D-NJ), and Annette Lantos.

EXECUTIVE SUMMARY

Since its inception in 2003, the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) has received strong bipartisan support in Congress and through administrations, and it has been reauthorized twice with significant majorities. The United States (U.S.) is unquestionably the world’s leader in responding to the global HIV/AIDS crisis, and the work that PEPFAR does has changed the very course of the pandemic. Originally conceived as a compassionate effort to save the lives of those in countries hardest hit by HIV/AIDS with urgently needed treatment and care, PEPFAR is now also undertaking the challenge of actually controlling the pandemic.

Through the PEPFAR platform, the U.S. has accelerated the progress toward a world more secure from infectious disease threats. We have demonstrably strengthened the global

capacity to prevent, detect, and respond to new and existing risks. PEPFAR’s investments in countries with sizable HIV/AIDS burdens bolster their ability to swiftly address Ebola, avian flu, cholera, and other outbreaks, which ultimately enhances global health security and protects America’s borders. These invaluable lessons and experiences will continue to inform and improve the U.S. government’s response to unforeseen health crises.

When signing PEPFAR into law in May 2003, President George W. Bush remarked that “HIV/AIDS is one of the great medical challenges of our time...Across Africa, this disease is filling graveyards and creating orphans and leaving millions in a desperate fight for their own lives. They will not fight alone... The legislation I sign today launches an emergency effort that will provide \$15 billion over

Figure A. PEPFAR – Achieving Greater Impact on Current Investments

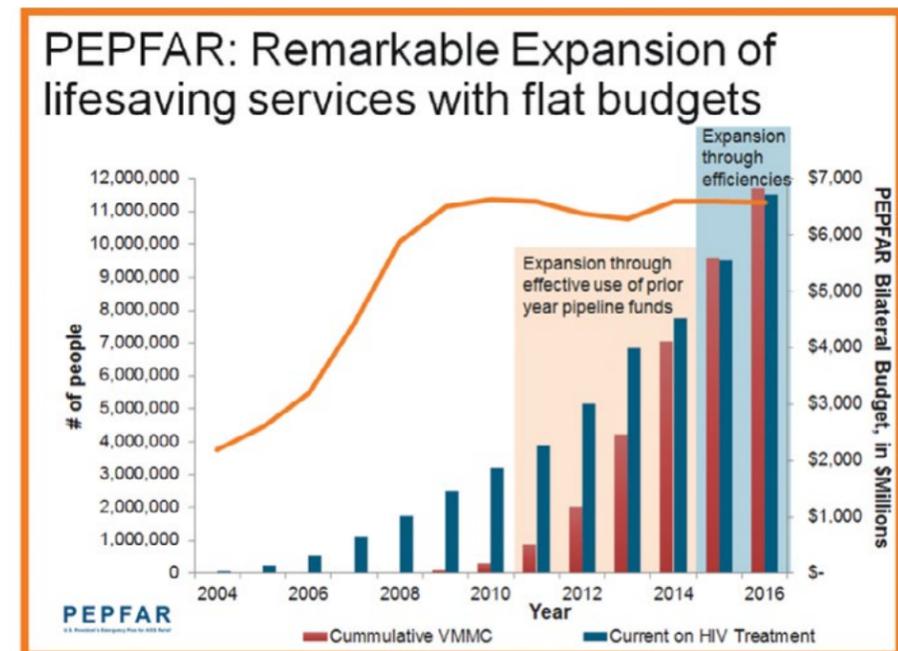


Figure B. PEPFAR — Latest Results, 2016



the next five years to fight AIDS abroad... In the face of preventable death and suffering, we have a moral duty to act, and we are acting."

PEPFAR efficiently and effectively invests U.S. taxpayer dollars to save millions of lives and to change the very course of the epidemic. Our relentless commitment to accountability has allowed the program to dramatically expand its results and impact in a budget-neutral environment (Figure A). In 2014, PEPFAR completely realigned and refocused the program in every country, employing a new business model to save more lives and to better control the epidemic. These critical program and business process improvements included targeting investment using granular, site-level data; rigorous partner management to increase performance and efficiency; and intensive quarterly monitoring of the entire program. Along with its increased focus on transparency, these efforts have made PEPFAR a model for development programs everywhere; we are achieving significantly more impact without increases

in budget, providing a cost-effective model for foreign assistance.

Above all, PEPFAR is an expression of the compassion and generosity of the American people. It is the iconic brand of U.S. government engagement in health, development, security, and diplomacy, unparalleled in its capacity to deliver clear, measurable, and transformative impact. PEPFAR has transformed the global

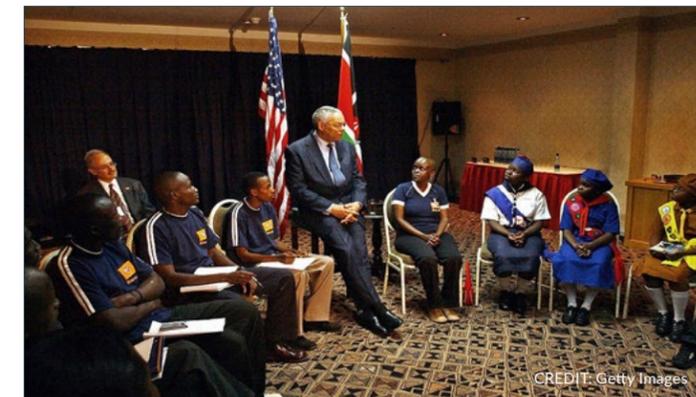


■ Rep. Henry Hyde (R-IL) and Rep. Tom Lantos (D-CA) present the U.S. Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003 to the House Rules Committee on April 30, 2003.

HIV/AIDS response (Figure B) and is currently supporting nearly 11.5 million people with life-saving antiretroviral treatment (ART), exceeding our 2016 target of 11.4 million. This is a 50 percent increase since 2014. With PEPFAR support, nearly 2 million babies have been born HIV-free to pregnant women living with HIV—almost twice as many as in 2013—and their mothers have been kept healthy and alive to protect and nurture them. When you consider that there were fewer than 50,000 people on treatment in sub-Saharan Africa when PEPFAR began, the magnitude of this work becomes clearer.

PEPFAR has recently increased investments in HIV prevention, particularly among young people. We are ensuring that every girl can grow up into a Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe woman through our DREAMS public-private partnership with the Bill & Melinda Gates Foundation, Girl Effect, Johnson & Johnson, Gilead Sciences, and ViiV Healthcare. In its first year of implementation, DREAMS reached 1 million adolescent girls and young women (AGYW), ages 15–24, with interventions that go beyond the health sector to address the structural drivers that increase girls' HIV risk, including poverty, gender inequality, sexual violence, and lack of access to an education. In 10–14-year-old young girls, the program has focused on risk avoidance and strengthening families and communities to embrace and protect their girls. PEPFAR has also provided more than 11.7 million voluntary medical male circumcision (VMMC) procedures to reduce the risk of HIV acquisition in men and transmission to young women—exceeding our 2016 target of 11.2 million and an 80 percent increase since 2014.

Since the beginning of PEPFAR, the program has focused on orphans and vulnerable children (OVC) and children who are HIV-positive.



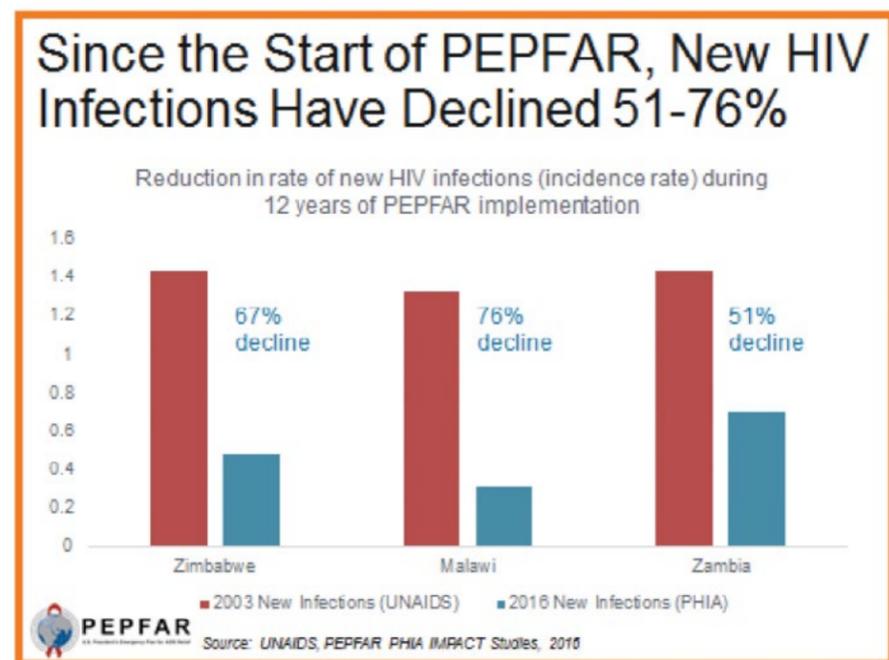
■ Former U.S. Secretary of State Colin Powell speaks with youth on HIV/AIDS in Kenya.

Since 2014, we have almost doubled the number of children that we support on treatment—reaching nearly 1.1 million—thanks in large part to the PEPFAR-led public-private partnership on Accelerating Children's HIV/AIDS Treatment (ACT). We are providing critical care and support for nearly 6.2 million OVC—including nearly 4.7 million children and adolescents under 18 years of age—mitigating the physical, emotional, and economic impact of HIV/AIDS on them while ensuring they are linked to core HIV treatment and prevention services.

With the support of PEPFAR, modeled data suggest that more than 11 million AIDS-related deaths and nearly 16 million HIV infections have been averted worldwide since PEPFAR began. With our latest results, PEPFAR is on track to meet the bold targets set by President Obama in 2015: by the end of 2017, 12.9 million people will be on treatment, 13 million VMMCs will have been performed for HIV prevention, and there will be a 40 percent reduction in new HIV infections among AGYW within the highest burden geographic areas of 10 African countries.

On World AIDS Day 2016, 35 years since the beginning of the HIV/AIDS epidemic, PEPFAR announced the results of the Public Health Impact Assessments, which show the first

Figure C. New Infections Have Declined 51–76% Since the Start of PEPFAR



evidence of the epidemic becoming controlled in three key African countries: Malawi, Zambia, and Zimbabwe. These countries with continued focus are approaching a point where HIV transmission would effectively be controlled among adults and babies, and they have reduced new HIV infections by 51–76 percent since the start of PEPFAR (Figure C). They currently have also achieved an average of 65 percent community viral load suppression among all HIV-infected adults, nearing the 73 percent target (Figure D) set by the Joint United Nations Programme on HIV/AIDS (UNAIDS) as part of its 90-90-90 by 2020 treatment goals.¹ In 2014, recognizing that there was only a five-year window to change the course of the epidemic, UNAIDS challenged the global community to achieve the 90-90-90 goals: 90 percent of people living with HIV know their status, 90 percent of people who know their status are accessing treatment, and 90 percent of people on treatment have suppressed viral loads. With continued aggressive focus, quarterly analysis, and partner alignment for maximum impact, PEPFAR is poised to help control the epidemic in 10 African countries over the next four years. Beyond saving an untold number of lives, this will reduce the out-year costs required to sustain the HIV/AIDS response. In less than two decades of commitment and funding, the pandemic will have progressed from tragedy to control.



U.S. Secretary of State Condoleezza Rice greets the crowd during a visit to Tanzania.

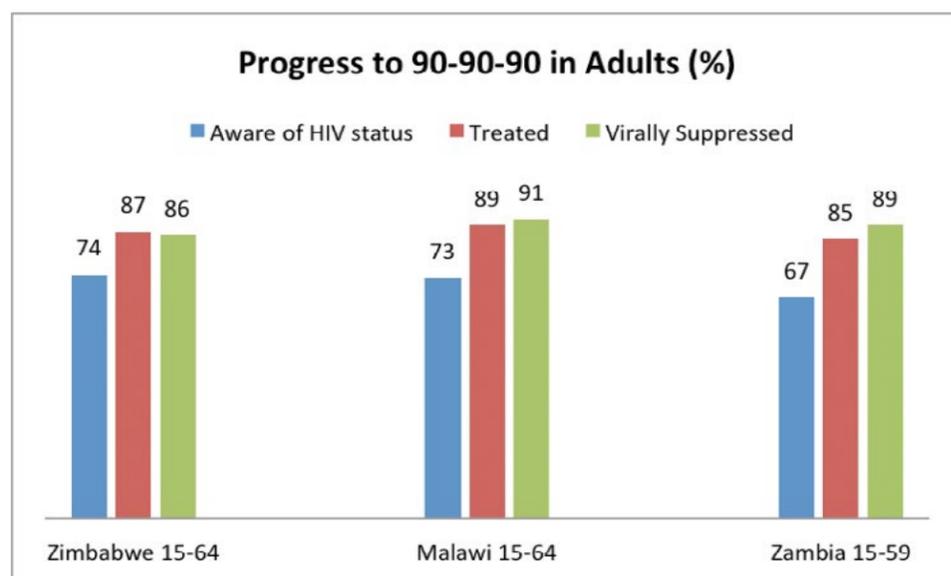
PEPFAR’s impact extends well beyond the health sector. The program has helped advance economic development, particularly in sub-Saharan Africa, through accelerating growth and enlarging potential markets for American goods and services. We have assisted in stabilizing countries and communities, creating returns on investment that will continue to pay dividends across multiple sectors long into the future. PEPFAR has powerfully and unequivocally proven that investing in health is not only the right thing to do, but also the smart thing to do. PEPFAR has paved the pathway for effective and impactful foreign assistance by holding to the principles of transparency, accountability, and impact. We know that with continued focus we can control this epidemic.

The World Before PEPFAR

Fifteen years ago, controlling this pandemic was unimaginable. Reports from the front lines of the epidemic, particularly in sub-Saharan Africa, were dire. In many countries, an HIV diagnosis was a death sentence, and entire families and communities were falling ill. Gains in global health and development were being lost. In the hardest-hit regions of sub-Saharan Africa, infant mortality had doubled, child mortality had tripled, and life expectancy had dropped by 20 years. The rate of new HIV infections in the highest burden regions

¹ UNAIDS. (2014). 90-90-90: An Ambitious Treatment Target to Help End the AIDS Epidemic. Available at http://www.unaids.org/sites/default/files/media_asset/90-90-90_en_0.pdf

Figure D. Progress to 90–90–90 in Adults



PEPFAR has built and strengthened the capacity of country-led responses in both government and civil society while bringing key partners to the table. We have fostered collaboration across the whole of the U.S. government, partner governments, and global partners, including multilateral institutions, civil society, faith-based organizations (FBOs), the private sector, philanthropic organizations, and people living with HIV.



■ Former U.S. Secretary of State Hillary Rodham Clinton speaks with a group of women during her trip to Tanzania.

was exploding, and people were getting sick and dying during the most productive years of their lives. In 2003, fewer than 50,000 people in sub-Saharan Africa had access to lifesaving treatment, and millions of babies were becoming HIV infected.

Despite early efforts to provide HIV prevention, care, and treatment services, at that time the epidemic continued to rage unabated. Life-saving medications that might have turned the tide were inaccessible and unaffordable to virtually all but the very richest. Further, many experts assumed that people living with HIV in many parts of the world would be unable to sustain the complicated dosing regimens required for effective treatment.

The U.S. Congress passed PEPFAR with strong bipartisan support just four months after President George W. Bush’s call to action in his 2003 State of the Union address. With this unprecedented investment, the bright light of hope began to shine across the most devastated regions of the world. At the time of its launch, PEPFAR was aptly named: The global HIV/AIDS epidemic was an emergency. By 2003, more than 20 million men, women, and children

had died of AIDS-related illnesses in sub-Saharan Africa alone. They were mothers, fathers, teachers, doctors, nurses, police, and soldiers, and in the wake of their untimely deaths, 14 million children were left behind, without parents or communities to support them.

Controlling the Epidemic in 13 Total African Countries Over the Next Four Years

Today, thanks to PEPFAR and our partners, despair and death have been overwhelmingly replaced by hope and life. The HIV/AIDS epidemic

is not only becoming controlled in at least 3 African countries, but we are poised to control the epidemic in 10 African countries over the next four years. Ending the security threat posed by the epidemic and achieving an AIDS-free generation where no one is left behind is now possible, although it will not happen easily or automatically. We have the ability to finish what PEPFAR started, but it will take urgency, action, and focus. PEPFAR has made the impossible possible, and we are well positioned to do it again.

According to UNAIDS, nearly 37 million people are living with HIV globally; however, the number of those on treatment is currently 18.2 million. While treatment access has increased by more than 140 percent since 2010, there is still much more to do to ensure everyone is virally suppressed. We must continue to act decisively and strategically with our resources and to bring other donors and high HIV burden countries to the table; otherwise, we all risk an epidemic that rebounds beyond the global community’s capacity to respond.

The time to act is now. Every week, 40,000 people are infected with HIV globally, including 7,500 young women, 2,800 babies, and 21,000

people die of AIDS-related illnesses. In sub-Saharan Africa, AGYW are especially hard hit. Of all new HIV infections in adolescents in the region, nearly 75 percent are among females; they are up to 14 times more likely to contract HIV/AIDS than young men.

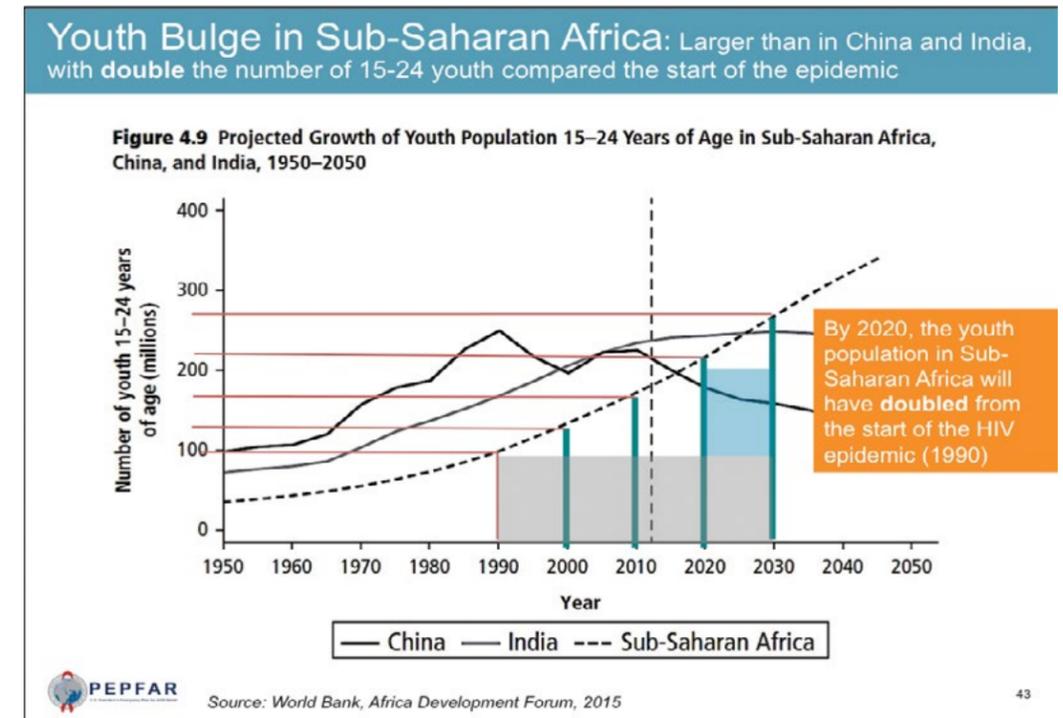
This is particularly concerning as the population of those aged 15–24 in sub-Saharan Africa will have doubled in size by 2020, reaching 200 million (Figure E). This “youth bulge”—comprising 100 million more young people in sub-Saharan Africa than we had in 1990—is largely due to our success in reducing under-five child mortality in many sub-Saharan African countries. The result: millions more young people are entering a time in life when they are most susceptible to HIV infection, often without an education or job opportunities. These demographic trends mean we must work hard just to keep up, and

we must work even harder and faster to stay ahead of the epidemic.

We have a narrow window to change the course of the pandemic and put the world on track to end AIDS by 2030, the target set by the global community when 193 countries adopted the 2030 Agenda for Sustainable Development and the Sustainable Development Goals. We must seize this historic opportunity to create the first AIDS-free generation in more than three decades.

The American people—as they have always done—are leading the way. We can make our limited resources twice as effective with respect to lives saved and infections averted as high HIV/AIDS burdened countries expand treatment eligibility to all persons living with HIV, while at the same time appropriately and aggressively implementing key recommendations for models of differentiated service

Figure E. Youth Bulge in Sub-Saharan Africa





Encouraging Girls to Dream

Nontokozo Zakwe, a 24-year-old woman from KwaZulu-Natal province in South Africa, grew up in one of the country's poorest villages. When her mother grew ill and was diagnosed with HIV, both Nontokozo and her mother knew very little about the virus or the lifesaving benefits of antiretroviral treatment.

"When I first found out my mother was HIV positive, I was scared, as at the time, many people were still dying," said Nontokozo.

To help her mother, Nontokozo began educating herself about the disease and started volunteering at a PEPFAR-supported community health organization supporting young people.

"I got so passionate about health promotion," said Nontokozo. "I thought I should start talking about it myself, especially to other young people who had not yet been infected. I think that if girls are empowered, mentored, and encouraged to stay in school—and at the same time to stay HIV free—they can be unshaken."

Nontokozo is now an ambassador for the PEPFAR-led DREAMS partnership, which is helping girls develop into Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe women across the highest-burden areas of 10 countries in sub-Saharan Africa.

As she says, "DREAMS is about just that—encouraging girls to dream."

delivery. Above all else, we must continue using data to drive decisions.

Delivering on the Vision

To control the epidemic and, ultimately, achieve an AIDS-free generation, we must sustain and expand our collective gains. Led by our strategic vision, *PEPFAR 3.0—Controlling the Epidemic: Delivering on the Promise of an AIDS-free Generation*, we are using data to do the right things, in the right places, in the right way, and right now. PEPFAR 3.0 outlines our strategy for reaching sustainable control of the HIV/AIDS epidemic through transparency, accountability, and impact. To deliver on this vision, PEPFAR is focused on five core priorities.

Adolescent Girls and Women: Creating Gender Equity

Every year, 390,000 AGYW are infected with HIV. This is more than 1,000 a day. Gender-based violence (GBV) is a significant reason why, affecting millions of AGYW. Girls who experience violence are up to three times more likely to be infected with HIV or other sexually transmitted infections. Violence Against Children (VAC) surveys (most supported by PEPFAR) in 11 countries found that an average of one in three young women reported their first sexual experience was forced (rape).

This is unacceptable, and PEPFAR has responded by empowering AGYW to protect their health and well-being, and helping them to pursue their dreams. In a public-private partnership with the Bill & Melinda Gates Foundation, Girl Effect, Johnson & Johnson, Gilead Sciences, and ViiV Healthcare, PEPFAR is driving the ambitious \$385 million DREAMS Partnership to help girls develop into Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe women. The complementary DREAMS Innovation Challenge is supporting locally based creative approaches to meet their unique needs, to further avoid and reduce the risk of HIV infection.

SPOTLIGHT

Public-Private Partnerships for Impact

PEPFAR is utilizing public-private partnerships (PPPs) for impact, identifying opportunities to capitalize on the private sector's core competencies, skills, and assets—with tremendous results. This may include leveraging private sector brands, distribution networks, marketing expertise, and business-minded, market-driven approaches—including opportunities for innovation.

Investing in Adolescent Girls and Young Women

» DREAMS is a comprehensive \$385 million partnership to support adolescent girls in becoming Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe women. It brings together PEPFAR, the Bill & Melinda Gates Foundation, Girl Effect, Johnson & Johnson (J&J), Gilead, and ViiV Healthcare to significantly reduce new HIV infections among adolescent girls and young women within the highest-burden areas of 10 sub-Saharan African countries.

DREAMS is unique because it leverages resources and expertise from private sector and philanthropic partners. For example, J&J has capitalized on its expertise in marketing its own consumer products to adolescent girls to help PEPFAR understand and better reach these girls with health messages and services.

Delivering on Our Commitment to Children

» The Accelerating Children's HIV/AIDS Treatment (ACT) initiative is a \$200 million joint investment by PEPFAR and the Children's Investment Fund Foundation to accelerate children's access to HIV/AIDS treatment (ART) in nine high-priority sub-Saharan African countries. As of September 2016, PEPFAR had supported nearly 1.1 million children on ART—a 97 percent increase since 2014—including 557,000 children in the ACT countries.

DREAMS has reached more than 1 million AGYW with critical, comprehensive HIV prevention services in high-burden geographic areas to reduce this risk, help them to know their HIV status, and ultimately prevent HIV. PEPFAR's goal is a 40 percent reduction in new HIV infections among AGYW within the highest burden areas of 10 sub-Saharan African countries by the end of 2017.

Across the board, PEPFAR disaggregates data by sex, age, and geography, in order to target and tailor our efforts to reach the specific needs of AGYW as they progress through their most vulnerable years.

Children: Delivering on Our Commitment

In 2015, 1.8 million children were living with HIV/AIDS and only half had access to ART. Without treatment, 50 percent of HIV-positive

children will die before their second birthday, and 80 percent before turning 5 years of age.

PEPFAR is the world's largest supporter of children living with and affected by HIV/AIDS, saving and improving millions of their lives. We contribute 10 percent of all program funds to mitigate the physical, emotional, and economic impacts of HIV/AIDS on children, and currently provide care and support to nearly 6.2 million orphans and vulnerable children and their caregivers, including nearly 4.7 million children and adolescents under 18 years of age. PEPFAR also ensures that these children and their caregivers are linked to core treatment and prevention services.

PEPFAR supports nearly 1.1 million children on ART globally—a 97 percent increase since 2014. PEPFAR and the Children's Investment Fund Foundation jointly led the \$200 million ACT ini-



From Stigma to Safety: HIV-Positive Woman's Family Learns to Care for Her

When Salome Simion Makanga revealed she was HIV-positive, she experienced the rejection that is all too common for people living with HIV in Tanzania. Salome was stigmatized and chased out of her home, leading her to stop taking her lifesaving HIV medication.

Local leaders contacted TUNAJALI, a comprehensive HIV/AIDS services program funded by PEPFAR. The TUNAJALI staff saved Salome from her situation, utilizing the police gender desk, health care representatives, and the local councilor to intervene. Thanks to their intervention, Salome's relatives gained a better understanding of HIV/AIDS and began to support her in restarting her HIV medication.

In the months following, TUNAJALI staff continued to closely monitor Salome and her family in order to raise their awareness. "It really gave me renewed hope and a new lease on life, knowing that there were people who were ready to support and encourage me," Salome said.

Violence, discrimination, and stigmatization are barriers to accessing HIV/AIDS care and treatment support services. TUNAJALI's gender service provider network calls on all community stakeholders to work together to raise a voice for women and girls.

tiative, a public-private partnership that drove innovative solutions and helped enable 557,000 children to receive ART in the nine high-priority countries in sub-Saharan Africa.

Mother-to-child transmission (MTCT) is the leading cause of HIV infection in children. PEPFAR investments to prevent MTCT have helped reduce new HIV infections among children by 60 percent in the 21 countries in sub-Saharan Africa with the greatest HIV/AIDS burden. To date, thanks to PEPFAR support, nearly 2 million babies have been born HIV-free. Additionally, PEPFAR is collaborating with UNAIDS and other partners on the *Start Free Stay Free AIDS-Free* Framework, which if implemented will end AIDS among children, adolescent girls, and young women by 2020.

SPOTLIGHT

Engaging and Investing in Civil Society

Involving Civil Society and Faith-Based Organizations Early and Often in PEPFAR Planning Process

- » PEPFAR encourages the full participation of civil society and faith-based organizations (FBOs) in every stage of our programming and planning. This helps ensure the success and sustainability of PEPFAR. All PEPFAR countries actively engage civil society organizations and FBOs throughout the development of their annual Country/Regional Operational Plans (COP/ROP). This meaningful engagement also extends to bilateral and multilateral organizations and ministries of health, all of which enable a more robust plan of action for achieving an AIDS-free generation.
- » In December 2016, PEPFAR posted our draft 2017 COP/ROP Guidance online, collecting feedback from all stakeholders, including civil society organizations and faith-based organizations, which directly informed the final guidance.

Key Populations: Ensuring Human Rights and Leaving No One Behind

We cannot end the HIV/AIDS epidemic through medical interventions alone. We must also address the underlying social issues that prevent people from accessing medical interventions of HIV prevention and treatment, especially unequal human rights and stigma and discrimination. When any person is stigmatized or unable to access services due to discrimination, the health of everyone in the community is threatened and the epidemic continues to expand rather than contract.

PEPFAR has specific initiatives addressing the dynamics driving stigma, discrimination, and violence as a part of our broader efforts to expand key populations' access to and retention of HIV/AIDS prevention and treatment services.² Programs such as the Key Populations Investment Fund, the Key Populations Implementation Science Initiative, and the Local Capacity Initiative work to understand, document, and respond to the unique needs of these populations, as well as strengthen the capacity of key population-led and other civil society organizations to be central in implementing the service. But we need to move to more precise measurement to ensure our interventions are having an optimal impact.

PEPFAR partners with the Elton John AIDS Foundation on a \$10 million Key Population Fund initiative to strengthen organizations working to meet the HIV needs of LGBT people, with a focus on sub-Saharan Africa and the Caribbean. PEPFAR is also a founding donor of the Robert Carr Civil Society Networks Fund (RCNF), which supports civil society networks to support populations in accessing HIV services. In 2015, PEPFAR committed \$10 million to the RCNF's most recent replenishment while also bringing new donors to contribute.

² UNAIDS considers gay men and other men who have sex with men, sex workers, transgender people, and people who inject drugs as the four main key population groups, but it acknowledges that prisoners and other incarcerated people also are particularly vulnerable to HIV and frequently lack adequate access to services.

SPOTLIGHT

Transparency in Action

PEPFAR has opened our data, leading by example to drive greater transparency, impact, and accountability.

- » In the past three years, PEPFAR's score on the Aid Transparency Index has risen by more than 40 points (16.1 to 57.6).
- » Building on the new data available on the PEPFAR Dashboards, in 2016 the PEPFAR program completed an improved and updated version of the Sustainability Index and Dashboard, which was implemented as part of the COP in all bilateral program countries.
- » PEPFAR also has joined a wide range of partners through the Global Partnership for Sustainable Development Data to fill critical data gaps and to invest in capacity building so that data can be analyzed and used by the people that need it most.

+41.5 PEPFAR's score improvement on the
Aid Transparency Index

Data for Impact: Accelerating Toward Achieving 90-90-90 and Epidemic Control

PEPFAR works tirelessly to ensure that data drive all of our efforts, maximizing the impact of each dollar invested. We analyze and use data down to the site level to focus programs in the geographic areas and populations with the greatest HIV/AIDS burden. Data on HIV incidence, viral suppression, prevalence, and other key elements are essential to evaluating progress toward the achievement of epidemic control. These data inputs not only give us the clearest picture of the epidemic, they also give PEPFAR teams and other partners the ability to respond efficiently to in-country challenges.

We rigorously manage our partners to increase their performance and efficiency and conduct intensive quarterly reporting and monitoring of the entire program.

Through the PEPFAR Dashboards, we have increased access to our data to drive greater impact, transparency, and accountability for all stakeholders, including U.S. citizens, communities around the world, civil society organizations, U.S. government agencies, donors, and partner country governments. Now individuals in any part of the world may view and utilize PEPFAR-planned funding, program results, and expenditure analysis data in an accessible and easy-to-use format. By using data, we have improved partner performance and increased program efficiency and effectiveness. The Interagency Collaborative for Program Improvement (ICPI) brings together experts from PEPFAR's seven implementing

agencies to analyze, monitor, and optimally allocate the resources needed to control the epidemic.

PEPFAR uses data to drive cost-effective progress toward pandemic control through a variety of programmatic initiatives, including the Data Collaboratives for Local Impact, the Global Partnership for Sustainable Development Data, the Health Data Collaborative, and Data2X. As part of the DREAMS Innovation Challenge, Data4DREAMS is supporting innovative solutions to fill data gaps and improve data accessibility for policy and program impact.

Sustainability and Partnerships: Strengthening Transparency and Accountability

An AIDS-free generation cannot be accomplished by any single actor alone. We need all sectors and diverse partners working together to provide financing, demonstrate political will, and carry out interventions both within and outside of the health sector, and we must include people directly affected by HIV in any response.

PEPFAR works closely with our partner countries to achieve epidemic control while promoting the long-term sustainability of their HIV/AIDS responses. We use tools including the Sustainability Index and Dashboard to track progress on our overall goals, as outlined in the Sustainable HIV Epidemic Control PEPFAR Position Paper. We must continue to act decisively and strategically with our resources and continue to bring other donors and countries themselves to the table to respond to and ultimately help end the global fight against HIV/AIDS.

Working with multilateral partners like UNAIDS and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), PEPFAR optimizes its investments, strengthens country leadership and sustainability, and enhances service delivery. PEPFAR also has

dedicated initiatives to strengthen civil society engagement, leadership, and capacity, including with FBOs, recognizing that sustainable HIV/AIDS interventions must be tailored to and informed by the communities we serve.

PEPFAR forges strategic public-private partnerships that support and complement our prevention, care, and treatment work. These partnerships translate new ideas into practice and accelerate impact, benefiting from the private sector's expertise and resources as well as its leadership, energy, and inspiration. PEPFAR also advances global health diplomacy through close engagement with U.S. Chiefs of Mission in partner countries as well as with their counterpart foreign diplomats based in Washington, D.C., to increase the impact of U.S. health investments and partnerships.



■ President Obama addressing youth during a trip to Kenya.

Gaining Efficiencies, Expanding Impact

PEPFAR implementers are accountable to the U.S. Congress and the American people, who put their trust in PEPFAR to save lives and to adapt and evolve in order to deliver the greatest possible return on investment. The people we serve and the American taxpayer deserve nothing less. That is why PEPFAR is constantly innovating through implementing new approaches to generate greater efficiencies, drive down costs, and increase our impact. This has allowed the program to significantly expand its results and impact in a budget-neutral environment.

From its inception, PEPFAR has thrived due to the exceptional contributions from within the U.S. government. The leadership at the U.S. Department of State's Office of the Global AIDS Coordinator and Health Diplomacy, combined with the implementation through the United States Agency for International Development; the U.S. Department of Health and Human Services and its agencies, including the Centers for Disease Control and Prevention, Health Resources and Services Administration, and the National Institutes of Health; the Department of Defense; the Peace Corps; and the Department of Labor, as well as our partnership with the Department of the Treasury, have been instrumental and have demonstrated the true strength of the whole-of-government

SPOTLIGHT

Sustainability: Investing for Impact

An AIDS-free generation cannot be accomplished by any single actor alone. PEPFAR works closely with our partner countries to achieve epidemic control while promoting the long-term sustainability of their HIV/AIDS responses. PEPFAR is hardwiring sustainability into our business processes and day-to-day programmatic activities. In 2016, the PEPFAR program completed an improved and updated version of the Sustainability Index and Dashboard (SID). Through the SID, PEPFAR measures 15 core elements critical to sustainability, with the goal of ensuring there are:

- » Enabling environments for HIV service delivery.
- » Services that meet the prevention and treatment needs of everyone in need.
- » Systems that ensure the quality, efficiency, and effectiveness of HIV services.
- » Sufficient financial, human, and organizational capital to keep systems and services operating into the future.

SPOTLIGHT

Efficiency and Accountability

PEPFAR is recognized widely for efficiently and effectively investing U.S. taxpayer dollars to save millions of lives and change the course of the pandemic. PEPFAR is constantly innovating to generate greater efficiencies, drive down costs, and increase our impact. PEPFAR's relentless commitment to accountability has allowed PEPFAR to dramatically expand our results and impact in a budget-neutral environment (Figure A). The people we serve and the American taxpayer deserve nothing less.

PEPFAR has realigned and refocused the program in every country, employing a new business model that is a model for development programs everywhere. These critical program and business process improvements include targeted investment using granular, site-level data; rigorous partner management to increase performance and efficiency; and intensive quarterly monitoring of the entire program.



Serving Our Children, Faithfully

When Father Angelo D'Agostino discovered that orphanages were turning away HIV-infected infants, he decided to take matters into his own hands. Alongside Sister Mary Owens, Father D'Agostino established Nyumbani in 1992 with one goal: to serve children directly impacted by AIDS in Kenya. Today, Nyumbani serves more than 4,000 children infected and affected by HIV under Sister Mary's leadership.

In addition to direct medical care, Nyumbani provides a sustainable child-centered approach that includes education, stigma reduction, workforce training, and community integration. Nyumbani, which means "home" in Kiswahili, is just that to the communities it serves: combining medical and diagnostic facilities with a family-centered model of care and support.

Nyumbani runs four programs in Kenya:

- » Nyumbani Children's Home, which cares for 120 HIV-positive children from infants to age 23
- » Lea Toto Community Outreach Centers, which serve nearly 3,000 HIV-positive children and their families at eight sites in the Nairobi slums
- » Nyumbani Diagnostic Laboratory, which provides state-of-the-art testing and counseling services to children and patients, while generating income by providing services to the broader community
- » Nyumbani Village, which houses 1,000 children and 100 grandparents affected by HIV/AIDS

Despite the progress made, Sister Mary knows that there is still much left to do: "The stigma has to be eradicated. HIV is a medical condition—that's all it is. But I am afraid that a high percentage of people don't see it like that."

approach. The dedicated career staff working internationally under the leadership of the chiefs of mission at our embassies have been vital to bilateral engagement and ensuring successful implementation.

We have relentlessly applied a data-driven, targeted approach to address one of the most complex global health crises in modern history. The United States has challenged the conventional wisdom that nothing could be done to reduce new HIV infections and control the epidemic in high burden countries, by dramatically expanding evidence-based, community-focused HIV prevention, treatment, and care programs in underresourced settings. Time and again, we have proven that PEPFAR makes the impossible, possible.

PEPFAR has saved millions of lives, but we have not done it alone. It takes all partners, working in a focused, coordinated, data-driven manner, to succeed. PEPFAR works with the Global Fund, to which we are the largest donor, to maximize our joint investments. The increased partnership between PEPFAR and the Global Fund improves the impact of our investments through more strategic use of resources to support programs that are impactful and sustainable. In August 2016, the U.S. government pledged up to \$4.3 billion through 2019 to the Global Fund for its fifth replenishment, subject to congressional appropriations and dependent on final contributions from other donors. To galvanize global action, the U.S. government intends to match one dollar for every two dollars in pledges made by other donor countries through September 2017.

Since its founding, PEPFAR has built health infrastructure and strengthened capacity through an emphasis on sustainability. This has not only supported patients living with HIV/AIDS, but has also been leveraged for maternal and child health, tuberculosis, malaria, immunizations, and emergency disease outbreak responses. We have invested in

10-Point Plan for Achieving Epidemic Control

PEPFAR continues to make great strides, focusing on reaching and serving key affected populations, strengthening community engagement, addressing stigma and discrimination, and making program decisions supported by clearer and more granular data. Despite our extraordinary accomplishments, our work is far from done, as critical gaps remain. To finish what we started, PEPFAR is pursuing a forward-leaning, data-driven 10-point plan for achieving epidemic control:

1. Dramatically reduce new HIV infections among adolescent girls and young women by driving a comprehensive yet targeted strategy to protect their health, keep them in school, and secure their economic future, including through the PEPFAR-led DREAMS partnership and expanded efforts to prevent gender-based violence.
2. Save and improve children's lives by providing comprehensive prevention, treatment, care, and support to children living with and affected by HIV, through enhanced OVC programs, and expanded efforts toward ensuring no child is born with HIV. We are working to enable all HIV-positive pregnant women to receive lifelong ART so they can remain healthy and alive.
3. Reach more men with HIV prevention and treatment services, including continued expansion of VMMC for HIV-negative men and ART for men who test HIV-positive, which both keeps them healthy and alive and reduces HIV transmission to young women.
4. Use data at the most granular level available to focus programs on the geographic areas and populations with the greatest HIV/AIDS burden, maximizing the impact of each dollar entrusted to us by the U.S. Congress and the American people.
5. Enhance partnerships with and engagement of the private sector to pilot innovative ideas and accelerate impact, benefiting from its expertise and resources as well as its leadership, energy, and inspiration to address key challenges.
6. Continue to work closely with FBOs, building on their long-standing HIV service delivery capacity and community relationships, especially with orphans and vulnerable children, as well as their exceptional leadership, commitment, and reach.
7. Ensure our efforts are informed by and engaged with a variety of voices from all sectors and disciplines, including civil society and communities; leading scientists, academics, and practitioners; multilateral organizations; and people living with HIV.
8. Protect human rights and address prevailing stigma, discrimination, and violence so that every person can access the HIV prevention and treatment services they need, which will ensure that no one is left behind and the epidemic continues to contract rather than expand. We will use several specific initiatives to address these issues, while continuing to strengthen the capacity and leadership of civil society and community organizations.
9. Advance the sustainability of the HIV/AIDS response by ensuring a shared response to ending the global HIV/AIDS epidemic and that has: an enabling environment for HIV service delivery; services that meet the prevention and treatment needs of everyone in need; systems that ensure the quality, efficiency, and effectiveness of HIV services; and sufficient financial, human, and organizational capital to keep systems and service operating into the future.
10. Work hand-in-hand with our chiefs of mission, who have unique diplomatic access and assets to strengthen our partnership with partner countries, promote key policy changes needed for epidemic control, and advance critical dialogue around sustainability.



■ U.S. Secretary of State John Kerry hosts a high-level meeting with PEPFAR partners in New York City on September 25, 2013.

robust laboratories and well-trained laboratory specialists critical to well-functioning health systems, enabling clinicians and health workers to better diagnose and treat a range of diseases and conditions. PEPFAR has trained nearly 220,000 health care workers to deliver HIV care and other health services, improving both HIV care and creating a lasting infrastructure that enables partner countries to address all health challenges of today and tomorrow.

There are also numerous indirect economic benefits for treating people living with HIV before they develop AIDS. Healthy HIV-infected individuals on treatment are able to work and support their families. Keeping parents healthy also lessens other social costs, such as caring for children whose parents die of AIDS-related illnesses. Robust statistical models have shown the economic benefits of treatment will likely exceed program costs within just a decade of investment. In other words, treating people not only saves lives but also generates considerable economic returns.

Conclusion

Since the darkest days of the epidemic, we have come a long way toward achieving an AIDS-free generation. The journey is far from over. Over the last 13 years, PEPFAR's efforts to strengthen our partnerships, increase efficiencies, and expand impact have been driven by a relentless commitment to excellence. Our stewardship over PEPFAR is inspired and enabled by the compassion and generosity of the American people and the U.S.

Congress, which we honor daily through our commitment to programmatic excellence and oversight, and to the millions of men, women, and children whom we are proud to serve around the world.

Each day we wake up guided by the memory of the 35 million men, women, and children who have died from AIDS-related illnesses since the start of the epidemic. PEPFAR is determined to work even harder and smarter to save and improve the lives of the nearly 37 million people who are still living with the disease.

The promise of controlling, and, ultimately, ending the AIDS epidemic is within reach. What once seemed impossible is now possible. Once again, the United States is rising to the challenge and leading the way.

APPENDICES



■ A mother with her child in Kenya.

CREDIT: USAID

APPENDIX A: How PEPFAR Harnesses Data for Maximizing Cost-Effectiveness and Impact – Controlling the HIV/AIDS Pandemic

PEPFAR has prioritized continued improvements on its data collection and utilization for maximal impact to achieve sustained epidemic control. Since 2014, PEPFAR has focused on three guiding pillars to deliver an AIDS-free generation with sustainable results—accountability, i.e., cost-effective programming that maximizes the impact of every dollar invested; transparency, i.e., validation of all data by

publicly sharing all levels of program data; and impact, i.e., demonstration of sustained epidemic control, meaning more lives are saved and new infections are averted.

These guiding pillars and their supporting activities have paved the way for the complete realignment and refocusing of the PEPFAR program, including targeted investment using granular, site-level, and age- and sex-disaggregated data; rigorous partner management to increase performance and efficiency; and intensive quarterly monitoring of the entire program. Thanks to these efforts, program results and impact have dramatically increased despite a budget-neutral environment (Figure 1).

Figure 1. PEPFAR's 3 Guiding Pillars-Delivering an AIDS – Free Generation with Sustainable Results

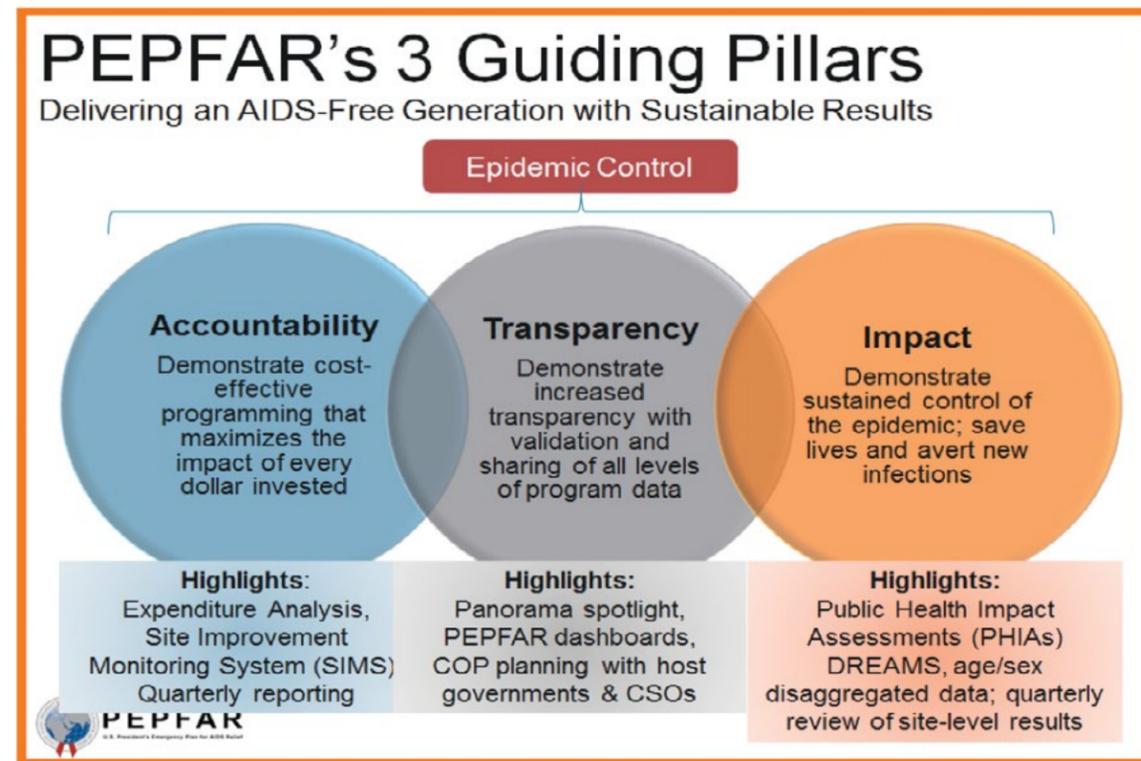
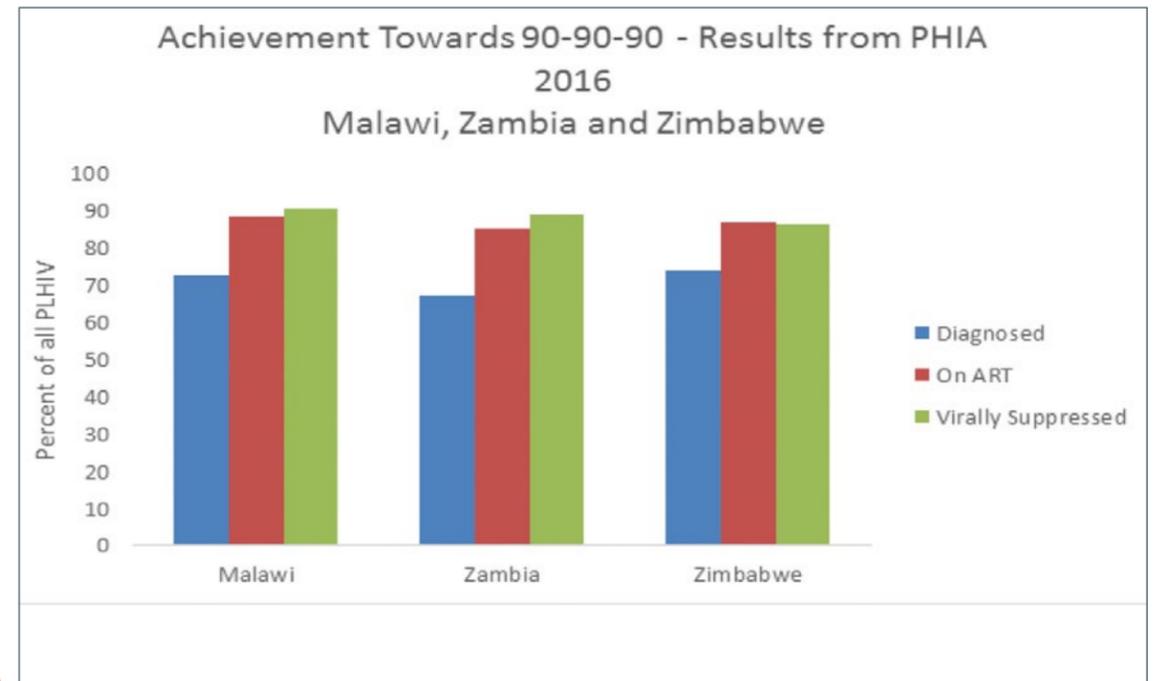
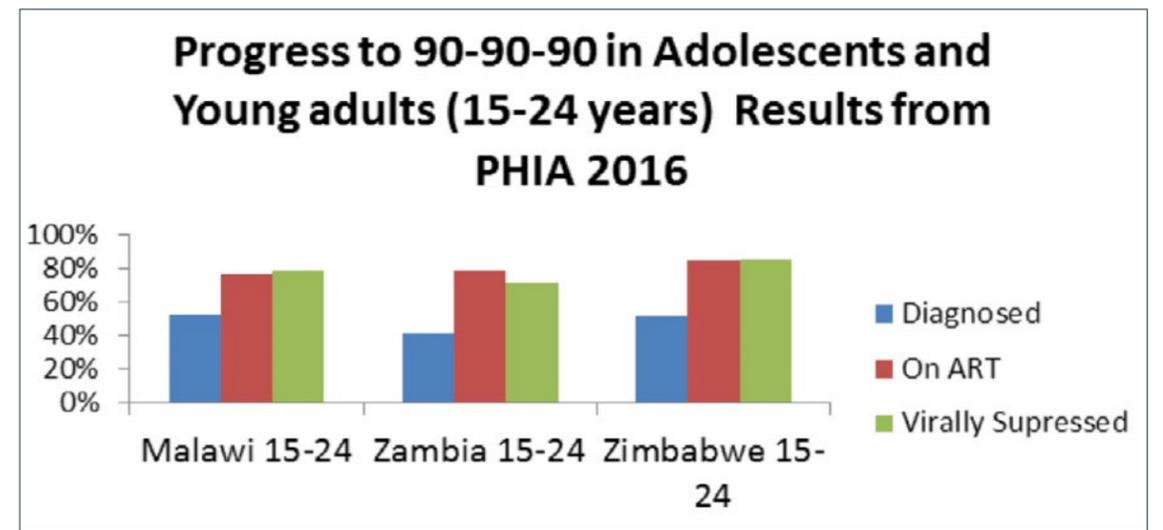


Figure 2A. Achievement Toward 90-90-90 – Results from 2016 PHIAs in Malawi, Zambia, and Zimbabwe
Figure 2B. Progress to 90-90-90 in Adolescents and Young Adults (15-24 years old)



A



B

Most recently, results from three 2016 Population HIV/AIDS Impact Assessments (PHIAs) have shown significant progress toward epidemic impact goals. Findings from these PHIAs in Malawi, Zambia, and Zimbabwe (Figures 2A and 2B) reaffirm that the Joint United Nations Programme on HIV/AIDS (UNAIDS) 90-90-90 goals (90 percent of people living with HIV [PLHIV] know their status, 90 percent of people who know their status are accessing treatment, and 90 percent of people on treatment have suppressed viral loads) are attainable and show decreasing HIV incidence in all three countries (Figure 3). These countries are moving toward epidemic control and the point at which the financial resources required to address the epidemic flatten out and ultimately decline.¹

The three PHIAs also provide critical information to specifically inform programming. In Malawi, Zambia, and Zimbabwe, HIV incidence

among young people, particularly women, remains unacceptably high. HIV prevalence increases significantly among those aged 20–24, indicating an imperative to renew focus on reaching young people with prevention programming for expanding epidemic control. Significantly few young men and women under 25 are aware they are HIV infected and continue to infect others unknowingly (Figure 2B). These individuals must be reached where HIV-positive people are and immediately initiated on treatment to suppress transmission and ensure their own health. HIV-negative people need to receive prevention services to ensure continued risk avoidance and reduction. At the same time, epidemic control must be sustained for men and women over 30 years old.

PEPFAR continues to build on the vision laid out in fiscal year (FY) 2014 through interagency, country, or regional operational planning

(COP/ROP) 2015 processes, emphasizing the use of granular data to improve decision-making and increase program effectiveness. The COP/ROP process is driven by a comprehensive analysis of program, expenditure, and epidemiologic data.

All U.S. government agencies responding to the HIV/AIDS epidemic in each partner country are working together to review and analyze data, using the results to drive decision-making. Under the leadership of their respective U.S. ambassador, each PEPFAR country team develops the Strategic Direction Summary, targets, and budget, which will be examined during regional COP review meetings and then approved by the U.S. ambassador-at-large and coordinator of U.S. government activities to combat HIV/AIDS.

A key component in the COP/ROP process is meaningful engagement with bilateral and multilateral organizations, Ministries of Health (MOH), and representatives from local civil society organizations (CSOs), such as faith-based organizations (FBOs). Including all stakeholders enables a more transparent and robust review and proposal of the planned PEPFAR programming and strategies, and ensures that all stakeholders are invested in each country's success in achieving an AIDS-free generation.

Zambia's Planning and Monitoring

Zambia is a lower, middle-income country with a gross national income of US\$3,660 per capita, adjusted for purchasing power parity, and an estimated population of 15,003,936. HIV prevalence in Zambia is 12.9 percent, according to the most recent UNAIDS estimates. However, there is heterogeneity of HIV disease burden across the country (Figure 4). Efficient and impactful use of resources is the driving force to disrupt HIV transmission in the areas with a high burden of PLHIV.



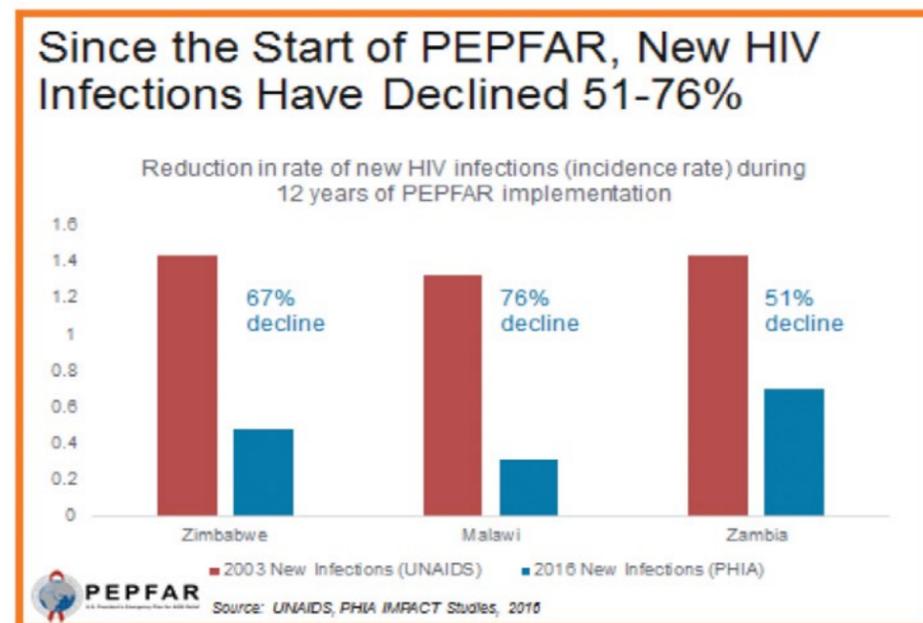
■ Young girls in Senegal.

Through granular epidemiologic and site-level analysis, the PEPFAR team in Zambia prioritized and planned to saturate the high HIV-burden districts with antiretroviral treatment (ART). Since a majority of the burden lies in the Central, Copperbelt, and Lusaka provinces, the PEPFAR Zambia team scaled up diagnosis and treatment efforts in these areas, aiming to enroll 80 percent of PLHIV on ART by the end of FY 2017 and achieve viral suppression.

During the COP 2016 planning and review, Zambia was able to show that although nationally the country had not yet achieved epidemic control, there were 10 districts within the country, noted in dark red, that will reach saturation before 2017 (Figure 4). This will dramatically impact incidence through continual lowering of HIV transmission in these high HIV-burden zones and build on the success demonstrated through the PHIAs.

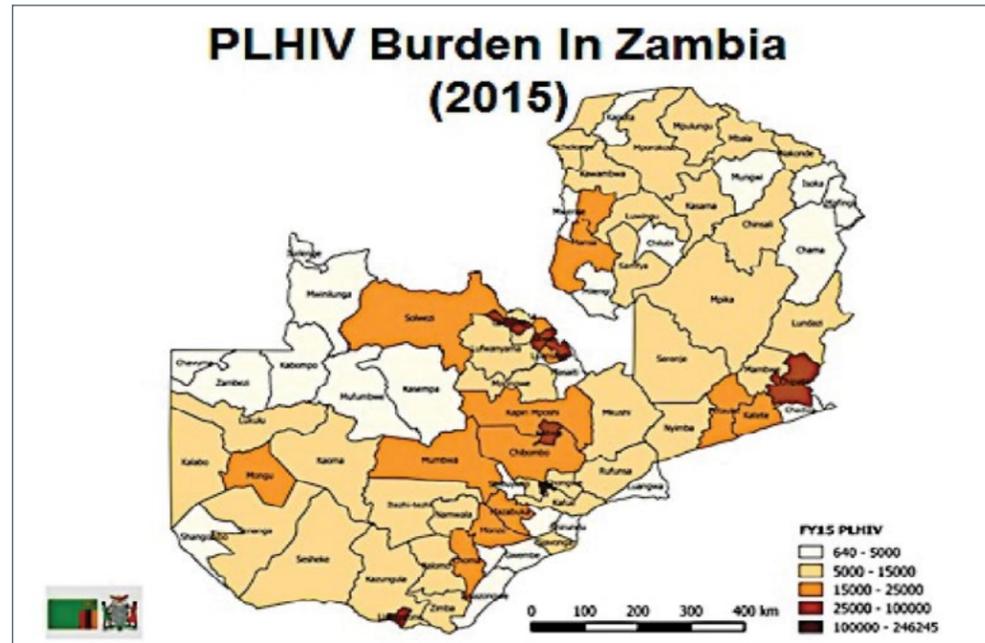
With these data, PEPFAR, in collaboration with the government of Zambia and civil society, developed COP 2016 to maintain saturation levels in these districts and work toward saturation in the remaining areas. This includes providing a differentiated package of services by geography and population in the districts

Figure 3. Incidence Declines Since 2003 — Results from 2016 PHIAs in Malawi, Zambia, and Zimbabwe



¹ PEPFAR defines epidemic control as the point at which the number of new HIV infections falls below the number of all-cause mortality among persons infected with HIV in a given geographic area.

Figure 4. HIV Disease Burden – Zambia



that have achieved saturation. There is also an increased focus on finding individuals who test positive and linking them to treatment.

Through the use of all the data and program monitoring, Zambia plans to saturate all the remaining districts noted in orange (Figure 5) to achieve 80 percent national ART coverage by the end of 2017. To accomplish this, Zambia must use the results from the PHIA by geography and population to drive continuous and real-time focus. The significant rise in HIV prevalence among adolescent females and young women, shown in the PHIA data (Figure 6), is concerning. Even before the PHIA data was available, PEPFAR had launched the Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe (DREAMS) partnership to break the cycle of HIV transmission from young men ages 24–30 to adolescent girls. Additionally, it is important to maintain gains in reaching the UNAIDS 90-90-90 goals among older adults in order to sustain progress toward epidemic control among individuals over 30 years old.



Children in Uganda.

The PHIA also demonstrate high rates of community-level viral suppression, approaching a stage at which the epidemic is becoming controlled. Targeted strategies by geography and population are necessary to achieve the critical epidemic impact to control the pandemic. Reaching 80 percent saturation in Zambia would be a significant step toward attaining epidemic control in the country.

Figure 5. Zambia – 80 Percent National ART Coverage by the End of 2017

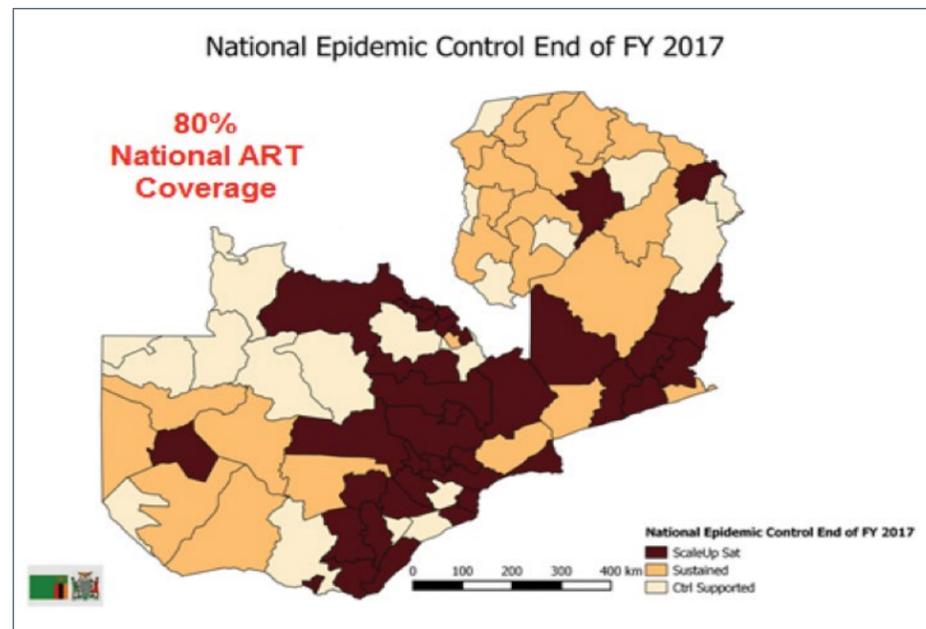


Figure 6. Critical Intervention Points to Prevent HIV Among Females

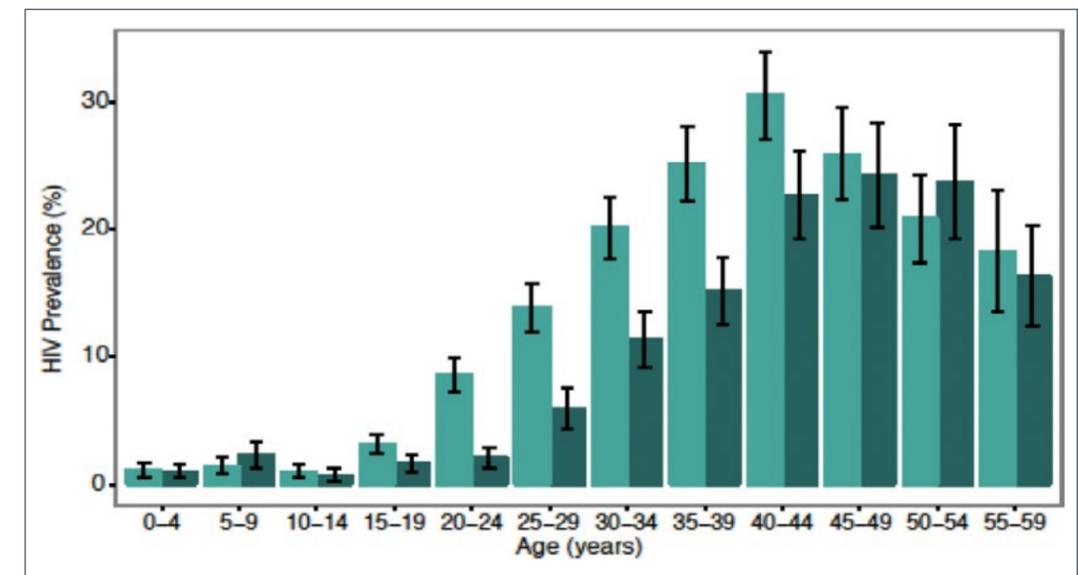
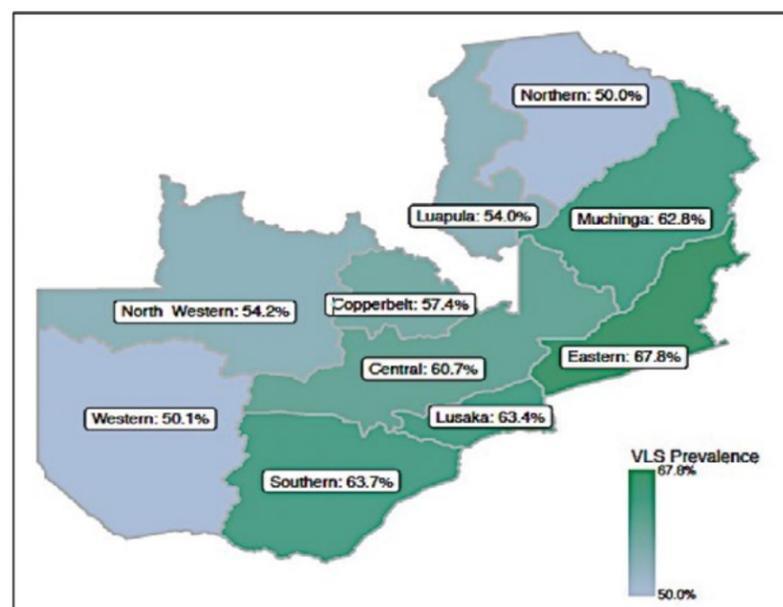


Figure 7. Viral Load Suppression Among HIV-Positive Individuals by Province – Zambia



Maintaining epidemic impact and sustaining the HIV response will require a continued focus on retaining HIV-positive individuals on treatment and reaching viral load community suppression rates of 73 percent, in collaboration with the Zambian government and other partners. Intense focus on improving viral load suppression to ensure decreasing transmission must bring all areas up to 73 percent from current viral load suppression levels in Zambia (Figure 7).

APPENDIX B: How PEPFAR Documents Results

PEPFAR ensures impact by comprehensively monitoring data from the global HIV/AIDS response. We track both national and PEPFAR results at site and community levels. In addition, we developed and implemented the essential PHAs to both validate coverage of HIV prevention and treatment services and the impact of those services on HIV incidence (new HIV infections). PEPFAR is strengthening its results reporting by using specific progress

indicators as well as important outcome and impact measurements.

The second complete year of quarterly site-level monitoring by all PEPFAR implementing agencies and implementing partners (from FY 2016) provides the granular data demonstrating important differences in patient outcomes and site performance. The use of this data has resulted in targeting implementing partners' performance at the site level and shifts in funding and funding durations to improve outcomes and ensure performance-based financing. These results are also being used to prioritize sites for in-depth support and monitoring, based on outputs and outcome quality.

PEPFAR continues to evolve. Starting in FY 2017, PEPFAR will require revised minimum technical support and reporting standards for all sites and program areas. Implementing partners should provide a minimum of yearly, differentiated technical and direct support to sites and patients based on site- and community-level performance and quality. Many countries are already implementing differ-

entiated models for ART service delivery for stable patients. However, on-site support may need to be provided and monitored more frequently by findings from the PEPFAR Oversight and Accountability Results Team (POART) and Site Improvement through Monitoring System visits. Increasing impact in the areas with the highest HIV burden remains the priority in order to prevent new infections.

There are now three categories of PEPFAR support that are offered in "scale-up," "sustained," and "centrally supported" areas. In areas where PEPFAR is supporting scale-up and sustained services, the type of support is indicated as Direct Service Delivery (DSD) or Technical Assistance-Service Delivery Improvement (TA-SDI). In areas where PEPFAR support is not at the site level, but is at national or subnational levels of financial support, it is characterized as Central Support. Tracking the outcomes at each of these levels will allow comprehensive analysis of the impact of each dollar invested all the way from the site level to the national level.

Support in Scale-Up and Sustained Areas:

DSD: Individuals are counted as receiving DSD support from PEPFAR when *both* of the following conditions are met: provision of key staff or commodities *and* support to improve the quality of services through site visits as often as is deemed necessary by the partner and country team.

TA-SDI: Individuals are counted as supported through TA-SDI when the point of service delivery receives support from PEPFAR that *only* meets the second criterion, i.e., support to improve the quality of services through site visits as often as is deemed necessary by the implementing partner and country team.

1. Provision of key staff or commodities: PEPFAR is directly interacting with patients or beneficiaries in response to their health care (physical, psychological, etc.) needs by providing key staff and/or essential commodities for routine service delivery. Staff who are responsible for the completeness and quality of routine patient records (paper or electronic) can be counted here; however, staff who exclusively fulfill MOH and donor reporting requirements cannot be counted. Each indicator reference sheet includes a list of key staff and/or essential commodities that meet this condition.

AND/OR

2. Support to improve the quality of services: PEPFAR provides an established presence at and/or routinized support for those services at the point of service delivery. Each indicator reference sheet includes a list of activities that count toward support for service delivery improvement.



CREDIT: Guido Dingemans, Jhpiego

■ Youth in Malawi dance as a part of an HIV/AIDS awareness program.

Overall, PEPFAR’s revised approach to monitoring, evaluation, and reporting continues to provide accountability of U.S. government investments, and accurately and effectively captures the range of PEPFAR efforts to support countries’ HIV responses. The U.S. Department of State’s Office of the U.S. Global AIDS Coordinator and Health Diplomacy (S/GAC) is working with each U.S. implementing agency to ensure validation of results at the site level.

In addition, PEPFAR is equally committed to improving how we document results and during FY 2016 began a process to develop options for achieving this objective. This resulted in new and revised indicators now referred to as the Monitoring, Evaluation, and Reporting 2.0 guidance. The principles underlying this effort are meant to achieve the following:

- » Ensure our alignment with UNAIDS 90-90-90 goals and epidemic control.
- » Simplify data collection and reduce required data points.

- » Align gender and age disaggregates with global practices.
- » Strengthen our alignment of indicators with our multilateral partners.
- » Increase reporting frequency to align with and support national and multilateral procedures.

PEPFAR is firmly focused on the sustainable control of the epidemic. An ever-expanding epidemic—and the associated expanding need for services—is not financially sustainable, even with the collective effort of all partners. Ensuring a focus on impact and changing the course of the epidemic through specific and focused interventions where the epidemic is expanding rather than contracting will determine the overall success of the PEPFAR investment. UNAIDS, in its December 2016 Fast-Track document, projects the course of the epidemic over the next 15 years by examining the number of new HIV infections and

Figure 8. New HIV Infections Averted by Getting on the UNAIDS Fast-Track – 2016–2030

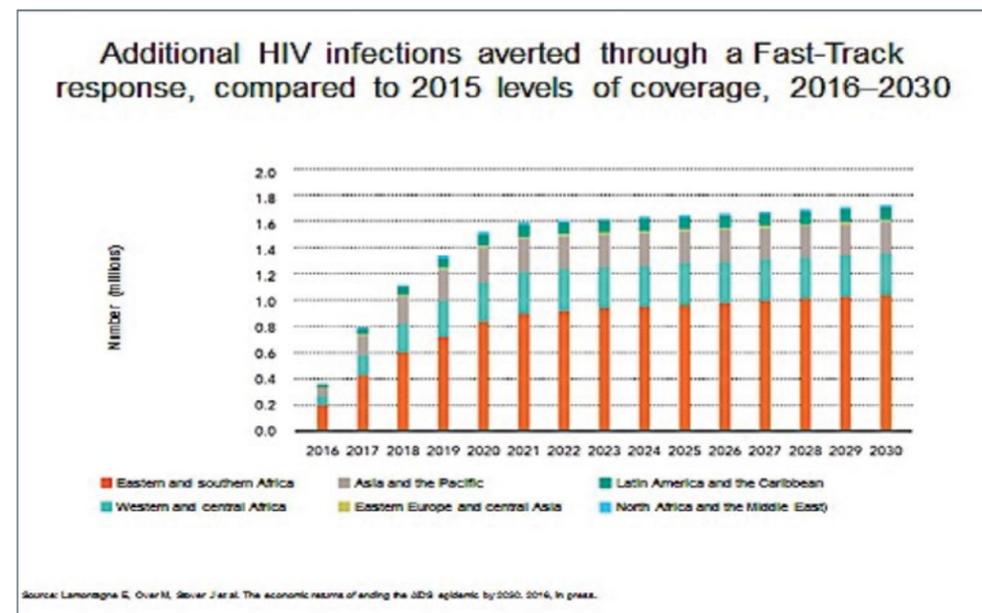
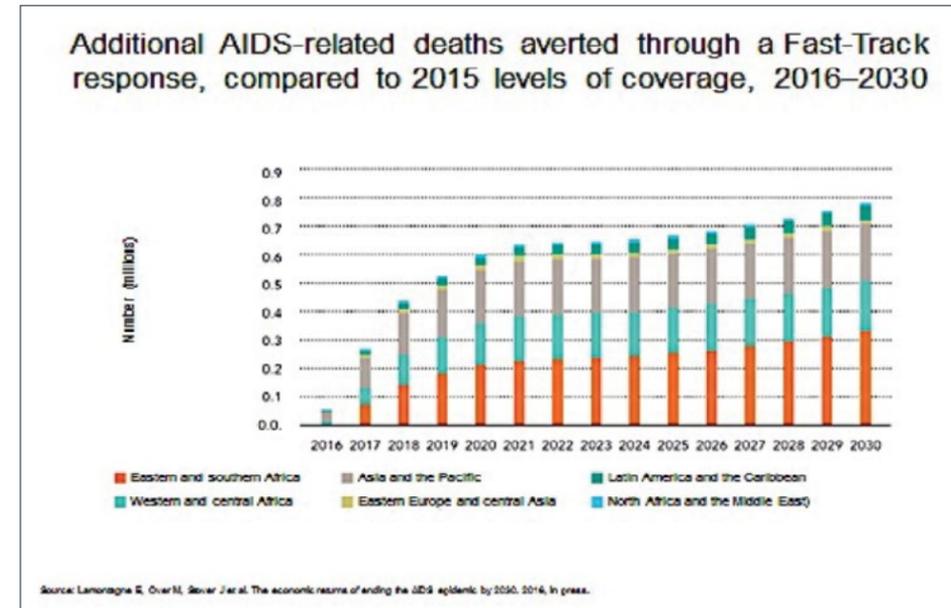


Figure 9. AIDS-Related Deaths Averted by Getting on the UNAIDS Fast-Track – 2016–2030



■ Young men in Malawi wear bracelets promoting VMMC.

AIDS-related deaths averted by implementing a Fast-Track response.²

With our focused effort that will achieve epidemic control while decreasing or stabilizing the need for long-term investment, we can prevent 1 million more new infections annu-

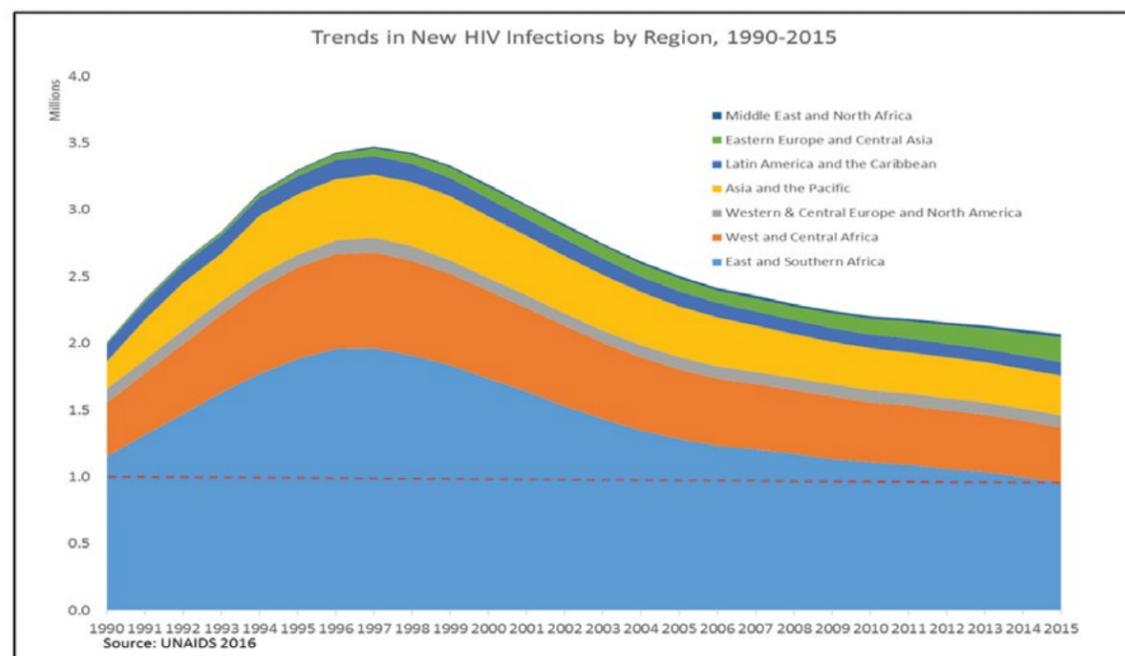
² UNAIDS. (2016). *Get on the Fast-Track—The life-cycle approach to HIV*. Geneva.

ally in eastern and southern Africa compared with 2015 coverage levels (Figure 8). With this approach, we can also avert millions of AIDS-related deaths in eastern and southern Africa (Figure 9). PEPFAR will continue this laser-like focus to ensure the epidemic is controlled in all age groups and in both men and women. Progress to date has been breathtaking, with more than 11 million lives saved; the program is changing the very course of the pandemic.

APPENDIX C: Global Trends in New HIV Infections

PEPFAR ensures that core HIV prevention and treatment interventions are strategically scaled up to reduce the number of new HIV infections below the number of all-cause mortality among persons infected with HIV—an essential metric in demonstrating epidemic control (Figure 10), where the number of new infections in sub-Saharan Africa (where PEPFAR invests more than 90 percent of its COP

Figure 10. Global Trends in New HIV Infections – 1990–2015



resources) is at its lowest point since data were reported in 1990. The only region with an increase in new infections is in Eastern Europe and Central Asia, which is driven by the increase in new HIV infections from Russia.

When the number of new infections is less than the mortality of all HIV-positive individuals,

the total burden of disease and the financial cost of the epidemic will decline globally. Importantly, this needs to be analyzed in a country-by-country manner to ensure success. The number of annual new infections across all PEPFAR-supported countries was 2,191,300 in 2003; 1,575,400 in 2013; and 1,479,400 in 2015. Accelerating this downward trend, to under 1 million, is key to achieving control of this pandemic.

PEPFAR is laser-focused on continuing to reduce new infections by saturating areas of high HIV burden at the subnational level (county, district, and subdistrict) with prevention and treatment services, including targeted HIV testing services (HTS). By strategically refocusing, PEPFAR programs will be able to identify and treat many more HIV-infected persons, reducing new infections by lowering the community viral load (the amount of HIV particles in a sample of blood) in high-transmission areas.



■ A group of young women in Mozambique.

Ensuring saturation with prevention services in the same high-transmission zones will have the greatest impact on the epidemic. These efforts will focus on increasing coverage of combination prevention interventions among priority populations: discordant couples, key populations, tuberculosis (TB)/HIV co-infected patients, children, and specifically young women and girls through DREAMS and orphans and vulnerable children (OVC) programming.

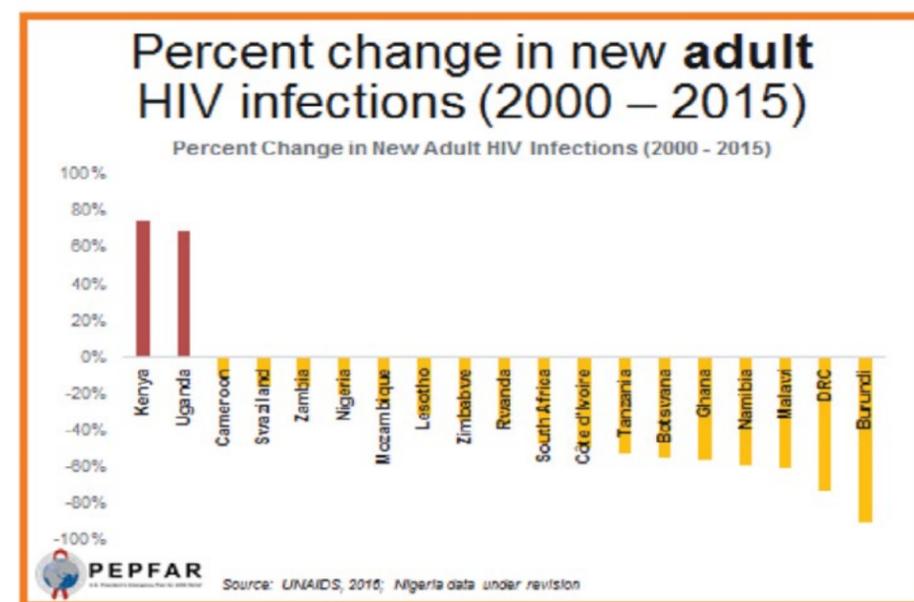
Overall, there has been a significant decrease in rate (incidence) of new HIV infections during the last 15 years, although the percentage change in new infections varies significantly by country (Figures 11 and 12). A large percentage of these declines has been driven by effective prevention of mother-to-child transmission (PMTCT) programming and decreasing the number of new pediatric infections.

Unfortunately, progress in decreasing new infections in adults has been substantially less

and uneven (Figure 12). This is why, beginning in 2015, PEPFAR increased its funding focused on preventing infections in young women through the DREAMS partnership and expanded its support for voluntary medical male circumcision (VMMC) to prevent infections in young men. In FY 2017, PEPFAR is increasing its focus on expanded and improved testing and treatment of HIV-positive men to improve their health and decrease transmission. It is a critical, yet lagging, element in efforts to control the HIV epidemic.

In sub-Saharan Africa, where the epidemic has been the most costly and deadly, results vary from country to country due to the history of the epidemic and coverage of specific interventions (Figures 13–15). Effective interventions have not advanced at the same rate and in the same manner, so changes in new infections and AIDS-related mortality differ across countries (Appendix W).

Figure 11. Percent Change in New Adult HIV Infections in Select Countries – 2000–2015



PEPFAR Source: UNAIDS, 2016; Nigeria data under revision

Figure 12. Percent Change in New Pediatric HIV Infections in Select Countries – 2000–2015

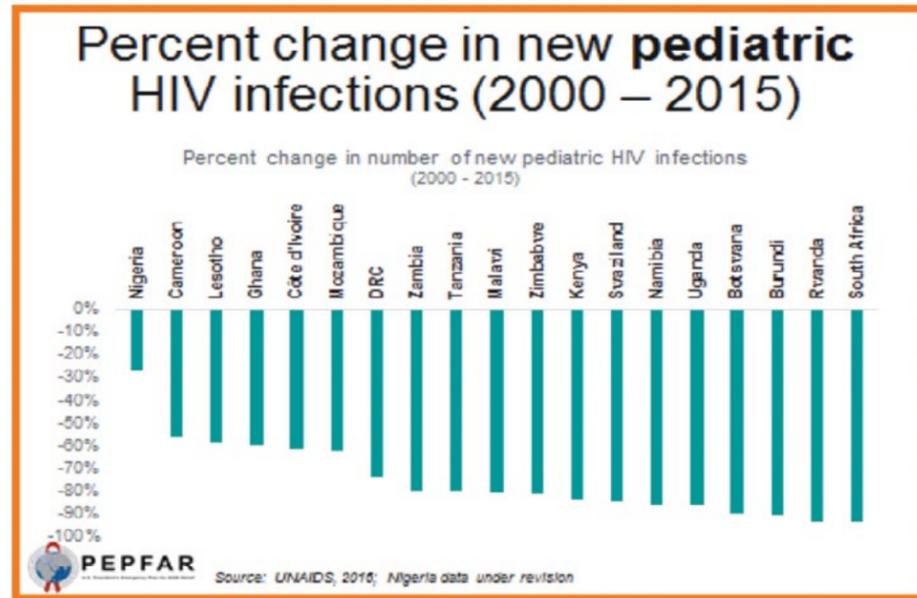
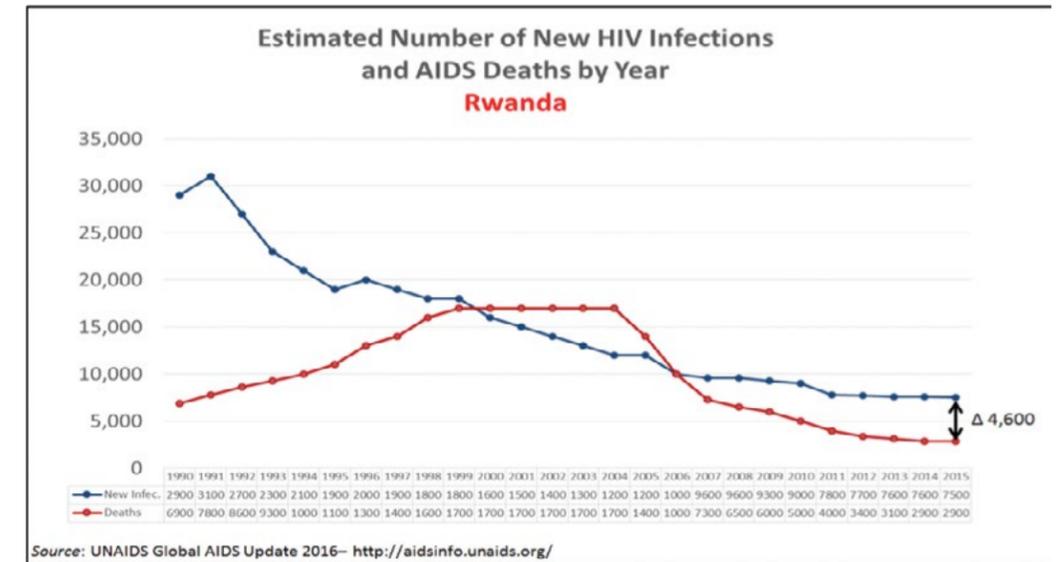


Figure 14. Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence in Rwanda



Closing the gap between new HIV infections and mortality (40,000/year) will be essential to decreasing out-year costs.

Closing the gap between new HIV infections and mortality (<5,000/year) is the key to long-term epidemic control.

Figure 13. Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence in Zambia

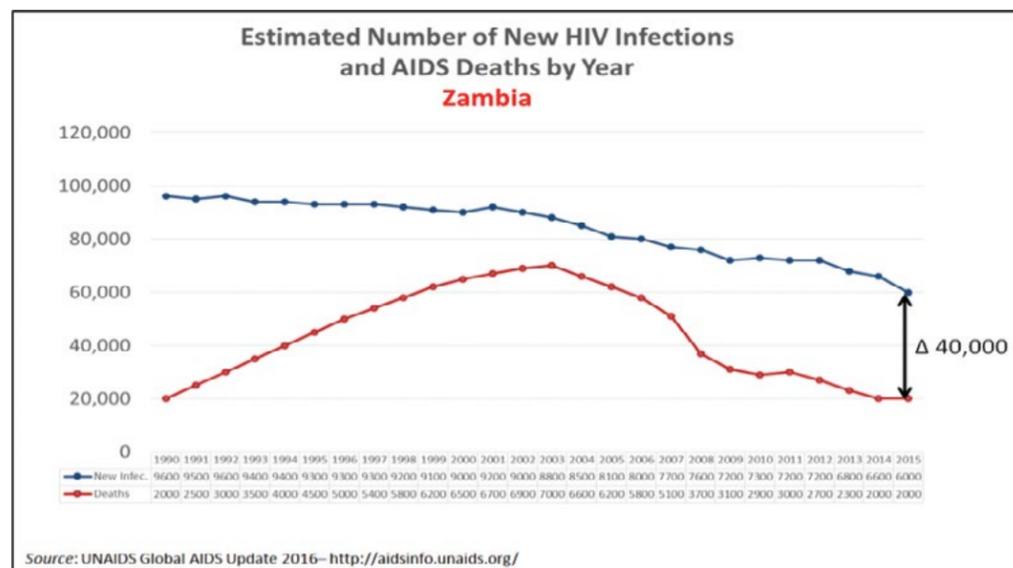
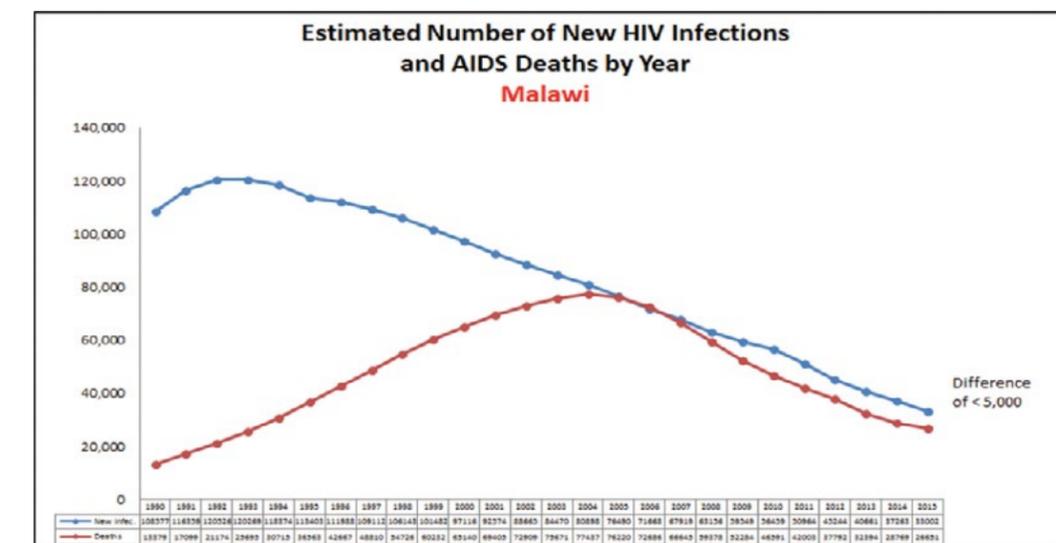


Figure 15. Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence in Malawi



Decreasing the absolute number of new infections—and not just incidence—is essential for both epidemic control and fiscal sustainability, as it drives the burden of disease and cost for caring for HIV-positive individuals. While the incidence rate has declined in most PEPFAR countries, the populations most at risk for HIV infection, especially young women, have substantially expanded in the last 20 years due to overall population growth, especially under 25-year-olds. This is particularly the case in sub-Saharan Africa where, due to high fertility rates and improving child survival, the population of 15–24-year-olds will have doubled by 2020 from the beginning of the epidemic (Figures 16 and 17). With the significant increases in the total population of sub-Saharan Africa

and specifically the increase in young people, we have reached a critical juncture. In this context, our programs must continually be even more effective just to maintain the status quo, and must significantly increase impact to control this pandemic.

In 1990, there were 100,000,000 15–24-year-olds in sub-Saharan Africa, and in 2020, there will be more than 215,000,000 15–24-year-olds. This is further illustrated by a single country, Mozambique (Figure 18), and this is replicated in country after country. We must immediately increase our impact by more than 50 percent in countries like Mozambique to control this pandemic.

Figure 16. Large Increase in Young Women Ages 15–24 Since the Beginning of the Epidemic

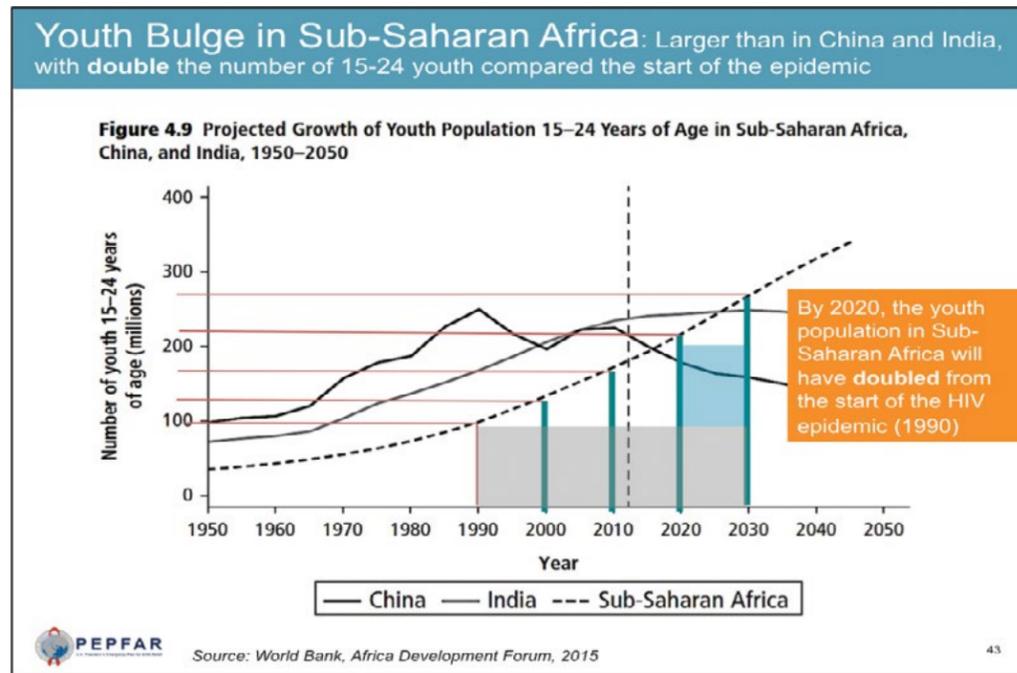


Figure 17. Understanding the Youth Bulge: Why Are There More Adolescents Than Ever Before?

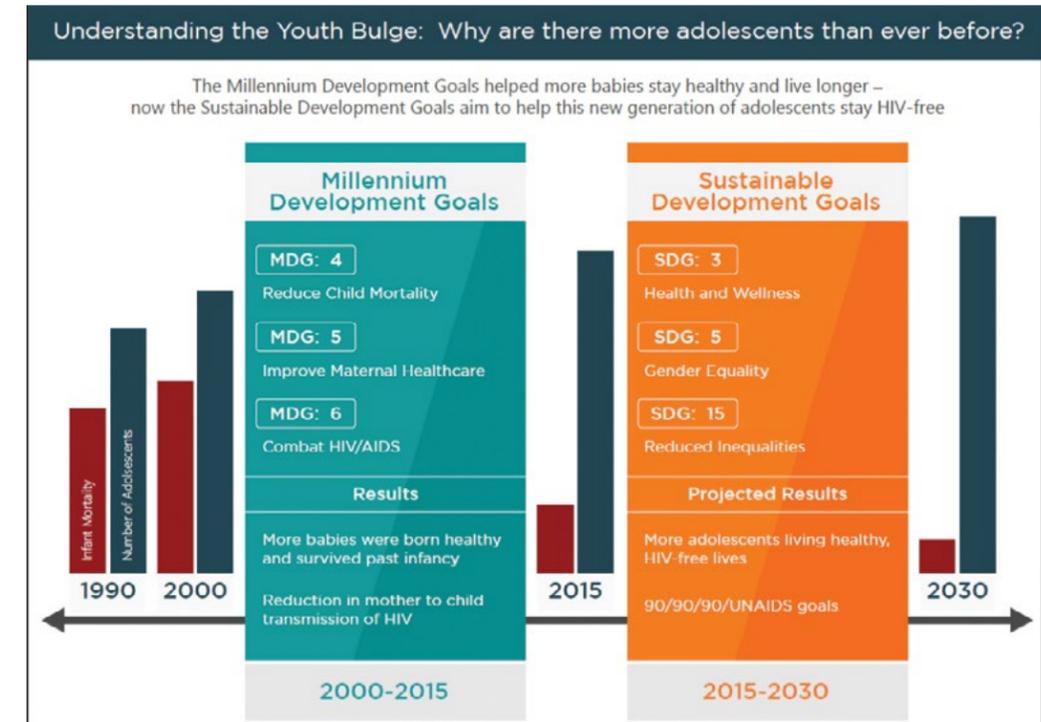
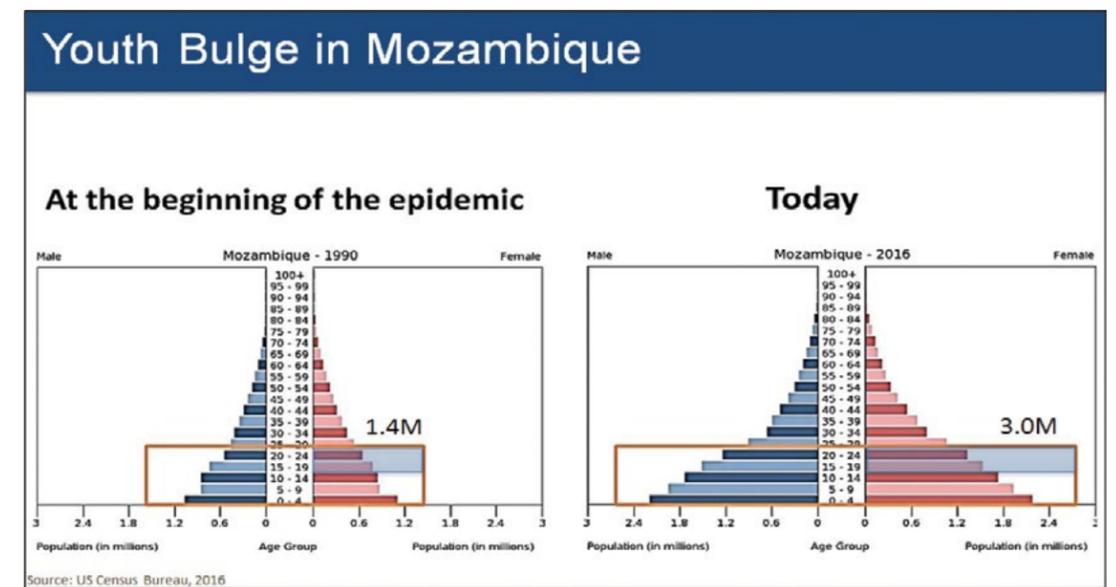


Figure 18. Youth Bulge in Mozambique





■ A family in Nigeria.

We intend on increasing program effectiveness through enhanced interventions and continued geographic and population focusing to prevent new HIV infections in sub-Saharan Africa that are rising by 25–26 million by 2030 and nearly doubling the current cost globally to provide needed services.³ The escalating cost of treatment to save lives cannot be sustained by any combination of financing from the host country; the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund); or PEPFAR. We are at a moment in time when we have the tools to change the course of the epidemic and are beginning to see these promising results. However, we must continually use granular data and laser-focus for every dollar spent. Otherwise, we will face an epidemic that will once again spiral out of control, reversing our investments to date.

APPENDIX D: HIV Infections Averted Due to PEPFAR and Global HIV Response

Modeled data suggest that a cumulative total of nearly 16 million HIV infections globally have been averted since the beginning of the epidemic, including 11.3 million HIV infections in sub-Saharan Africa, due to PEPFAR and the global HIV response. Estimating the number of HIV infections averted has historically been primarily dependent on mathematical modeling. However, the rate of new HIV infections (incidence) is now measured directly and estimated more precisely through a series of PHIA in 13 countries, three of which are completed and the other 10 ongoing. Additionally, PEPFAR

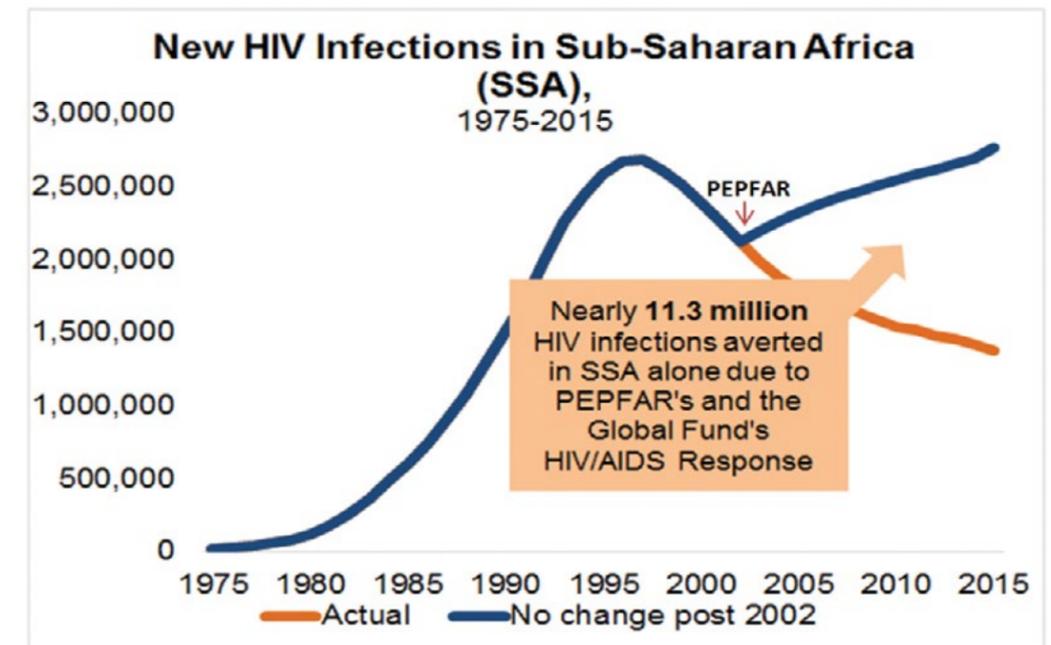
is continuing to model partner countries' results with the most recent national data available from UNAIDS using the Goals model, which developed a method for costing and resource allocation during the development of national HIV/AIDS strategic plans and investment framework.⁴

Figure 19 illustrates the impact of PEPFAR and the global HIV/AIDS response on new HIV infections in sub-Saharan Africa. The first trend line (“no change”) depicts new HIV infections in sub-Saharan Africa without more than a decade of investments for treatment and prevention from PEPFAR, the Global Fund, and the countries themselves. The second trend line (“actual”) estimates the impact of the HIV

prevention and treatment interventions implemented with PEPFAR, the Global Fund, and host country investments since 2002.

The cumulative result of these differences over time indicates that approximately 11.3 million new HIV infections were averted due to the global HIV/AIDS response. Validation of this modeled data is proceeding in two ways: First, three combination prevention studies in five countries (Botswana, Kenya, South Africa, Uganda, and Zambia) will measure HIV incidence directly, and second, PHIA will measure HIV incidence, prevalence, and viral load suppression among adults and children. Preliminary results from PHIA in three countries are included in Appendix F.

Figure 19. Modeling New HIV Infection Trends in Sub-Saharan Africa, with and without PEPFAR and the Global HIV/AIDS Response



³ UNAIDS. (2014). *Fast-Track—Ending the AIDS Epidemic by 2030*. Geneva.

⁴ Stover, J., Walker, N., Garnett, G., et al. (2002). Can we reverse the HIV/AIDS pandemic with an expanded response? *The Lancet*, 360, 73–77.

APPENDIX E: Global Prevalence – Refining PEPFAR’s Impact and Progress Toward Epidemic Control and Implications of Out-Year Costs

According to UNAIDS,⁵ eastern and southern Africa accounted for 46 percent of the 2.1 million new HIV infections globally in 2015, down from 52 percent in 2003. More than 90 percent of PEPFAR’s COP resources are invested in sub-Saharan Africa. The report notes that focusing on populations that are underserved and at higher risk of HIV is essential to ending the AIDS epidemic. This principle underpins the PEPFAR 3.0 strategy: doing the right things, in the right places, in the right way, and at the right time to achieve maximum impact.



■ A health care worker in Thailand providing HIV prevention services.

On a country-by-country basis, there are four general patterns of prevalence (Appendix W):

» The first category includes prevalence curves that exhibit a generally flat profile (e.g., Kenya [Figure 20], Lesotho, Mozambique, Namibia, South Africa, Swaziland) based on a rate of new infections that is consistently greater

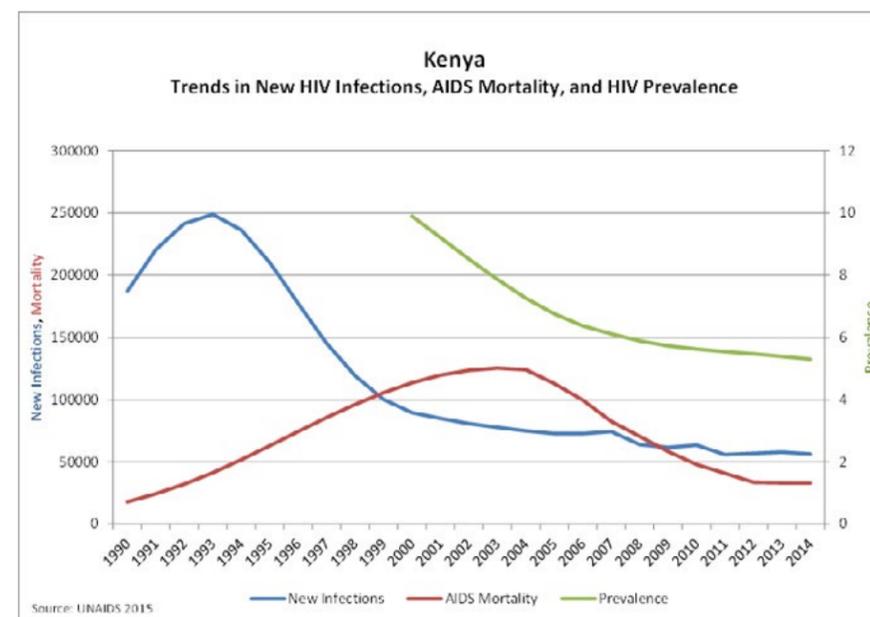
than mortality. This pattern suggests that the new infections “replace” those persons lost due to AIDS-related mortality, resulting in a flat trajectory. The total burden of disease remains constant, and thus costs are increasing as coverage of services increased and countries adopt new eligibility criteria that all PLHIV now benefit from HIV treatment. This increase in treatment refers to the “Treat ALL” recommendation from the World Health Organization (WHO), also called “Test and START” by PEPFAR. To decrease cost, increasing effective prevention and decreasing the cost of treatment services will be essential.

» The second category includes countries in which new infection rates are slightly lower than or nearly equal to mortality rates (e.g., Tanzania [Figure 21], Ethiopia, Ghana, Haiti, Malawi, Zimbabwe). Prevalence rates exhibit a downward trend, and there is a sustained decline in new infections. In these countries, the disease burden is decreasing, and cost increases are primarily driven by expanding service delivery coverage of combination prevention in high-transmission areas to ensure the rates of new infections remain in check. Overall, out-year costs will begin to decline as the cohort ages. In high-transmission areas, it is important to ensure that patients adhere to and are retained on treatment to maintain viral load suppression and epidemic control.

» The third category comprises countries with curves trending downward but not as sharply as those in the previous class. This category includes a mix of countries that have new infection rates that are slightly greater than mortality rates (e.g., Botswana [Figure 22], Nigeria, and Rwanda). Some countries, such as Botswana and Rwanda, have excellent service coverage and marked decreases in deaths due to AIDS, but epidemic control

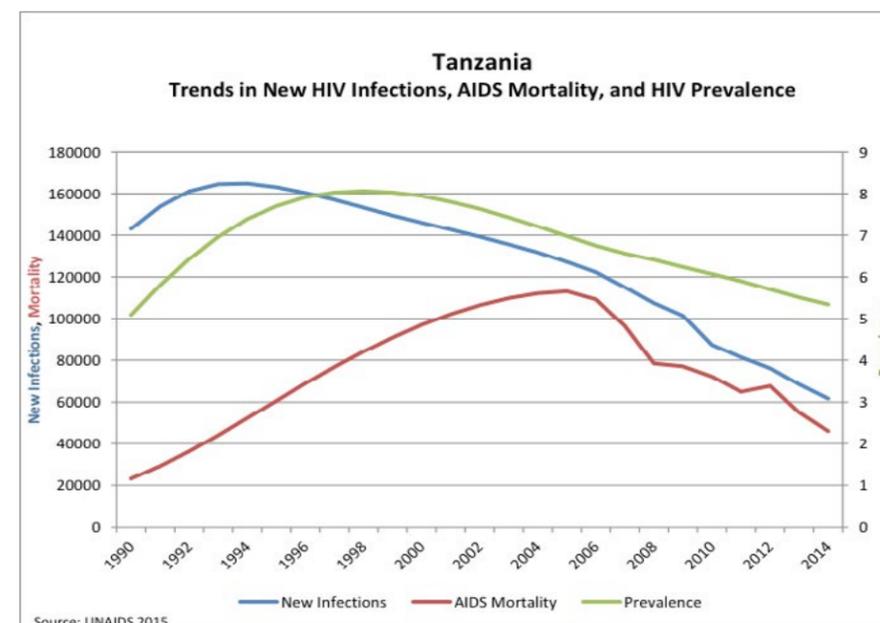
⁵ UNAIDS World AIDS Day 2016 Fact Sheet.

Figure 20. Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence – Kenya



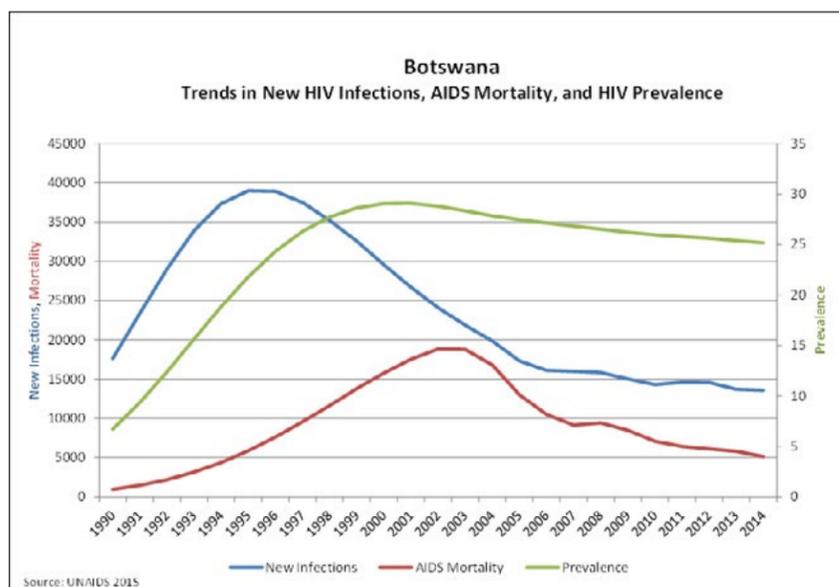
Source: UNAIDS 2015

Figure 21. Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence – Tanzania



Source: UNAIDS 2015

Figure 22. Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence – Botswana



has not been achieved due to the rate of new infections. In Nigeria, where core service coverage is poor, high AIDS-related mortality persists, and new infections continue despite significant investment from PEPFAR and the Global Fund. Costs will continue to escalate so long as service coverage remains inadequate. PEPFAR and Nigeria have been in long-term discussions on increasing focus to demonstrate impact.

new interventions are showing impact. However, this is a warning for all countries of what can occur if continual analysis, focus, and efforts to control the epidemic are not maintained.

» The final category is composed of countries with a prevalence rate trending upward, and with a new infection rate that is significantly greater than the mortality; currently, only Uganda (Figure 23) falls into this category. Uganda demonstrates how easily progress can be reversed and previous gains lost. Bringing this expanded epidemic back under control is costly. Since 2012, PEPFAR has increased its investments and focus, and these

Additional core measures of success in the global HIV/AIDS response are incidence and mortality rates. These two data points provide the most direct evidence of how well an epidemic is transitioning in a country and how well the combination of prevention services is controlling this movement. However, in PEPFAR 3.0, we show outcomes and now impact through our new comprehensive PHIA's in which prevalence, incidence, historic mortality, and service coverage down to the household level are measured. Table 1 shows the timeline and countries where these surveys are being conducted and where we are directly measuring impact.

Figure 23. Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence – Uganda

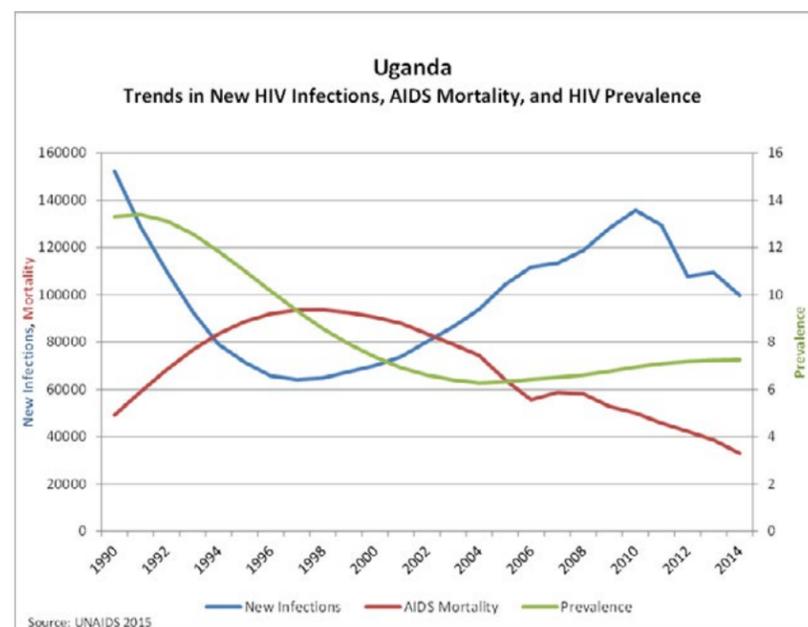


Table 1. Implementation Timeline of HIV Impact Assessments

	Completion Date (or expected)
Malawi	2016
Zambia	2016
Zimbabwe	2016
Lesotho	2017
Swaziland	2017
Tanzania	2017
Uganda	2017
Cameroon	2017
Cote d'Ivoire	2018
Ethiopia	2018
Namibia	2018
Haiti	TBD*
Kenya	TBD*

*Kenya and Haiti are currently planning their upcoming PHIA's. Estimated date of completion is not available at this time.

Table 2. Results of PEPFAR Population-Based HIV Impact Assessments

Results of the PEPFAR Population-based HIV Impact Assessments

Country	HIV Prevalence 15-49	Percent Decline in Prevalence 2003-2015	HIV Incidence 15-49	Percent Decline in Incidence 2003-2015
Zimbabwe				
2003 UNAIDS	20.4		1.44	
2015 UNAIDS	14.7		0.88	
2016 IMPACT results	14.0	31%	0.48	67%
Malawi				
2003 UNAIDS	15.2		1.33	
2015 UNAIDS	9.1		0.38	
2016 IMPACT results	10.0	34%	0.32	76%
Zambia				
2003 UNAIDS	14.6		1.44	
2015 UNAIDS	12.9		0.85	
2016 IMPACT results	11.6	21%	0.70	51%



■ Young girls in Brazil.

rates represent the proportion of all PLHIV, not limited to only those with a known HIV status. Previously shown in Figure 2, the final green bar on each cascade for Malawi, Zambia, and Zimbabwe represents the proportion of people who are on HIV treatment and are also virally suppressed. In this example, Malawi’s suppression rate is 90 percent, which means that of all PLHIV that are currently on HIV treatment, 90 percent are currently virally suppressed.

For this reason, suppression rates appear to be different in each figure, but highlight the need to continue our work to ensure that all PLHIV know their status and are offered treatment in order to reach 90-90-90 in each country. This is measuring adherence to medication and clearly demonstrates that once someone knows they are HIV-positive and accesses treatment, they stay on treatment. This is very encouraging and demonstrates that the gap is awareness of HIV infection—less than half of those under 25 years old know they are HIV-positive (previously shown in Figure 3).

PEPFAR will continue to scale up viral load testing over the next few years. Routine viral load monitoring is now recommended by WHO and forms the cornerstone of the third “90” of the UNAIDS 90-90-90 goals. Patients who are known to have an undetectable viral load can also safely reduce clinic visits and duration between pharmacy drug refills—from monthly to quarterly or longer—thus reducing the burden on stable patients and decongesting health services.

APPENDIX F: Rates of Adherence and Retention

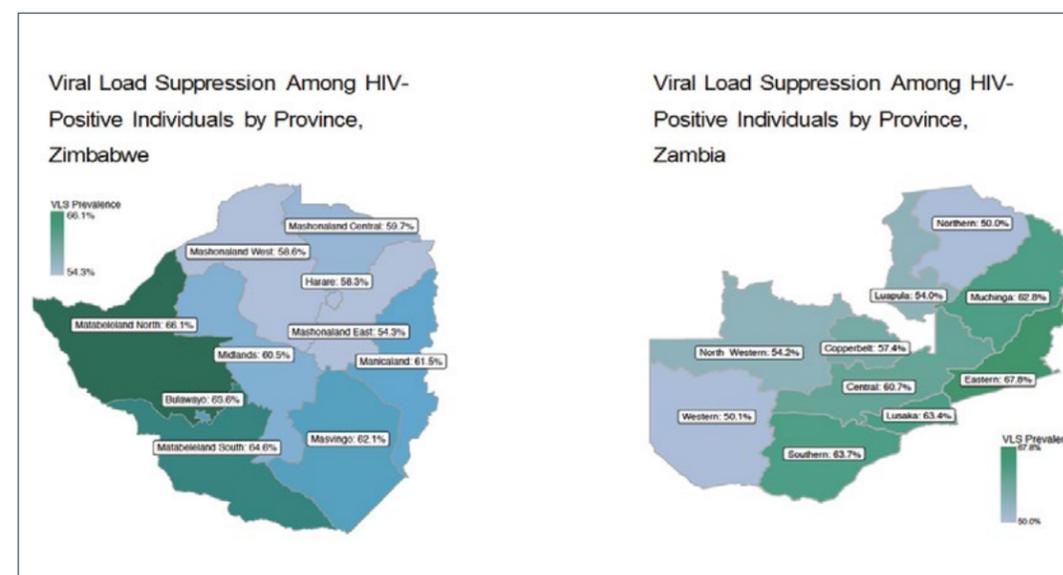
PEPFAR evaluates rates of adherence and retention across all supported countries by examining the total number of people on treatment from one year to the next; this determines how many have stopped their treatment regimen, have been lost to follow-up, or have potentially died. Generally, this involves monitoring a cohort of individuals who have been on ART for 12, 24, and 36 months or longer. At the end of FY 2016, PEPFAR maintained a 77 percent retention rate at 12 months on ART (Appendix W).

Reviewing country- and community-level retention rates has helped PEPFAR treatment programs focus on both geographic and programmatic gaps to ensure that individuals who start their treatment remain on it for life for their health. Lesotho had a treatment

retention rate of 71.7 percent in 2013. However, after ensuring a consistent stock of drugs and supplies, conducting appropriate clinical staff support training on retention issues, and making improvements in loss-to-follow-up and contact tracing, the program’s retention rate increased to 83.6 percent in 2014. As PEPFAR has focused on achieving the first and second “90” in high-burden areas, adherence and retention remain critical to ensuring that transmission, incidence, and costs decline.

Importantly, the three initial PHIA’s have shown an impressive overall viral suppression for individuals on HIV treatment, demonstrating a very high level of retention and adherence to treatment and high durability of first-line antiretroviral (ARV) medications. Figure 24 shows rates of viral load suppression among all PLHIV in each district of Zambia and Zimbabwe independent of age or knowledge of HIV infection. It is important to note that these suppression

Figure 24. Viral Load Suppression Among HIV-Positive Individuals by Province in Zambia and Zimbabwe



Effective prevention programs, alongside treatment and viral suppression in 90 percent of HIV-infected individuals within geographically prioritized areas, will prevent the majority of transmissions and lead to eventual epidemic control. During the 2016 COP/ROP process, PEPFAR provided a select group of countries with catalytic funds for viral load scale-up. During the 2017 COP/ROP process, all PEPFAR-supported countries with site-level availability of viral load testing, national planning, and use of results to provide differentiated patient care have made plans to scale up viral load testing in efforts to monitor progress toward the third “90.”



■ Dr. Linda-Gail Bekker, Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases, and Ambassador Deborah L. Birx speak to conference attendees at the AIDS 2016 Conference in Durban, South Africa.

Like treatment coverage, rates of viral load suppression can differ geographically. In their most recent PHIA, Zambia and Zimbabwe note that the overall national rates of viral load suppression are 59.8 percent and 60.4 percent respectively for all HIV-positive individuals. In Zimbabwe, suppression ranges between 54 percent and 66 percent of all HIV-positive people depending on the province. With national suppression rates already this high, both countries are well on their way to reach the third “90” goal of having 73 percent of all PLHIV virally suppressed. Critically, the viral load suppression for those on treatment range from 86 percent to 91 percent, showing high levels of drug effectiveness and individual adherence.

Also, the data show the difference between national viral suppression and those on treatment is the gap of those who know their status and not a function of poor retention.

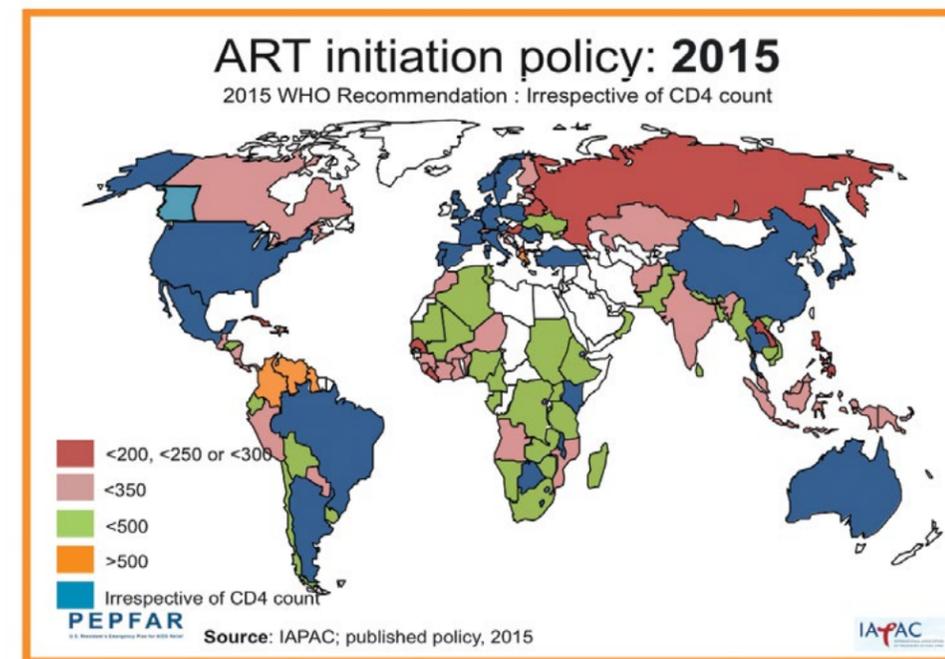
APPENDIX G: HIV/AIDS Guidance – New Guidelines: Impact on the Epidemic and Policy Change as Part of Shared Responsibility

The WHO is the leading institution responsible for establishing international normative guidance related to HIV/AIDS programs. In June 2016, the WHO released the full Consolidated ARV guidelines providing comprehensive recommendations on HIV treatment and ARV-based prevention, including pre-exposure prophylaxis (PrEP). All PLHIV are now eligible for starting ART as soon as they are diagnosed, allowing them to remain healthier and greatly reduce their risk of transmitting the virus to others.

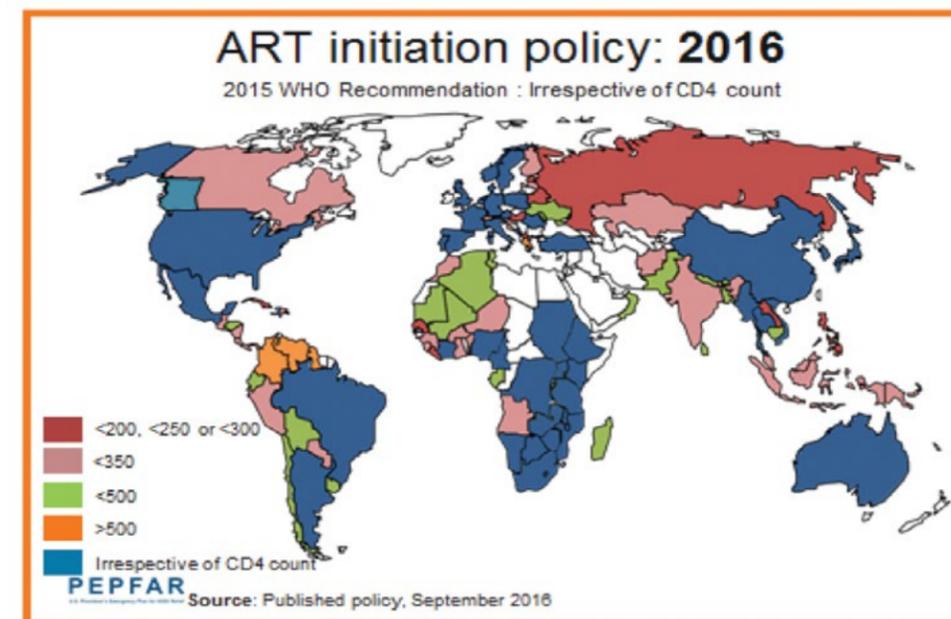
These guidelines offer important recommendations for reconceptualizing service delivery models to offer more streamlined services to patients who are clinically well (stable on ART or newly initiating with few symptoms)—estimated to be 80 percent—and more intensive services to those who need it (patients with clinical disease or who are failing therapy)—estimated to be less than 20 percent. These guidelines also promote more patient-friendly services and expansion of community-based models.

For stable patients (who may account for as much of 80 percent of all persons on ART), spacing out clinic visits and drug refills offers an important opportunity to treat more patients with existing resources. As the costs of ARVs have declined over the last decade, the costs of ART are now driven largely by service delivery

Figures 25A and 25B. Adoption of WHO Guidelines Recommending a Test and START (Treat ALL) Strategy – Progress from 2015 to 2016



A



B

rather than drug costs. Streamlining service delivery and decreasing these costs have been the program's focus over the last year.

Through its annual country planning process, PEPFAR has promoted the rapid adoption and implementation of this new WHO guidance at the country level. To date, many countries have adopted a Test and START or Treat ALL (these terms are synonymous) approach (Figures 25A and 25B). Early experience from country programs adopting this approach, as measured through quarterly data reviews, suggest that programs have seen a large influx of persons known to be positive but not yet on ART. These programs have had success in rapidly initiating these persons on treatment—including on the same day that they tested HIV-positive.

With PEPFAR and other donor support, countries are beginning to scale up PrEP to HIV-negative persons at highest risk. In July, the WHO released implementation guidance to help countries operationalize PrEP. PEPFAR is supporting the scale-up of PrEP in key populations and for young women at highest risk through DREAMS and other programming. PEPFAR is engaging in public-private partnerships (PPP) to roll out the provision of PrEP. For example, Gilead is purchasing medication and paying for operational expenses for the procurement, transportation, and dissemination of PrEP for young women who are uninfected but at substantial risk for acquiring HIV.

WHO guidance on HIV self-testing and assisted partner notification was released in December 2016. This approach offers an important opportunity to expand testing to groups that have a lower likelihood of receiving HIV testing in traditional settings such as health facilities. This includes men of all ages and key populations. Data

from pilot programs suggest there is great potential to add this to a range of effective testing modalities.

The implementation of this policy change is essential to controlling the pandemic. By adopting the WHO's treatment recommendations for Test and START (Treat ALL) as well as models of differentiated service delivery, we can serve two patients with the same resources currently required for one, without reducing either quality of care for patients or their adherence to treatment (Figure 26). This will expand our impact, saving more lives and averting more infections.

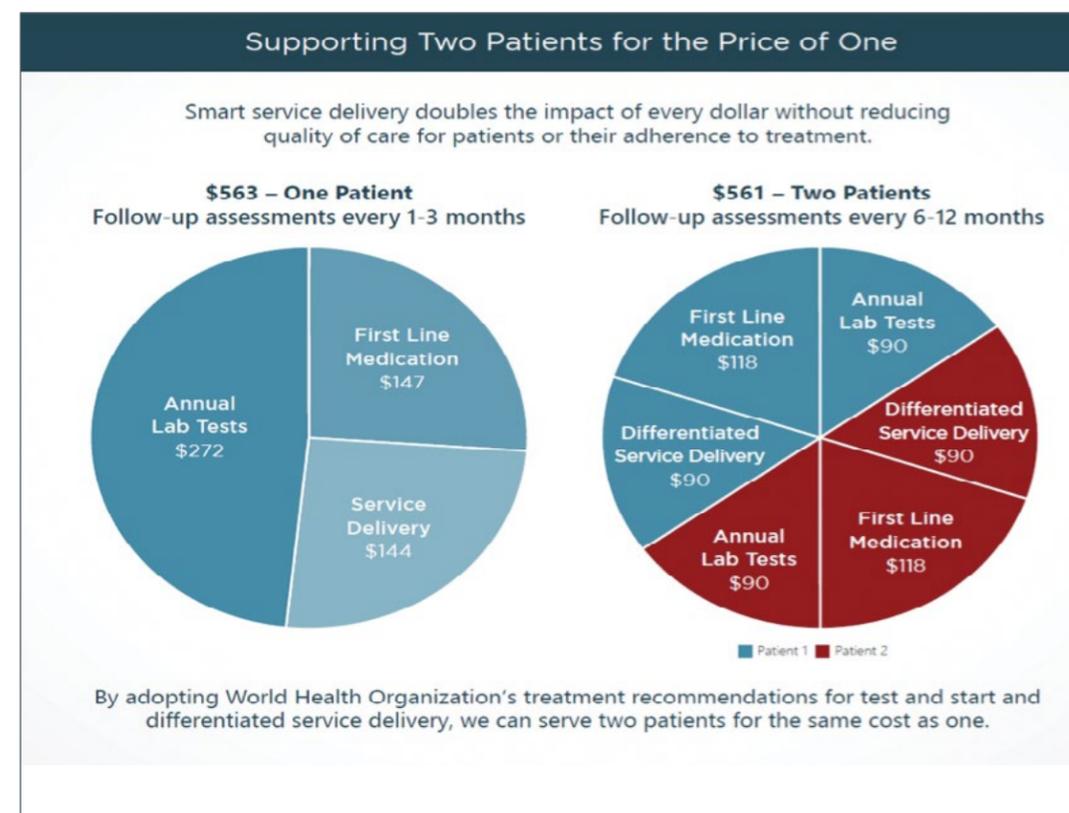
APPENDIX H: HIV Burden and Treatment Response

There are an increasing number of PLHIV, which is consistent with the wider availability of lifesaving treatment that has kept millions of people alive who would have previously died. At the end of 2015, 36.7 million people were living with HIV globally, including nearly 25 million in sub-Saharan Africa. As treatment programs are implemented across partner



■ Military women and doctors discuss how to prevent gender-based violence (GBV) and HIV within Mozambique's armed forces, at the Military Hospital in Maputo.

Figure 26. Supporting Two Patients for the Price of One



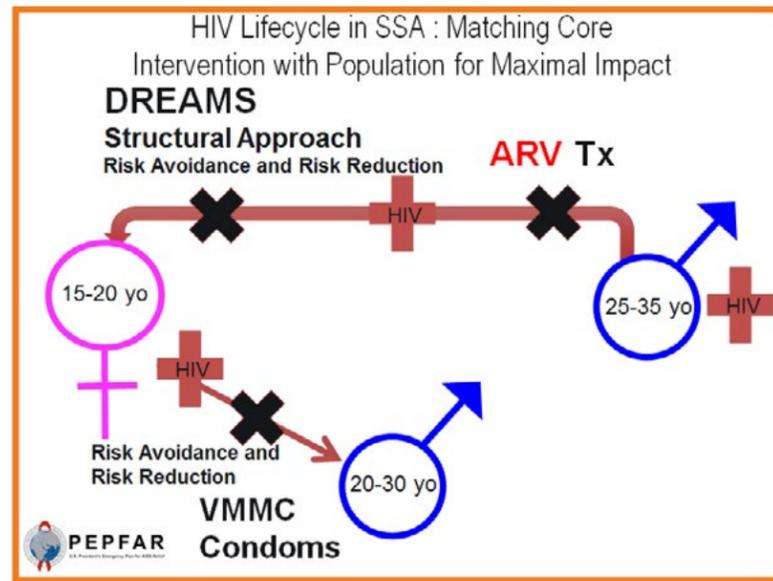
countries, PLHIV are living longer and more productive lives. This year alone, 10–15 percent of people on PEPFAR-supported treatment were over 50 years old.

The number of persons on treatment and lives saved increased from 2009 to 2015 with the creation of PEPFAR and the Global Fund (Figure 29). In the large majority of countries, expansion of treatment was slow but steady from 2004 to 2007 (PEPFAR Phase I), after which enrollments increased. From 2008 to 2010 (beginning of PEPFAR Phase II), enrollments rapidly increased and have continued along similar trajectories. In 2014, PEPFAR partnered with countries to refocus efforts to high-burden areas and started monitoring the epidemic at the community level, accelerating progress with sustainable results. From 2015 to

the current reporting period, enrollment has increased even more rapidly, in a revenue-neutral manner, as programs increase efficiency and move toward epidemic control (Figure 29).

The rapid implementation of evidenced-based interventions is fundamental to driving the dramatic shifts we have seen to date in new infection and mortality rates. Ongoing success toward the creation of an AIDS-free generation is completely dependent on continuing and accelerating this momentum. Figures 30A and 30B show the concerning evidence that fewer individuals under 25 years old know their HIV status, are on treatment, or are virally suppressed. When this evidence is combined with the doubling of the population aged 15–24 in sub-Saharan Africa, the HIV pandemic could dramatically expand without concentrated

Figure 27. HIV Lifecycle in Sub-Saharan Africa: Matching Core Intervention with Populations for Maximal Impact



and concerted effort to reach this age group. PEPFAR's focus needs to continue to evolve as data comes available. To ensure this new expanding element of the epidemic can be controlled, last year focused and this next year will focus intensely on 9–14 and 15–24-year-old adolescent girls and young women (AGYW) through increased prevention efforts such as

- » increasing risk avoidance and GBV prevention;
- » expanding the effective components of the DREAMS partnership;
- » providing VMMC to young men; and
- » increasing outreach to 20–34-year-old men for HIV testing and linking to treatment.

As shown in Figure 29, there has been a dramatic increase in people receiving ART since 2004 across PEPFAR-supported countries. Of con-

cern, there was a flattening of the treatment expansion slopes in the 2013–2014 timeframe in most countries. Yet, the slope continued to recover in 2014–2016, with the realignment of resources to the congressional 50 percent care and treatment earmark, and the program is closely tracking both the slope of scale-up of services and the geographic coverage. This is to ensure countries are reaching at least 80 percent treatment coverage at the subnational level while community viral load levels are suppressed to undetectable. It is clear that both the speed to reach greater service coverage and the percentage coverage are important to controlling the HIV epidemic. The commitment to monitor treatment coverage saves lives and decreases transmission.

ART coverage rates combine the figures for persons on treatment and those who need ART (as modeled by countries and UNAIDS as all

Figure 28. Cumulative Trends of Persons Living with HIV, Sub-Saharan Africa — 1990–2015

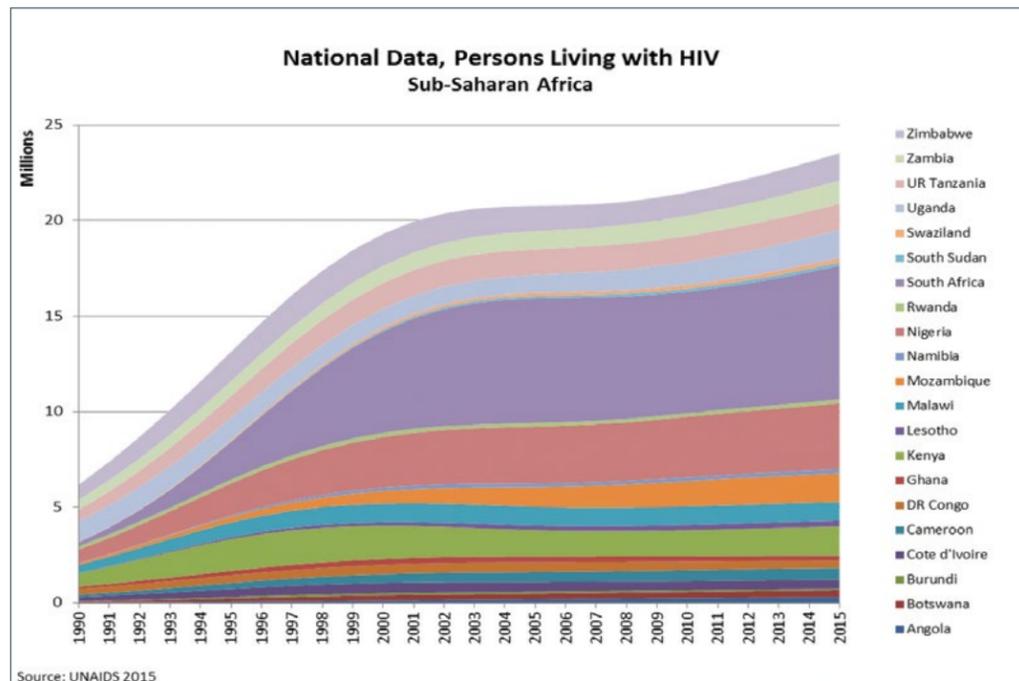
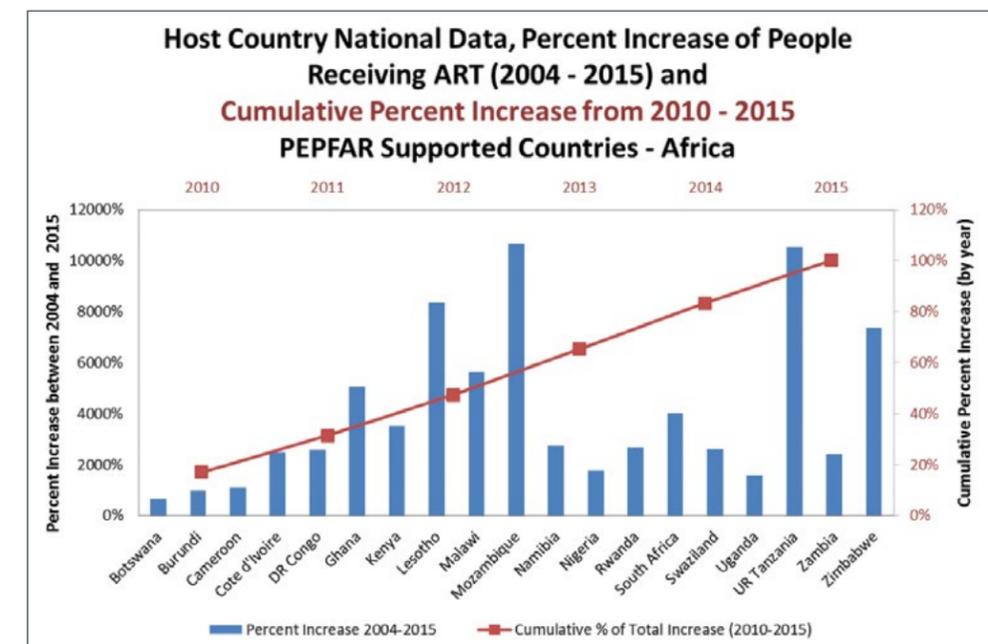


Figure 29. Host Country National Data, Percent Increase of People Receiving ART, (2004–2015) PEPFAR Supported Countries-Africa

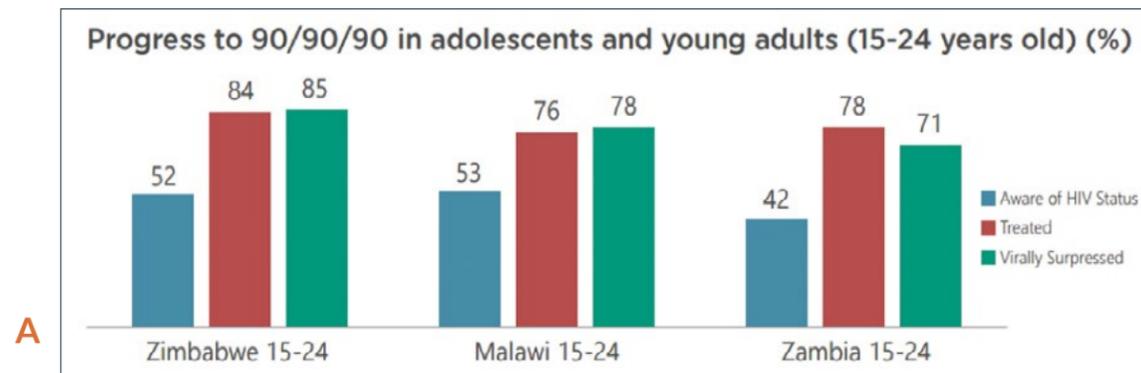




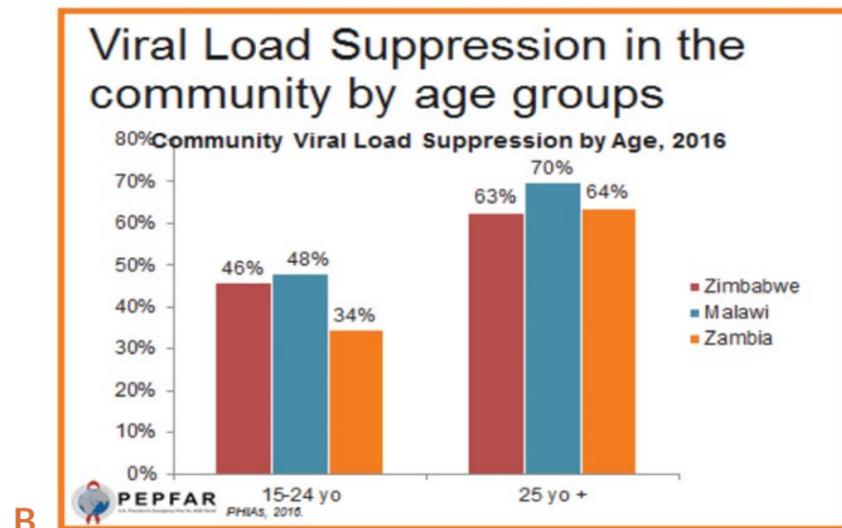
■ A young girl writes a message about HIV awareness in Ukraine.

persons with HIV infection). These rates provide a telling story of progress in each country (Appendix W). As demonstrated by Figure 31, all partner countries are on an upward trend in their responses. Some indications suggest that countries with HIV prevalence greater than 5 percent are improving at a slightly accelerated rate. Considerable variation exists on a country-by-country basis. This provides further evidence supporting PEPFAR's strategy to utilize its resources to support services in settings with the greatest need and potential for greatest impact. This strategic focus remains a

Figure 30A. Progress Toward 90-90-90 in Adolescents and Young Adults in Zimbabwe, Malawi, and Zambia
Figure 30B. Viral Load Suppression in the Community by Age Groups

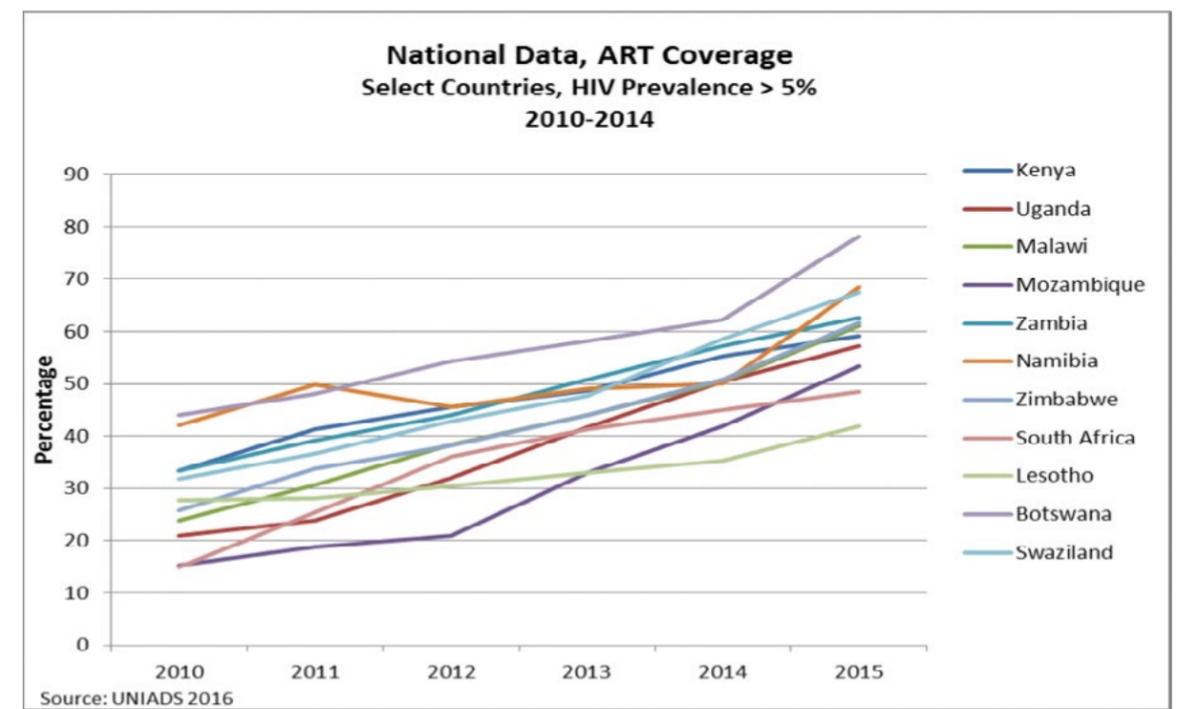
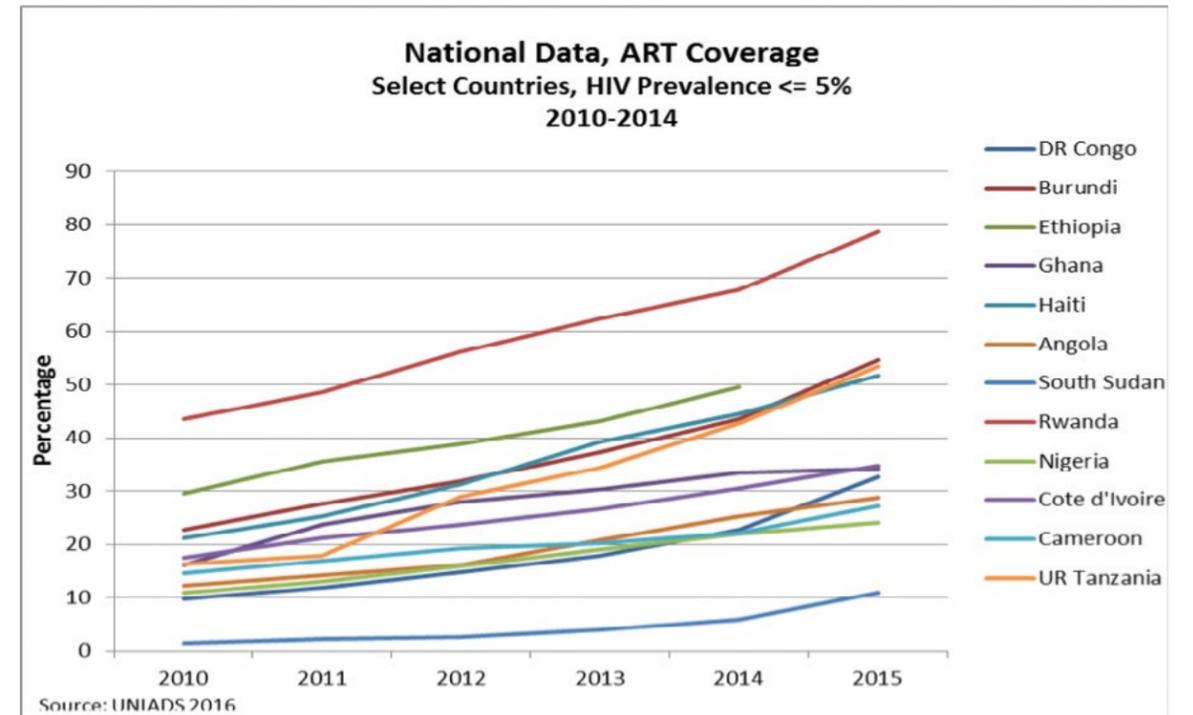


A



B

Figure 31. Trends in ART Coverage, Select Countries, 2010-2015



priority to ensure that countries are capable of aggressively addressing their epidemics within the current envelope of global HIV/AIDS funding. Viral loads must be suppressed to create an AIDS-free generation and allow communities and countries to thrive.

One of the more important milestones toward controlling the epidemic is when the annual number of new enrollments in treatment approaches 80 percent at the national level. This transition point reflects a care and treatment scale-up rate that is successfully limiting the transmission of HIV to uninfected persons. A lower number of new infections suggests that the future influx of patients requiring treatment will be more manageable, smaller, and less expensive—causing the epidemic to contract.

This shift in trends, while important in the ongoing effort to control the epidemic, does not imply that continuing efforts can slow down. Any faltering of national treatment efforts may return the trend lines to an earlier, more negative pattern, once again driving up new HIV infections. Any drop in adherence or re-

tention will result in increasing viral loads and substantial surges in HIV transmission.

APPENDIX I: Supportive Care

In February 2014, PEPFAR developed a strategy for the prioritization of care and support interventions based on an extensive, in-depth review of evidence and best practices. Four, universally applicable activities were identified as priorities for the greatest impact on reducing AIDS-related morbidity and mortality:

- » Regular clinical and viral load monitoring.
- » Screening and treatment for active TB and prophylaxis for those without active TB.
- » Cotrimoxazole prophylaxis for opportunistic infections per country guidelines.
- » Clinical and nonclinical evidence-based interventions to optimize retention and adherence including PLHIV support groups in the community.

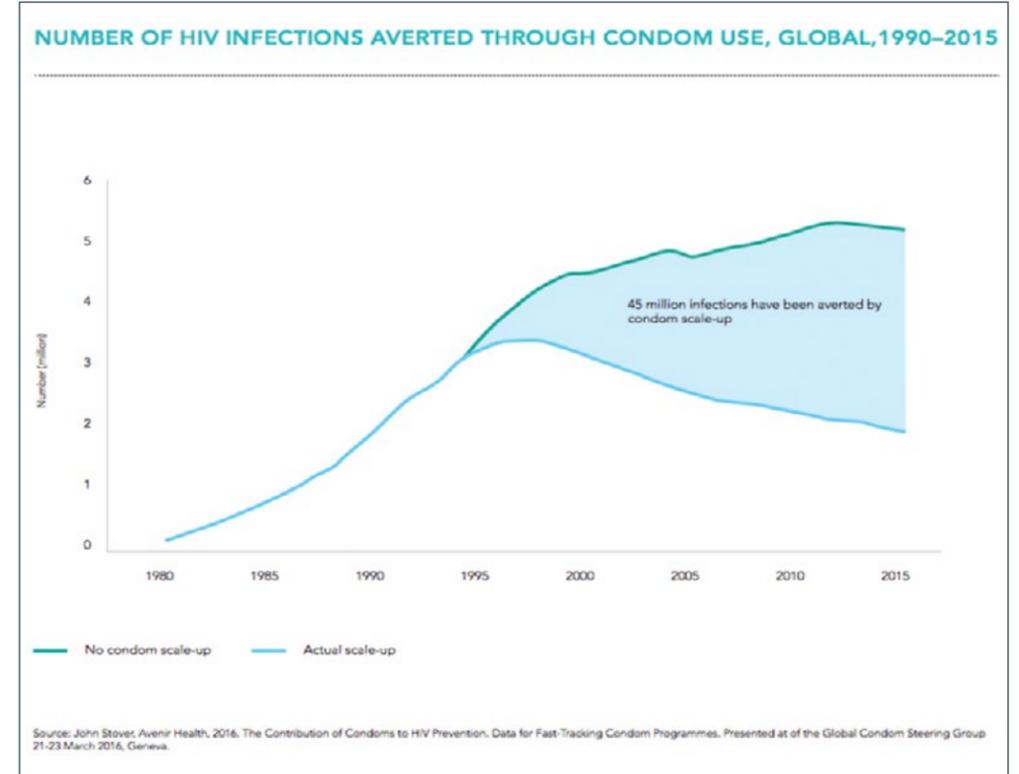
Based on the evolution of WHO guidelines to recommend treatment for all PLHIV, care and treatment has been collapsed to be one entity, consistent with the guidelines. As a result, additional focus will be placed on strategies to improve linkages, adherence to and retention of care and treatment, viral load monitoring, diagnosis and treatment of TB co-infection, and preventing TB reactivation.



CREDIT: USAID

■ An HIV Testing Counselor in Kenya.

Figure 32. Model of the Estimated Number of Infections Averted by Condom Scale-Up



Source: John Stever, Avenir Health, 2016, The Contribution of Condoms to HIV Prevention, Data for Fast-Tracking Condom Programmes, Presented at of the Global Condom Steering Group 21-23 March 2016, Geneva.

APPENDIX J: PEPFAR and Prevention Interventions

Prevention, treatment, and care have been the three pillars of PEPFAR programming since its inception in 2003. This comprehensive approach was mandated by Congress in PEPFAR’s initial authorizing legislation and has been included in each subsequent reauthorization.

PEPFAR’s implementation of evidence-based HIV prevention includes ART and viral suppression for those living with HIV, which reduces transmission to partners by at least 96 percent. Prevention services are grouped together in a comprehensive package for maximum impact, which can include condom programming, behavioral and structural interventions, risk avoidance and reduction, PrEP with ARVs, HTS, VMMC for HIV-negative young men, and PMTCT. These prevention activities target

those most at risk of HIV acquisition, including AGYW and priority and key populations. In FY 2016, PEPFAR reached more than 6.7 million members of priority populations and more than 1.8 million members of specific key populations with HIV prevention packages (Appendix W). Figure 32 shows the impact of global condom programming scale-up, estimated to have averted 45 million new HIV infections from 1990–2015 through consistent and regular condom use.

In FY 2016, PEPFAR supported HTS for more than 74.3 million people, providing a critical entry point to prevention, treatment, and care (Appendix W). Ambitious testing targets were set in cooperation with partner countries and are key to achieving the first of UNAIDS 90-90-90 goals: 90 percent of all PLHIV will know their status by 2020.



■ Participants gather in advance of a procession in Tanzania to advocate against gender-based violence.

Global results have shown dramatic improvement in preventing babies from being born with HIV but much less of an impact on reducing new adult infections, demonstrating a need to refocus on prevention in young adults. PEPFAR has been enormously successful in PMTCT implementation, dramatically decreasing new pediatric infections and helping mothers with HIV live active, productive lives. These programs will continue to be a cornerstone of PEPFAR. Protecting and ensuring that babies remain HIV free has resulted in significant improvements in under age 5 survival rates, reflected in the impressive progress achieved toward the Millennium Development Goals (MDGs). The next challenge is keeping these babies HIV free as they age into adolescents and young adults under age 30, a group at the highest risk for contracting HIV and least likely to know their HIV status or understand their HIV risk. PEPFAR has recently increased investments in HIV prevention, particularly among young people. Over the past 18 months,

PEPFAR has prioritized preventing HIV infections in young men and women through VMMC and comprehensive programming (including PrEP), respectively. We are ensuring that every girl can grow up into a Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe woman through our DREAMS PPP with the Bill & Melinda Gates Foundation, Girl Effect, Johnson & Johnson, Gilead Sciences, and ViiV Healthcare. In its first year of implementation, DREAMS has already reached 1 million AGYW, ages 15–24, with interventions that go beyond the health sector and address the structural drivers that increase girls' HIV risk, including poverty, gender inequality, sexual violence, and lack of access to an education. In 10–14-year-old young girls, the program has focused on risk avoidance and strengthening families and communities to embrace and protect their girls. In FY 2017, PEPFAR will continue to maximize program impact through testing, treatment, and prevention services for adolescents and young adults under age 30.

APPENDIX K: Prevention of Mother-to-Child Transmission (PMTCT)

PEPFAR remains fully committed to working toward the elimination of new HIV infections among children and keeping their mothers alive. A cumulative total of nearly 2 million infant HIV infections have been averted since the beginning of PEPFAR—with nearly half of that progress achieved since 2013. That means babies are surviving HIV free, and their mothers are staying healthy and AIDS free to protect and nurture them. Since the announcement of the *Global Plan Towards the Elimination of New HIV Infections Among Children by 2015 and Keeping Their Mothers Alive* at the United Nations in June 2011, the number of new HIV infections in infants each year has dropped by 60 percent in the 21 Global Plan priority countries in sub-Saharan Africa. Through the *Start Free Stay Free AIDS Free* initiative, PEPFAR and multilateral partners will continue to work toward elimination of mother-to-child transmission by preventing infections in HIV-free young women and identifying and providing treatment to those living with HIV.

PEPFAR has invested significantly in PMTCT and provided extensive support for the use of lifelong ART for all HIV-infected pregnant and breastfeeding women, an approach that leads to the best outcomes for women and their partners and children. In 2013, PEPFAR-supported countries were advised to rapidly implement ART for pregnant women as recommended by the 2013 WHO Consolidated Treatment Guidelines. In FY 2014 alone, the proportion of HIV-positive pregnant women receiving ART increased from 60 percent to 90 percent, and now stands at 99.5 percent.

Following recommendations of the 2015 *WHO Guideline on When to Start Antiretroviral Therapy and on Pre-exposure Prophylaxis for HIV*,⁶

⁶ WHO. (2015). *Guideline on When to Start Antiretroviral Therapy and on Pre-exposure Prophylaxis for HIV*.



■ Nurse-midwife congratulates graduating infant from the prevention of mother-to-child transmission of HIV (PMTCT) program at a health center in Uganda.

PEPFAR has worked to ensure that all supported countries are providing lifelong ART to pregnant women living with HIV. The WHO 2015 guidelines provided a unique opportunity to evolve the message to pregnant mothers from a focus of preventing infection in their babies during pregnancy and breastfeeding to how treatment will save their lives and allow them to thrive.

Efforts have focused on providing funding and technical support to improve every step of the treatment and care continuum from HIV testing to treatment for mothers and follow-up testing for babies. This ensures an effective PMTCT cascade of interventions—antenatal services, HIV testing, and use of ART during pregnancy; safe childbirth practices and appropriate breastfeeding; and infant HIV testing and other postnatal care services—that results in an HIV-free baby and a mother with a suppressed viral load. In addition, PEPFAR will increase the focus on keeping pregnant women who test negative for HIV free from infection through increased partner testing, prevention education, and provision of PrEP for pregnant women at high risk of acquiring HIV. Such interventions will enable PEPFAR to identify

and provide immediate treatment for men living with HIV and referral of VMMC for those who are negative, and will also allow PEPFAR to educate and empower women to protect themselves.

In FY 2016, PEPFAR directly supported HTS for more than 9.1 million pregnant women and provided technical support to clinics that tested an additional 2.3 million (Appendix W). PMTCT service coverage, as well as an effective cascade of services, are variable and differ greatly between communities. PEPFAR uses site-specific data to ensure resources are focused in the highest-burden areas with the greatest need to maximize the impact on babies and their mothers. The ultimate goal is to increase antenatal care attendance for all women and to test 95 percent of all pregnant women receiving an antenatal care visit, independent of country or community.

PEPFAR has continued to shift resources to high-burden areas to ensure strong linkages for HIV-positive pregnant women to the continuum of care. An additional benefit of this site-level analysis is the utilization of program data to geographically map the HIV epidemic at a granular level. This analysis is being replicated across partner countries to further focus

the HIV response and understand the evolving epidemic at a geographic and facility level.

In FY 2016, 11.5 million pregnant women learned their HIV status with PEPFAR support. Of those identified as HIV-positive, 98 percent received ARVs during their pregnancy to reduce vertical transmission, and, of those, 97 percent received Option B+, initiation of lifelong ART. An additional 2.5 percent received triple combination regimens for prevention (Figure 33). ART reduces mother-to-child transmission at birth to less than 5 percent. Transmission rates under 1 percent are seen among women who conceive while on ART and who continue their ART throughout pregnancy.

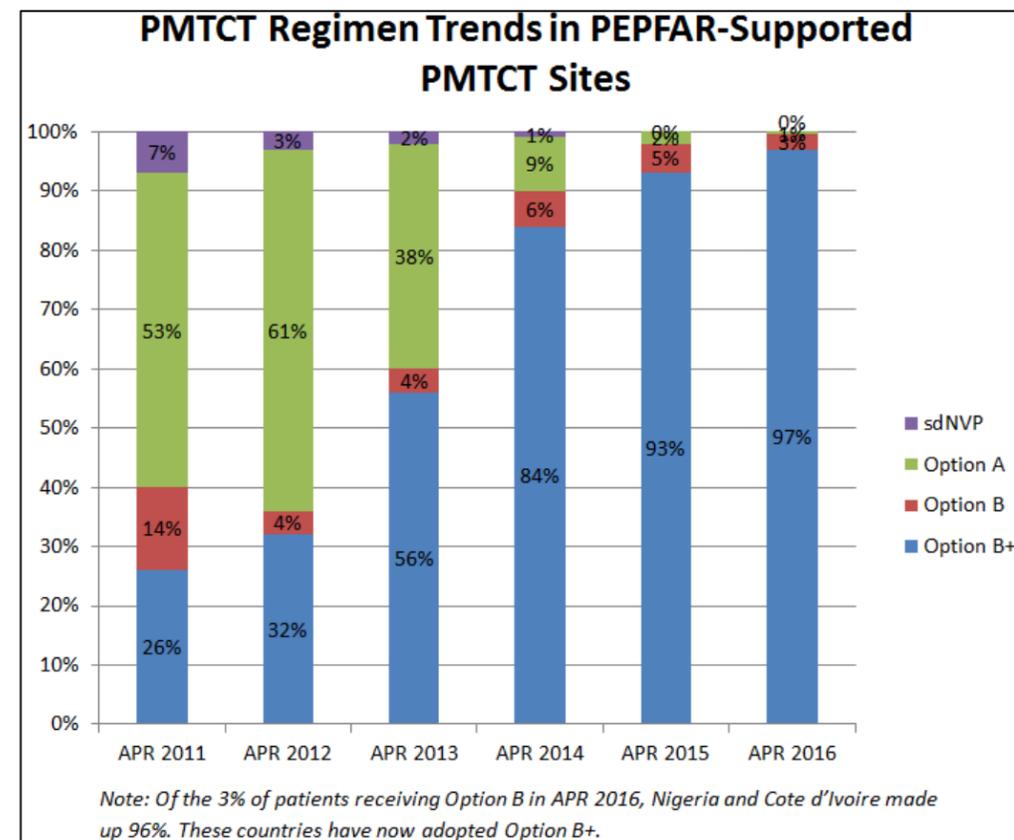
While 95 percent of babies are born HIV free, if their mothers do not remain on treatment, there is a 15 to 25 percent risk for infection to be transferred to the infant during the breastfeeding period. The breastfeeding period is therefore a crucial time for women to be retained in care and on ART. PEPFAR recognizes the need for data on retention of pregnant and breastfeeding women and now requires partner countries to report the age of women known to be alive and on treatment 12 months after initiation of lifelong therapy. During 2016, PEPFAR's retention rate for pregnant women on ART was 68 percent (Appendix W), which may be related to mobility as well as adherence. Increased efforts are being directed at retaining pregnant and breastfeeding women in care and treatment and providing testing for their infants to allow for early treatment of infected infants. Pregnant and breastfeeding women are priority populations for providing viral load testing to assure viral suppression or provide enhanced counseling for ART adherence if not suppressed. PEPFAR programs work closely with CSOs and OVC programs to provide support to breastfeeding women and their families to keep them on ART and ensure follow-up for their infants.



CREDIT: PEPFAR

■ A mother with her child in Mozambique.

Figure 33. PEPFAR PMTCT Regimens: Ensuring the Most Effective Regimens to Save Mothers and Ensure Babies Are Born HIV Free



APPENDIX L: Preventing New HIV Infections in Young Men – Voluntary Medical Male Circumcision (VMMC)

VMMC is a one-time, low-cost intervention shown in randomized control trials to reduce men's risk of HIV by approximately 60 percent, with the prevention effect maintained over time. Recent evidence from the Rakai District in Uganda demonstrates that the HIV preventive effect of VMMC continues to increase rather than decline.⁷ Male circumcision has the potential to prevent millions of new infections

and save millions of lives and billions of dollars in averted HIV treatment costs. Importantly, the procedure brings men, some for the first time, into health services.

PEPFAR programs strive to achieve 80 percent adolescent and adult male circumcision coverage in 15–49-year-olds, prioritizing the high transmission areas among the 14 countries to maximally and efficiently reduce HIV incidence in the shortest period of time possible. As of the end of 2016, PEPFAR supported more than 11.7 million VMMC procedures in 14 priority eastern and southern African countries: Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Tanzania, Uganda, Zambia, and

⁷ Gray, R. H., et al. (2012). The Effectiveness of Male Circumcision for HIV Prevention and Effects on Risk Behaviors in a Post-Trial Follow-up Study in Rakai, Uganda. *AIDS* (London, England), 26(5), 609–615. <http://doi.org/10.1097/QAD.0b013e3283504a3f>



CREDIT: PEPFAR

■ An HIV/AIDS prevention educator in Zambia.

Zimbabwe, rapidly approaching the 2017 target of 13 million. PEPFAR will support more than 3 million additional VMMCs in FY 2017. Assuming each country reaches the 90-90-90 HIV treatment targets, modeling analysis projects that the nearly 9 million male circumcisions conducted through September 2015 will avert

more than 240,000 HIV infections by 2025. PEPFAR continues to prioritize this one-time intervention by increasing central funding to this intervention in 2017.

In addition, PEPFAR is targeting men aged 15–29 for VMMC to maximize the preventive benefits, with expanded inclusion of the 10–14-year-olds as saturation is reached in the older age groups. Maximum benefit is seen when circumcision is done before sexual debut, and the most immediate benefits are obtained by focusing on the 15–29 age group. The distribution of VMMC by age bands is shown in Figure 36. VMMC procedures done over the past six years should start to impact new infections in men now 20–34 years old and also the secondary transmission to young women over the next four years. PEPFAR will be carefully tracking this impact through the PHIA in Kenya, where VMMC coverage has been high over the past several years.

Annual VMMC results are shown in Figure 34, with cumulative results shown in Figure 35.

Figure 34. PEPFAR Annual VMMC Results, FY 2009–2016

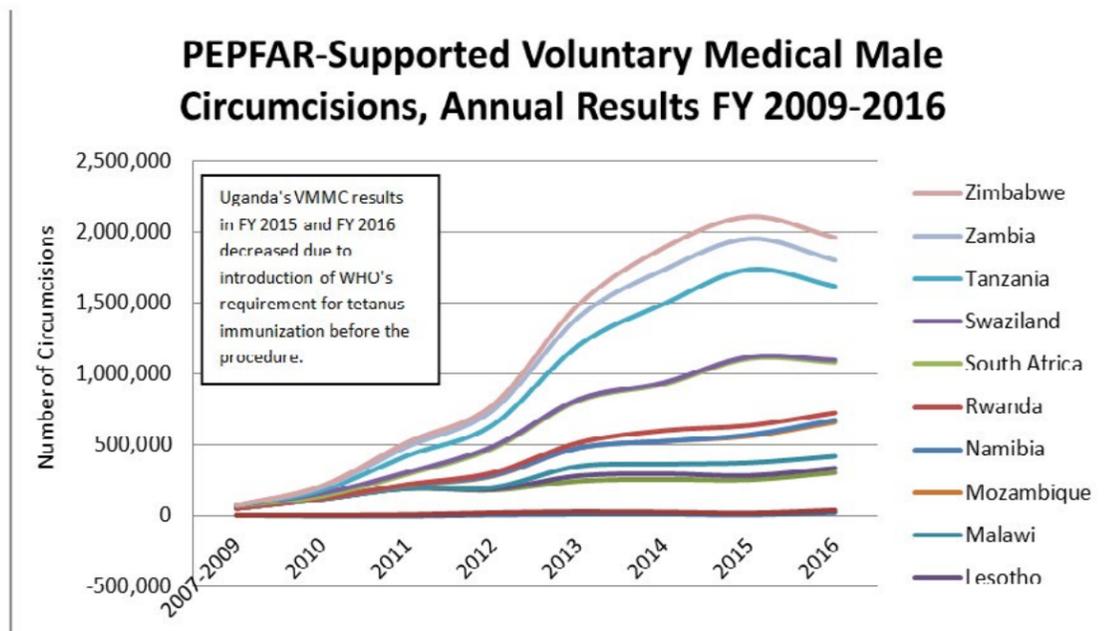


Figure 35. PEPFAR Cumulative VMMC Results, FY 2009–2016

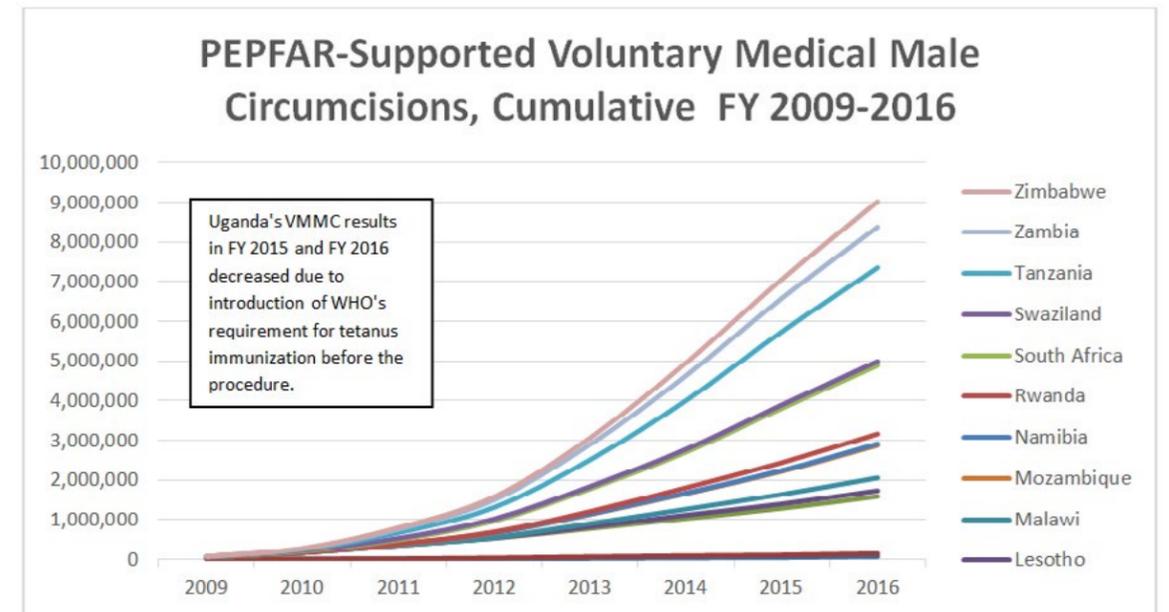
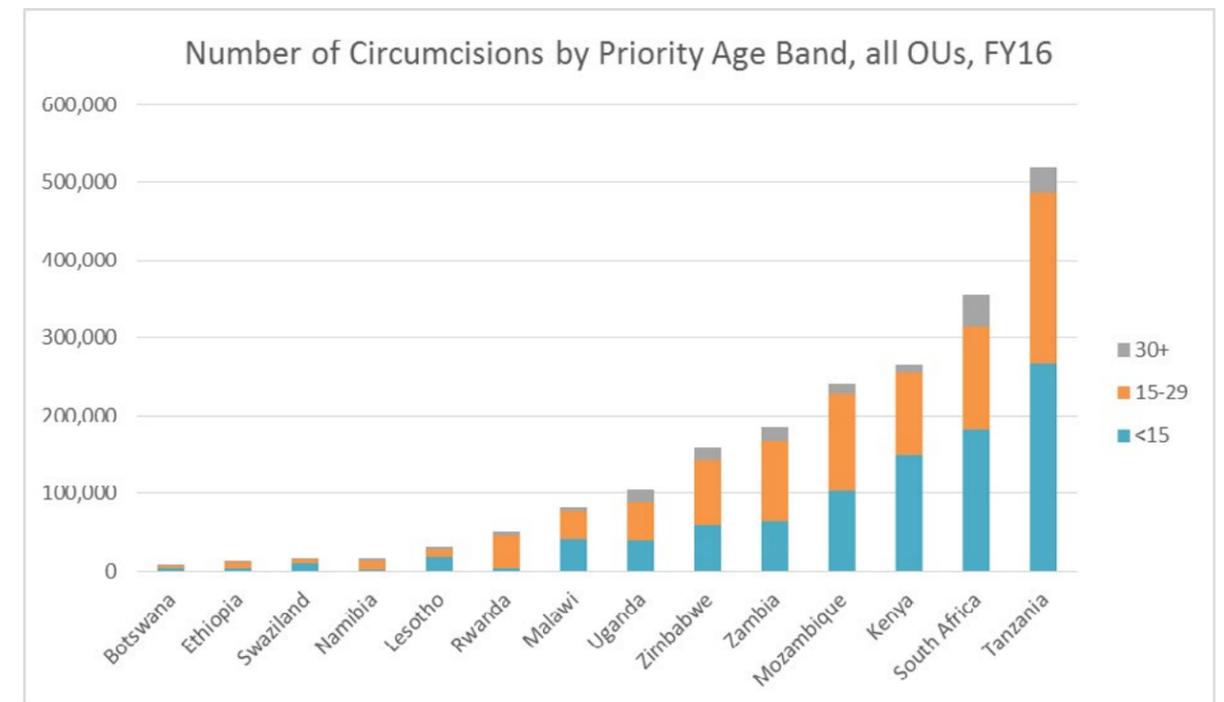


Figure 36. Number of Circumcisions by Priority Age Band and Priority Country, FY 2016



The decline in slope in 2015 was due to a reduced number of VMMC in Uganda due to the introduction of the WHO's requirement for tetanus immunization before the procedure. Based on analysis performed by the WHO, the increased risk of tetanus appears to be associated with the use of an elastic collar compression device—in which the foreskin is left in place for several days after placement—a risk not present when VMMC is performed surgically. Changes to immunization practices in line with recent guidance from the WHO should lead to a rebound in the number of circumcisions in Uganda in the coming year.

APPENDIX M: Prioritizing Prevention of New HIV Infections in Women, Adolescent Girls, and Children

HIV remains the leading cause of death and disease in women of reproductive age globally, leading to increased risk of death for orphaned children.⁸ In sub-Saharan Africa, 60 percent of those living with HIV are women, and in some African countries, prevalence among young women aged 15–24 years is at least three times higher than that among men of the same age.⁹ Due to the success of the MDGs in reducing child mortality by more than 50 percent as well as continued high fertility rates, significantly larger numbers of young women who survived childhood are now entering their most vulnerable years for HIV infection, particularly in sub-Saharan Africa. In fact, the population of young women is rapidly increasing as a part of the youth bulge illustrated below, where young people between the ages of 15 and 24 in sub-

Saharan Africa will increase to more than 200 million by the year 2020, doubling the number in 1990 (previously shown in Figure 16). These two factors heighten the urgency of effectively preventing HIV infection among AGYW, which is more critical than ever if we are to reach epidemic control.

The lives of AGYW are a complex mixture of social, behavioral, and biological risks, with intersecting factors that make them vulnerable to HIV. One in three women experience gender-based violence (GBV) at their first sexual experience, increasing the likelihood of contracting HIV.¹⁰ Women account for two-thirds of the world's 774 million illiterate adults, 54 percent of the 72 million children not in school, and 98 percent of all cross-border trafficking victims in sex exploitation cases.¹¹ All of these factors negatively impact the overall health and well-being of women while placing AGYW at heightened risk for HIV infection.

PEPFAR is dedicated to continued implementation of its *2013 Gender Strategy*,¹² which calls for



■ Actress and philanthropist Charlize Theron and Ambassador Deborah L. Birx meet with young women at the DREAMS Booth at the AIDS 2016 Conference in Durban, South Africa.

⁸ Ortblad, K. F., Lozano, R., Murry, C. J. L. (2013). The Burden of HIV: Insights from the Global Burden of Disease Study 2010. *AIDS*, 27, 2003–2017.

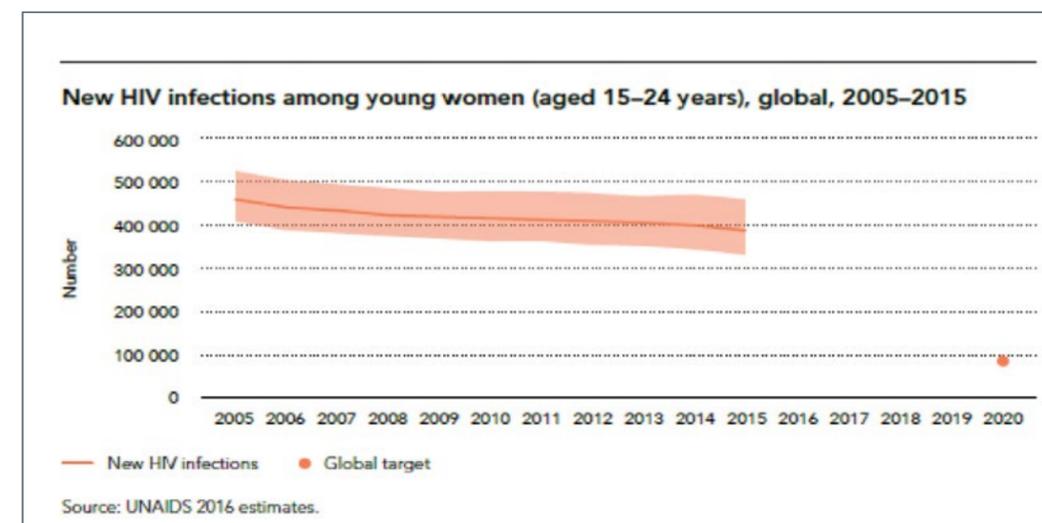
⁹ PEPFAR. (2015). *PEPFAR 2015 Annual Report to Congress*. Available at: <http://www.pepfar.gov/documents/organization/239006.pdf>

¹⁰ United States Agency for International Development. (2015). *Report on Gender Equality and Women's Empowerment*. Washington, DC. January, 2015.

¹¹ UNAIDS. (2010). *The World's Women 2010: Trends and Statistics*. Geneva.

¹² PEPFAR. (2013). *Updated Gender Strategy*. Available at: <http://www.pepfar.gov/documents/organization/219117.pdf>

Figure 37. New HIV Infections in Adolescent Girls and Young Women



providing gender-equitable HIV prevention, care, treatment, and support; implementing GBV prevention activities and post-GBV care services; implementing interventions to change harmful gender norms and promote positive gender norms; bolstering gender-related policies and laws that increase legal protection; and expanding gender-equitable access to income and productive resources, including education.

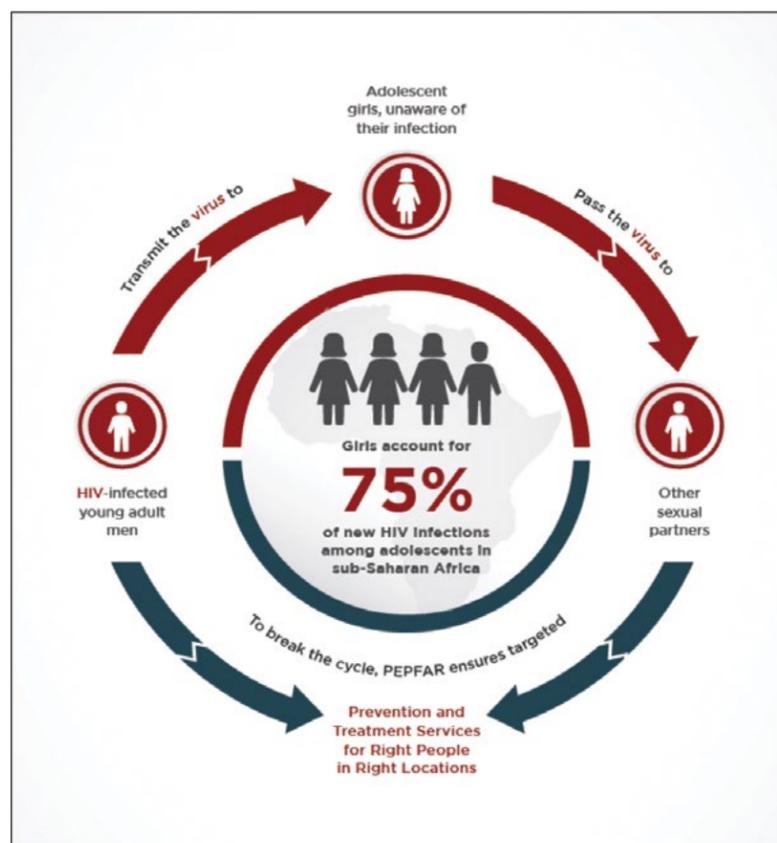
Through the collection of age by sex disaggregated data—a specific combination of age and sex disaggregation, the HIV/AIDS community recognized that AGYW, a group that is highly vulnerable to new infections in sub-Saharan Africa, were being left behind in the AIDS response (Figure 37). Every year, an astonishing 390,000 AGYW are infected with HIV—more than 7,500 every week and 1,000 every day. Girls and young women account for around three-quarters of new HIV infections among adolescents in sub-Saharan Africa.¹³ In the last 10 years, the number of new infections in AGYW has only decreased by less than 15 per-

cent. It is clear that preventing new infections in young women is essential to controlling the HIV epidemic.

In response, PEPFAR, along with the Bill & Melinda Gates Foundation, Girl Effect, Johnson & Johnson, Gilead Sciences, and ViiV Healthcare, launched the DREAMS partnership on World AIDS Day 2014, which dramatically increased our focus and investment in preventing HIV infections in 15–24-year-old girls and women. DREAMS is a comprehensive \$385 million prevention program addressing the multi-dimensional circumstances placing young women at increased risk to HIV. The goal of DREAMS is to reduce new HIV infections in AGYW in the highest HIV-burden locations of 10 sub-Saharan African countries (Kenya, Lesotho, Malawi, Mozambique, South Africa, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe) by providing a holistic approach to HIV prevention. Specifically, DREAMS aims to achieve 40 percent reduction in new HIV infections among AGYW within DREAMS districts by the end of 2017. DREAMS recognizes

¹³ UNAIDS. (2015). *Empower Young Women and Adolescent Girls: UNAIDS and The African Union | Reference | 2015: Fast-Tracking the End of the AIDS Epidemic in Africa*. Available at: http://www.unaids.org/sites/default/files/media_asset/JC2746_en.pdf

Figure 38. Cycle of HIV Transmission

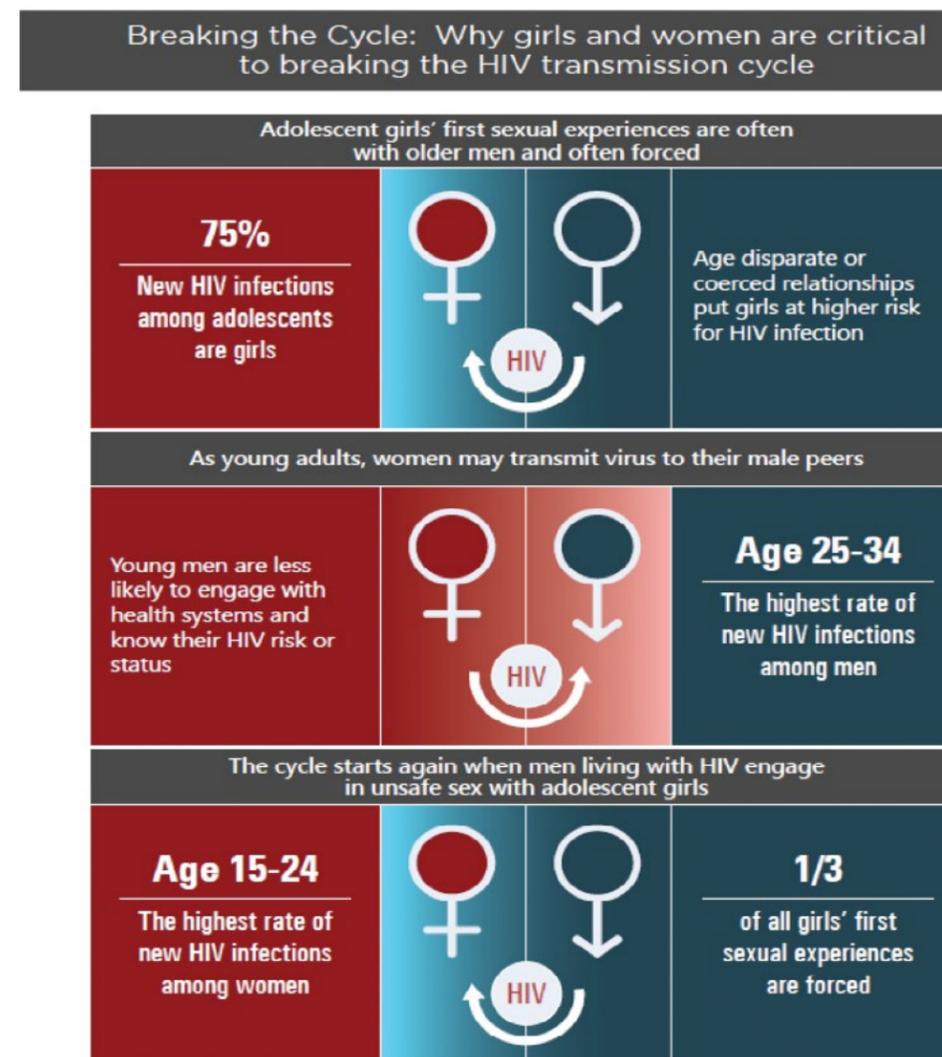


the complexities of young women’s lives and is therefore also focused on changing factors that are related to HIV risk, including increasing access to secondary education, reducing GBV, implementing risk avoidance and risk reduction activities, building strong parenting/caregiver relationships with their adolescent children, and changing community norms and structures that may make it difficult for young women to navigate the life challenges they face on a daily basis.

As of September 30, 2016, DREAMS has reached more than 1 million AGYW with critical comprehensive HIV prevention in high-burden geographic areas to avoid and reduce their risk of HIV, help them to know their HIV status, and ultimately prevent HIV.

Many AGYW lack a full range of opportunities and are too often devalued because of gender bias, leading them to be seen as unworthy of investment or protection. Social isolation, economic disadvantage, discriminatory cultural norms, initiation rites, orphanhood, GBV, and school dropout rates all contribute to their vulnerability to HIV. AGYW across DREAMS districts are receiving core packages that combine evidence-based approaches beyond the health sector to address the drivers that directly and indirectly increase HIV risk for this population. The core package includes cross-cutting services and interventions that empower girls and young women, including risk avoidance and reduction, strengthening families, and mobilizing communities for change.

Figure 39. Breaking the Cycle: Why Girls and Women Are Critical to Breaking the HIV Transmission Cycle



DREAMS is also supporting PrEP in five of the DREAMS countries for women aged 18–24 at the highest risk of HIV. This is the first time young women have had access to PrEP outside of a research setting.

DREAMS is unique because it leverages resources and expertise from private sector and philanthropic partners (Figure 40) to address the needs of AGYW. For example, Johnson & Johnson is using its corporate methodologies

and marketing expertise in understanding and reaching consumers to help identify and target health services to adolescent girls. The Bill & Melinda Gates Foundation is funding an impact evaluation and implementation research to evaluate the success of the program. Gilead is purchasing medication and funding operational expenses for the procurement, transportation, and dissemination of PrEP for young women who are uninfected but at substantial

Figure 40. PEPFAR Public-Private Partnerships



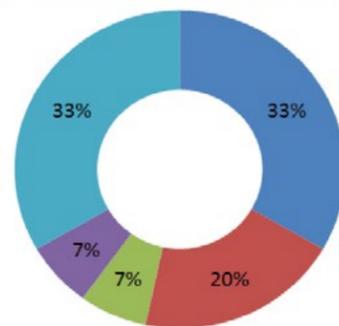
There are public-private partnerships across the five strategic areas:

- 1. Adolescent Girls & Women: Creating Gender Equity**
 - Determined Resilient Empowered AIDS-Free Mentored Safe (DREAMS)
 - DREAMS Innovation Challenge
 - Pink Ribbon Red Ribbon (PRRR)
 - MTV Shuga
 - Faster to Zero mHealth partnership with Johnson & Johnson
- 2. Children: Delivering on Our Commitment**
 - Accelerating Children’s HIV/AIDS Treatment (ACT) Initiative
 - Saving Mothers Giving Life (SMGL)
 - M-HIT partnership with Vodafone in Lesotho
- 3. Key Populations: Ensuring Human Rights & Leaving No One Behind**
 - Elton John AIDS Foundation – LGBT Fund
- 4. Data for Impact: Accelerating Toward Achieving 90-90-90 & Epidemic Control**
 - DREAMS Innovation Challenge
- 5. Sustainability & Partnerships: Strengthening Transparency & Accountability**
 - AstraZeneca PPP
 - Elizabeth Taylor AIDS Foundation Partnership for Finding Men in Malawi
 - Labs4Life with BD
 - Siemens Stronger Together lab partnership
 - Roche lab partnership



There are public-private partnerships across the five strategic areas:

- Adolescent Girls & Women: Creating Gender Equity
- Children: Delivering on Our Commitment
- Key Populations: Ensuring Human Rights & Leaving No One Behind
- Data for Impact: Accelerating Toward Achieving 90-90-90 & Epidemic Control
- Sustainability & Partnerships: Strengthening Transparency, Accountability, & Data Utilization



Private Sector Partner Spotlight:



Johnson & Johnson uses its consumer insight methodology to meet with girls and interview them about what is important to them. It applies these insights to figure out how to reach certain girls. This is the same methodology that the company uses to market their own consumer products to young girls. PEPFAR then delivers services to these girls.

risk for acquiring HIV. Girl Effect is funding the use of the Population Council’s Girl Roster™, a toolkit that helps identify and target adolescent girls in the poorest and hardest-to-reach areas. Girl Effect also develops locally rooted culture brands and supports programmatic efforts to create social norm change. ViiV Healthcare is providing capacity-building support to community-based organizations.

Over the past two years, PEPFAR has focused PPPs strategically in critical areas of challenge and opportunity to increase our programmatic impact. The private sector has leveraged its core competencies, skills, and assets to complement PEPFAR goals and priorities. This has included leveraging private sector brands; distribution networks; marketing expertise; and business-minded, market driven-approaches, including a competitive edge in innovation and technology. Private sector partnerships continue to play a critical role in the impact PEPFAR has on ending the HIV/AIDS epidemic. Private sector resources, infrastructure, skill

sets, and approaches enable PEPFAR to develop programs that are more innovative, effective, efficient, and sustainable. PPPs also allow PEPFAR to invest in innovative approaches to HIV, while sharing risks, resources, and rewards. Figure 40 demonstrates the breadth of PPPs across PEPFAR’s five strategic areas of focus.

DREAMS and the DREAMS Innovation Challenge

In addition to the evidence-based activities that make up the DREAMS core package, PEPFAR, Johnson & Johnson, and ViiV Healthcare also launched the complementary \$85 million DREAMS Innovation Challenge to test out newer solutions for preventing new infections among AGYW. In July 2016, PEPFAR announced the winners of the DREAMS Innovation Challenge at the International AIDS Conference in Durban, South Africa.

The DREAMS Innovation Challenge was designed to infuse new thinking and high-impact approaches to meet the needs of AGYW

About the Challenge

DREAMS committed \$85 million for innovative solutions that further its commitment to reduce HIV infections by 40 percent by the end of 2017

DREAMS seeks solutions that:

- Introduced innovations yet to be applied to six Challenge focus areas or implemented in 10 DREAMS countries
- Offered sustainable solutions that may be scaled or replicated to lead to long-lasting change
- Demonstrated readiness for rapid implementation within two years



Determined Resilient Empowered AIDS-Free Mentored Safe

FOCUS AREAS



Strengthening Capacity of Communities for Service Delivery
Strengthening leadership and capacity of community-based organizations, such as non-profits, indigenous, and/or grassroots organizations to support the expansion of interventions included in the DREAMS Core Package

Keeping Girls in Secondary School
Ensuring girls' transition and access to enrollment in secondary school and addressing underlying retention issues

Linking Men to Services
Pioneering new ways to engage young and adult men and link them to HIV testing and counseling, treatment, and voluntary medical male circumcision services

Supporting Pre-Exposure Prophylaxis
Supporting PrEP interventions by identifying adolescent girls and young women appropriate for PrEP initiation and adherence services

Providing a Bridge to Employment
Providing a post-secondary school bridge to employment for young women (ages 19-24) to decrease their risk for transactional sex and HIV

Applying Data to Increase Impact
Increasing the availability and use of data for DREAMS to inform policy, increase program impact, and help identify and support innovative solutions

The DREAMS Innovation Challenge invited applications in six key focus areas:

1. Strengthening capacity of communities for service delivery
2. Keeping girls in secondary school
3. Linking men to services
4. Supporting PrEP
5. Providing a bridge to employment
6. Applying data to increase impact

Determined
Resilient
Empowered
AIDS-Free
Mentored
Safe

in sub-Saharan Africa, engage new partners that have never received PEPFAR funding before, and support funding for small organizations such as community-based or youth-led organizations.

The DREAMS Innovation Challenge garnered 812 applications from 680 organizations, and a total of 55 provisional winners were selected. Over half of the awardees are small organizations and/or new PEPFAR partners, including faith-based and community-based organizations. All 10 DREAMS countries are actively coordinating the efforts of core DREAMS partners and Innovation Challenge awardees to facilitate seamless implementation of activities funded through the Challenge.

Accomplishments and the Future of DREAMS

In launching DREAMS, PEPFAR identified an area in need of vast improvement and discovered that traditional HIV prevention would not suffice to reach AGYW, a population that is facing deep societal inequalities in addition to

experiencing high HIV prevalence. Ending the HIV/AIDS epidemic means addressing all the factors that contribute to risk of contracting the disease. Since government does not have all of the solutions, private sector expertise is being leveraged to invest in an HIV-free future for AGYW.

DREAMS began as a centrally funded special initiative. The urgency of the issue spurred the program to move swiftly to start reaching vulnerable AGYW in a timely manner. Thus far, PEPFAR has reached more than 1 million AGYW with critical comprehensive HIV prevention interventions through the DREAMS Partnership. All DREAMS programs are now fully implemented in the highest HIV-burden countries and districts in sub-Saharan Africa, and we look forward to seeing further impact in 2017.

Moving forward, DREAMS activities will be integrated into PEPFAR's bilateral programs through the COPs and will continue to focus on AGYW based on groundbreaking research and scientific tools such as the PHIA. PHIA

are critical PEPFAR-funded surveys conducted by the U.S. Centers for Disease Control and Prevention (CDC) and ICAP at Columbia University, as well as local governmental and non-governmental partners. PEPFAR PHIA showed significant epidemic control in key countries for older adults; however, there is much more work to be done for adolescents and young people, especially adolescent girls. In sub-Saharan Africa, young women and adolescent girls are up to 14 times more likely to contract HIV/AIDS than young men. We must continue to focus on prevention and treatment for young people.

The OVC program is critical to the success of DREAMS, as its increased focus on adolescence recognizes the trend of the orphan population aging and incorporates both mitigation and prevention objectives to keep adolescent girls HIV free. GBV prevention, referrals for HIV testing, comprehensive HIV education, and secondary school transition and retention are all key components of the OVC program.

Additional years of education reduce the risk of HIV acquisition in adolescent girls, contribute to their future economic success, improve their overall health, and reduce unplanned pregnancies and child marriages. PEPFAR has made support for girls' transition to and completion of secondary school a higher priority through DREAMS and OVC programming, in alignment with Let Girls Learn.

Over the last year, DREAMS countries have shifted how they use data to inform their programs, including how they identify and engage the most vulnerable AGYW. The DREAMS country teams have collaborated more effectively internally and externally. Regular meetings with partner governments and civil society, including AGYW, have shaped DREAMS programs and will continue to do so in the future.

DREAMS is creating a ripple effect—the government of South Africa created She Conquers, a national campaign that will take DREAMS beyond the five PEPFAR-supported districts by linking and leveraging existing stakeholder activities across the country. Swaziland, also through their direct investment, is approaching national coverage for AGYW. HIV/AIDS implementers and funders are using the DREAMS guidance to implement methods that are evidence based and assisting countries in stretching DREAMS-like activities beyond PEPFAR DREAMS districts.

PEPFAR's Investments to Combat Gender-based Violence (GBV)

GBV and HIV are inextricably linked. Girls who experience violence are three times more likely to have an unwanted pregnancy and up to three times as likely to have HIV or other sexually transmitted infections. Sexual violence against pre-adolescents and adolescents is alarmingly high, with 28 to 39 percent of girls reporting a coerced or forced first sexual experience before 18 years of age. PEPFAR



CREDIT: Kim Bohince, MHRP

■ Mentors go door-to-door to enroll girls into the DREAMS program in Uganda.



CREDIT: Sarah Day Smith/PEPFAR

■ Recipients of OVC services live with their aunt (center) after their parents died of HIV/AIDS in Mozambique.

is working with U.S. implementing agencies, partner countries, civil society groups, FBOs and churches, the Global Fund, and other multilateral partners to comprehensively address GBV and HIV prevention for adolescent girls. PEPFAR has strengthened its ability to monitor post-GBV care services by including more refined age by sex disaggregated categories. We now have an indicator that measures the number of people receiving post-GBV care. This indicator quantifies delivery of a standardized minimum package of services that an individual must receive before results can be reported under this indicator. In 2016, across 22 PEPFAR countries, almost 150,000 women received post-GBV care, over a third of whom experienced sexual violence. Tens of thousands of women a year receive post-exposure prophylaxis through PEPFAR.

DREAMS Evaluation

The DREAMS partnership has developed a monitoring and evaluation (M&E) framework as a reference for all DREAMS countries. The framework follows a logic model that lays out

the epidemiologic and sociologic context that puts AGYW at higher risk of HIV infection, the core package of interventions proposed to address these contextual factors, the expected outputs and outcomes of these interventions, and the overall impact of the interventions when combined. The logic model is applicable to all 10 DREAMS countries and has been adapted to fit specific country plans and contexts.

Routine monitoring of DREAMS processes and outputs addresses questions pertaining to reaching the appropriate populations, successfully rolling out components of the core package of interventions, and achieving targets in DREAMS geographic areas. This sets the stage for effective oversight and timely course correction. Population Council, with funding from the Bill & Melinda Gates Foundation, will conduct additional in-depth studies to explore three primary implementation science questions: 1) how well are programs identifying and linking AGYW to programs and services; 2) how well are programs identifying and linking male partners of AGYW to decrease their risk;

and 3) what are appropriate and effective strategies for the use of PrEP among AGYW?

Outcomes

The ultimate goal of DREAMS is to achieve a significant reduction in HIV incidence among AGYW, essential for controlling the pandemic. Assessing the impact of DREAMS across all 10 countries will be done via modeling. PEPFAR is partnering with UNAIDS and Imperial College to develop incidence models that will be used to estimate the incidence of HIV among AGYW in DREAMS geographic areas. Additional studies to directly observe changes in incidence over time will be conducted in at least two DREAMS countries. Several evaluations will examine changes in intermediate outcomes targeted by DREAMS such as educational attainment, levels of violence and victimization, pregnancies among girls under age 18, sexual risk behaviors, and changes to community norms.

APPENDIX N: Pediatrics; Orphans and Vulnerable Children – Focusing the Program Toward Achieving an AIDS-free Generation and Healthy Children

Pediatrics

Over the last several years there has been a dramatic decline in new pediatric infections, but children born infected with HIV are in critical need of lifesaving HIV treatment. In 2015, 1.8 million children under age 15 were living with HIV/AIDS—nearly 90 percent of whom live in sub-Saharan Africa—and one new pediatric HIV infection occurred approximately every three minutes. Without ART, 50 percent of children living with HIV/AIDS will die before their second birthday, and 80 percent will die before their fifth birthday. In 2015, only 50 percent of children living with HIV/AIDS had access to

treatment. In West and Central African countries, only one in five children living with HIV infection received ART. This must change. Saving the lives of children with HIV is not only the right thing to do; it is the smart thing. By treating children early in their HIV infection, they can stay healthy and thrive. Healthy children who can pursue their dreams will grow economies, create jobs, and strengthen their communities for decades to come.

In August 2014, PEPFAR, through the U.S. Department of State, announced the Accelerating Children's HIV/AIDS Treatment (ACT) initiative at the U.S. African Leaders Summit. ACT is a two-year initiative to significantly increase the total number of children receiving life-saving ART in nine high-priority countries in sub-Saharan Africa. The nine ACT countries (Cameroon, Democratic Republic of the Congo, Kenya, Lesotho, Malawi, Mozambique, Tanzania, Zambia, and Zimbabwe) include countries with some of the greatest need for pediatric treatment and some of the greatest disparities in treatment coverage for children compared with adults living with HIV/AIDS. The \$200 million initiative represents a joint investment by PEPFAR and the Children's Investment Fund Foundation.

As of the end of September 2016, PEPFAR has supported 557,000 children (<20 years old) with lifesaving ART (Table 3). At the same time, across all of the countries for which PEPFAR provides support to children with HIV, nearly 1.1 million children were receiving ART, demonstrating the impact of our investment far beyond the nine original ACT countries. While pediatric ART coverage increased globally only from 43 percent in 2014 to 49 percent in 2015, coverage increased by 10 percent or more from 2014–2015 in the ACT countries (Kenya, Lesotho, Malawi, Tanzania, Zambia, and Zimbabwe) with Zimbabwe reaching 80 percent pediatric ART coverage.

Table 3. Accelerating Children's HIV/AIDS Treatment (ACT) Initiative

	Children receiving ART by September 2016
Countries Participating in Accelerating Children on HIV/AIDS Treatment (ACT) Initiative	0-19 year olds
Cameroon	8,386
DRC	5,034
Kenya	115,326
Lesotho	9,548
Malawi	77,193
Mozambique	75,237
Tanzania	66,488
Zambia	118,597
Zimbabwe	80,836
All ACT OUs	556,645

ACT shows the power of PPPs and focus that can lead to tremendous impact in just two years. Countries will continue to receive technical support to build on pediatric treatment scale-up in FY 2018. While we increased children's treatment across all ACT countries, we also doubled the number of children on treatment across all PEPFAR-supported countries in the last 24 months.

Adoption of the WHO guidelines to treat all HIV-infected children and adolescents has been a critical step in linking HIV-positive children to the care they need and will be a major factor in furthering successes in pediatric treatment attained under ACT. PEPFAR has expanded the OVC program to ensure that all vulnerable children have access to HTS, care, and treatment.

Orphans and Vulnerable Children: Strengthening Children's Resilience and Supporting an AIDS-free Generation

OVC programs remain central to achieving an AIDS-free generation. Worldwide, more than 13.3 million children are living without one or both parents due to AIDS, down from 14.3 million at the height of the epidemic.¹⁴

As care and treatment programs have expanded, parents are successfully living with HIV/AIDS, and PEPFAR continues to refine the services for OVC in high HIV prevalence communities. The programs respond to socioeconomic issues that negatively impact the lives of children.

Through strategic efforts to strengthen the capacity of OVC and their families, communities, and systems of care and support, OVC programs

¹⁴ Joint United Nations Programme on HIV and AIDS. (2015). *How AIDS Changed Everything – MDG 6: 15 Years, 15 Lessons of Hope from the AIDS Response*. Available at: http://www.unaids.org/sites/default/files/media_asset/MDG6Report_en.pdf

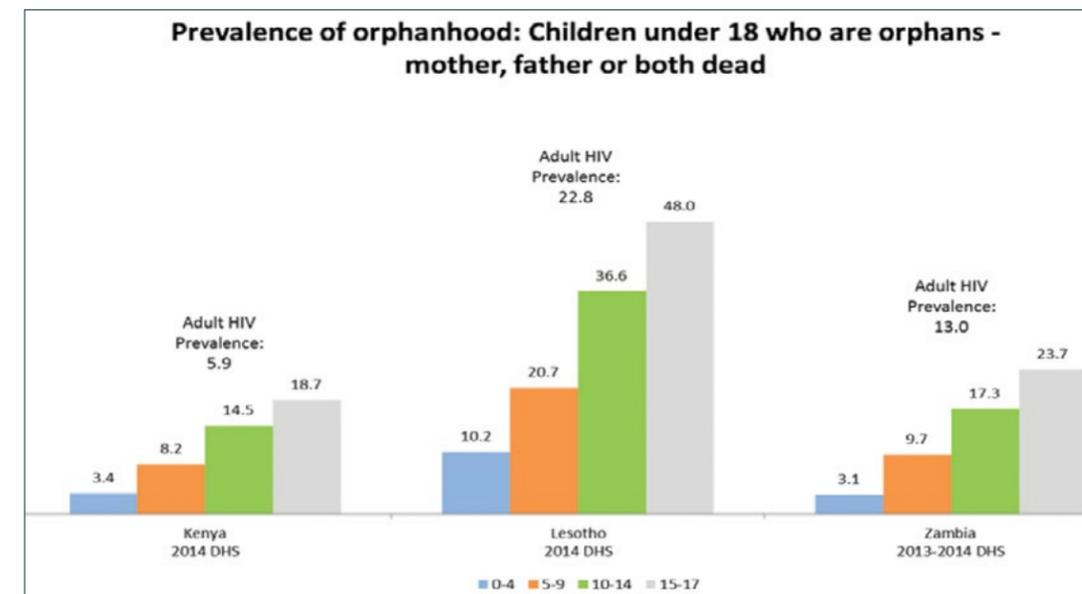
create an enabling environment for children and their parents and caregivers to access other services, including core HIV treatment and prevention services. PEPFAR continues to maximize the impact of the OVC platform by applying an approach that strengthens resilience. Such an approach focuses investments on scaling up evidence-based interventions, linking community and clinical services, enhancing family-centered care, and strengthening the measurement of quality improvement, cost data, and monitoring program outcomes.

PEPFAR's support to these programs must continue to meet the evolving needs of OVC. Expansion in ART coverage has led to a decline in the number of children orphaned, while the average age of orphans has increased. From 2009–2014, UNAIDS estimated that the number of orphans declined by 7 percent.¹⁵ The age

shift is equally dramatic. While OVC are often thought of as younger children, trends across countries by age group show that an orphan is more likely to be 10–17 years old than 0–9 years old (Figure 41). Meeting the needs of adolescent orphans means that programs have had to shift to accommodate the risks specific to the older age group.

While orphaned children at all ages are vulnerable, those at either end of the age spectrum face specific heightened risks. Adolescent female orphans, for example, have been found to have an earlier sexual debut than their non-orphaned (or male-orphaned) counterparts.¹⁶ Additionally, adolescent females orphaned or living with a caregiver who is ill due to HIV have higher rates of transactional or other unsafe sex and higher exposure to physical and emotional abuse.¹⁷ Given that adolescent girls

Figure 41. Orphan Prevalence by Age Group in Kenya, Lesotho, and Zambia



¹⁵ Joint United Nations Programme on HIV and AIDS. (2015). *How AIDS Changed Everything – MDG 6: 15 years, 15 Lessons of Hope from the AIDS Response*.

¹⁶ Robertson, et al. (2010). Sexual Risk among Orphaned Adolescents: Is Country-Level HIV Prevalence an Important Factor? *AIDS Care*, 22(8), 927–938.

¹⁷ Joint United Nations Programme on HIV and AIDS. (2015). *How AIDS Changed Everything – MDG 6: 15 years, 15 lessons of Hope from the AIDS Response*.



■ Ambassador Matthew Harrington sits alongside Rev. Father Mahlaku, the founder of St. Cecilia orphanage.

in sub-Saharan Africa are 75 percent more likely than boys to become HIV infected, the OVC platform is strategically well placed to address those who are affected by or vulnerable to HIV via focused efforts like DREAMS that provide an array of protective interventions (e.g., schooling, economic support, reproductive health services, GBV services).

HIV-positive adolescents also benefit from the added socioeconomic support available through the OVC platform. Adolescents on ART in South Africa, for example, who had access to multicomponent interventions including parental monitoring, support groups, and social transfers such as cash and food provisions, had greater adherence than those who did not.¹⁸ For the OVC platform, the focus for adolescents is two-fold: adhering to treatment and living a productive, healthy, AIDS-free future.

In addition to focusing on adolescent girls, PEPFAR's OVC platform has a strategic advantage in regard to the youngest children affected by HIV and their mothers. First, children who are maternally orphaned at a very young age

are at higher risk of mortality.¹⁹ Second, while prevention of parent-to-child transmission rates have declined significantly in many places, countries still struggle to provide follow-up care to HIV-positive mothers and their HIV-exposed and/or infected infants. The OVC platform's wide network of faith- and community-based staff and volunteers are well positioned to support treatment adherence and proper nutrition among children with HIV infection and to reach young women requiring socioeconomic assistance. For first-time mothers, especially adolescents, case management that links young mothers and their children to assistance can be critical to ensuring both parent and child remain healthy and AIDS free. Additionally, given potential risks of developmental delays in children living with and/or exposed in utero to HIV, OVC programs can teach and model activities that promote cognitive stimulation and development.²⁰

In FY 2016, PEPFAR supported several high-level and technical consultations related to OVC. In July 2016, PEPFAR launched a special journal supplement comprising recent peer-reviewed research on children affected by AIDS at the International AIDS Conference in Durban. PEPFAR also provided a series of technical learning events for OVC practitioners globally through OVCsupport.org, including sessions focused on best practices in case management and specifically in managing cases involving children and adolescents at risk of abuse. PEPFAR continued to support countries in establishing biennial evaluation of outcome indicators measuring child and household well-being.

Although the vast majority of OVC impacted by the AIDS pandemic live with immediate or extended family members, PEPFAR also supported evidence-based practice for children

living outside of family care. PEPFAR piloted the Social Service Systems Strengthening Monitoring and Evaluation Framework to support the everyday functioning of ministries mandated to prevent child separation and to promote permanency. In addition to providing on-site technical assistance to social welfare ministries, PEPFAR supported cross-country experience sharing and evidence-based practice through the Better Care Network, a global learning hub for those preventing and addressing children's separation from family.

PEPFAR will work with OVC implementing partners to ensure that most vulnerable, at-risk children receive appropriate HIV testing and access to lifesaving services. PEPFAR regularly evaluates OVC programs to ensure they adapt to the changing demographics of the epidemic and the shifting evidence for core interventions. PEPFAR sets aside 10 percent of its program funding to address the diverse, complex, and often critical needs of OVC. In FY 2016 alone, PEPFAR is supporting critical care and support for nearly 6.2 million OVC and their caregivers, including nearly 4.7 million children and adolescents under 18 years of age, in order to mitigate the physical, emotional, and economic impact of HIV/AIDS on children (Appendix W). Furthermore, there are 2 million children who did not become orphans thanks

to PEPFAR-supported treatment of their parents and caregivers living with HIV.

APPENDIX O: Driving a Sustainability Agenda with Country Partners

PEPFAR continues to execute the PEPFAR 3.0 strategy, which includes the challenge of hardwiring sustainability into its business processes and day-to-day programmatic activities. While sustainability is a long-term endeavor, ever-increasing HIV infections means that achieving and maintaining epidemic control requires success in the near- and medium-term and vision for a long-term end state or outcome.

In the near term, success is principally about monitoring performance against plan. To continue to meet increasing targets, PEPFAR must continue to support an enabling environment that has the following elements:

- » Promotes governance and leadership.
- » Engages community and civil society.
- » Builds effective health delivery systems.
- » Focuses data systems on essential performance information.

The science is clear: Initiating treatment immediately after diagnosis regardless of health status and linking PLHIV to treatment that results in viral suppression are what lead to the best health outcomes. Better health outcomes mean fewer medical issues for the wider health system, higher labor productivity, and fewer societal costs. Fundamentally, the near-term activities will focus on enacting the right policies of Test and START, task-shifting, multimonth prescriptions, and differentiated models of care, which are more sensitive to the needs of the client and are more efficient and stable over time. PEPFAR focuses prevention activities on the populations that are under-



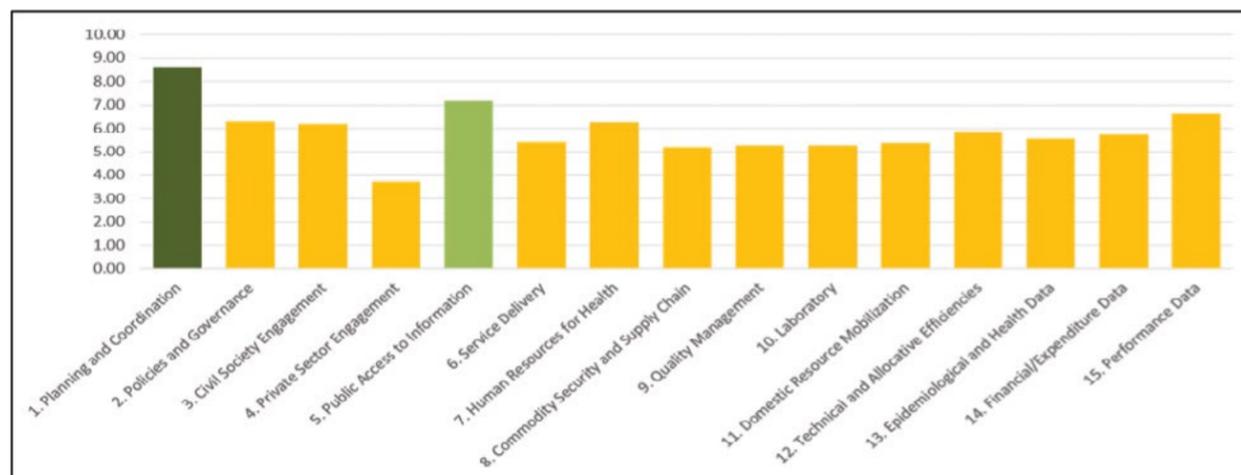
■ Bill Gates and Ambassador Deborah L. Birx at the AIDS 2016 Conference in Durban, South Africa.

¹⁸ Cluver, et al. (2016). Achieving Equity in HIV-treatment Outcomes: Can Social Protection Improve Adolescent ART-adherence in South Africa? *AIDS Care*, 28(sup2), 73-82.

¹⁹ Houle, et al. (2015). The Impacts of Maternal Mortality and Cause of Death on Children's Risk of Dying in Rural South Africa: Evidence from a Population Based Surveillance Study (1992-2013). *Reproductive Health*, 12(sup1), S7.

²⁰ Wedi, et al. (2016). Perinatal Outcomes Associated with Maternal HIV Infection: A Systematic Review and Meta-analysis. *The Lancet*, 1, e33-e48.

Figure 42. Average SID Score Across All Responding Countries, by SID Element



served by treatment while attacking the root causes of undertreatment, such as discrimination against key populations. In 2016, the PEPFAR program completed an improved and updated version of the Sustainability Index and Dashboard (SID), which was implemented as part of the COP in all bilateral program countries and in most ROP programs. The SID is a measurement tool that provides a framework and periodic snapshot of the elements central to a sustained and controlled epidemic.

The implementation of the SID allows PEPFAR to objectively track progress toward program sustainability goals. The Index targets 15 elements (Figure 42) organized under the four following overarching domains:

- » Governance, leadership, and accountability.
- » National health system and service delivery.
- » Strategic investments, efficiency, and sustainable financing.
- » Strategic information.

The specific indicators and milestones included in the SID measure key areas including partner countries mobilizing domestic financial resources for their HIV/AIDS response and allocating those resources strategically and efficiently; collecting, analyzing, and using the right types of data for decision-making; and ensuring a secure, reliable, and adequate supply of and distribution system for drugs and other commodities needed to achieve sustainable epidemic control.

As part of the new procedures for implementing the SID, the indices were completed in conjunction with or validated by a range of international and partner country stakeholders, including the host country government and CSOs. Many of the sessions were facilitated by UNAIDS and included a harmonization with country transition efforts by the Global Fund where appropriate. Often, the indices were created in open dialogue with all of the actors in the room to discuss the real state of development and sustainability.

In the medium term, success is related to consolidating gains in the enabling environment and more clearly focusing on efficient use of existing funds. To that end, PEPFAR is working to do the following:

- » Scale up engagement with a wider array of actors, including finance ministries, heads of state, and parliaments, as well as development of clear business cases.
- » Generate real-time costing data to take advantage of efficiencies and innovations like differentiated service models and to pay for what services should cost.
- » Develop new data systems and data laboratories with an eye toward empowering civil society.
- » Address key systems barriers through our focus on above-site-level barriers to treatment and services.

PEPFAR launched a new effort in 2016 to categorize and analyze the health systems or above-facility-level programs funded in the

country plan through a tool called the Systems and Budget Optimization Review (SBOR). Together with the SID, the SBOR process led to the creation of a new analysis of the key programmatic and policy gaps that countries face to achieve sustained epidemic control and the 90-90-90 goals, as well as the systems barriers preventing them from closing those gaps. As a result, country teams developed three-year outcomes to overcome the barriers and mapped systems activities to those outcomes as a requirement for completion of operating plans. In 2017, PEPFAR country teams will be developing and reporting against benchmarks to chart progress around the three-year outcomes and will continue to develop health systems and investments aligned with the goals.

In 2016, the Department of the Treasury joined PEPFAR as an implementing agency. Treasury will use its bilateral economic relationships to engage partner governments' Ministries of Finance (MOFs) to become strong allies in the efficiency agenda that is designed to allow current funding to go further. Treasury will



■ World AIDS Day in the Philippines.

CREDIT: USAID

also deploy its technical advisors to help build budget and financial systems that will enable countries to finance an increasing share of the HIV response. For example, in Zambia, following an initial engagement with Treasury officials, the MOF constituted an HIV expenditure steering committee that meets quarterly to review spending and progress. Treasury advisors will work with the MOF to support the steering committee and to develop key financial management systems to help achieve the ultimate goal of long-term sustainability of the HIV response.

PEPFAR is also investing in new health financing schemes and other innovative funding mechanisms. With funding from PEPFAR, the United States Agency for International Development's (USAID) Sustainable Finance Initiative (SFI) for HIV and AIDS works to advance the delivery of an AIDS-free generation with shared financial responsibility with host country governments. The initiative's goal is to support ongoing country-led efforts to further mobilize domestic public and private sector resources to address the needs of PLHIV.

In Vietnam, to support long-term sustainability, the SFI is investing in strengthening the Social Health Insurance (SHI) system to ensure coverage of HIV/AIDS services. The SFI works to strengthen provider payment mechanisms to reimburse HIV/AIDS services and supports the government of Vietnam with conducting finance and economic analyses for national health accounts and actuarial insurance cost projections and assessing HIV program and commodity costs. Use of data and analyses have supported advocacy for increasing domestic resources allocated to HIV/AIDS drugs and service delivery and helped advance needed regulatory and policy changes. Technical assistance also focuses on strengthening SHI system efficiencies, drug procurement practices, and capacities at the national and provincial levels for improved resource tracking

and allocation. The SFI is working directly to increase the number of PEPFAR-supported facilities contracted under the SHI scheme to deliver HIV services and to increase the number of PLHIV enrolled in the SHI scheme. The SHI scheme coverage of HIV/AIDS services is currently being rolled out in multiple provinces in preparation for and in response to donor transition out of direct delivery of HIV/AIDS services. Both national- and provincial-level resources and health program investments will contribute to fully funding the HIV/AIDS response in the long term.

PEPFAR is also investing in data systems needed to achieve and maintain epidemic control. For a sustainable response, we must ensure not only that MOH have access to these systems but that wider data architecture is available for all stakeholders to play their part. PEPFAR is leading by example in forging innovative partnerships to support countries in strengthening their data systems, leveraging these systems, and building capacity to accelerate, focus, and sustain the response to HIV/AIDS.

PEPFAR-MCC Data Collaboratives for Local Impact

PEPFAR and the Millennium Challenge Corporation (MCC) are partnering to invest \$21.8 million in the Data Collaboratives for Local Impact (DCLI) program in sub-Saharan Africa. DCLI is working to produce concrete cases to demonstrate how data-driven decision-making can maximize impact; improve budget alignment; and increase transparency, mutual accountability, and the use of data to drive action at the community and national level. There are three projects currently underway in Tanzania:

» Launched in March 2016, the **dLab** is a hub bringing together data scientists, innovators, and PPPs to build capacity to use data for decision-making and to drive action locally and nationally. This year, the dLab launched its online and on-site trainings for

government, civil society, and private sector stakeholders to build capacity in data literacy, analytics, and visualization to help drive the effective use of data to maximize impact toward achieving an AIDS-free generation. The dLab has already scheduled additional training sessions in order to meet the high demand.

» In October 2016, the **Data for Local Impact Innovation Challenge** launched the first of five competitions to engage and connect national and local entrepreneurs to leverage and advance innovations and creative solutions to fill data ecosystem gaps. Through the first competition, DCLI has identified innovative solutions to improve access to quality health care, empower citizens to engage in their health care through information-sharing, and improve community feedback on health services in DREAMS districts in Tanzania.

» In December 2016, DCLI launched the **Data-Driven Communities** project to extend DCLI activities to the subnational level by enabling local governments and constituencies to make better use of data to increase impact, inform budget alignment, determine local priorities, and drive local action.

PEPFAR joined public, private, and civil society partners as a founding anchor partner of the Global Partnership for Sustainable Development Data (Global Partnership) to fill critical data gaps and invest in capacity building so that data can be optimally analyzed and used. PEPFAR, on behalf of the U.S. government, has provided a total of \$3.3 million to the Secre-



■ Young girls at a health awareness event in Ghana.

tariat for 2016–2018. The Global Partnership has made significant progress in the past year, including catalyzing country-led multistakeholder Data Roadmaps for Sustainable Development in Colombia, Sierra Leone, Kenya, Tanzania, Senegal, and the Philippines, and launching the digital data marketplace to connect demand from countries with supply from its network of stakeholders.

In the long term, success is building the capacity of a country to manage and finance its own HIV response. Programs need policies, systems, and financing mechanisms to function well within a specific country context. To ensure long-term sustainability of the HIV response, PEPFAR is charting country progress against the SID; improving the technical abilities of partner countries in health and lab systems, disease surveillance, and financial management; focusing on the functionality as opposed to the structure of systems; and supporting the drive for comprehensive health coverage and financing.

APPENDIX P: Strengthening Program Cost Effectiveness

Informed by economic and financial data, PEPFAR designs and redesigns sustainable models of service delivery that adapt to changing circumstances. To achieve epidemic control and an AIDS-free generation, PEPFAR is implementing programmatic changes to achieve efficiency gains that deliver greater results for its investments.

Accurate tracking of expenditures enables policy makers, program managers, program planners, and donors at all levels to assess gaps in coverage; avoid duplication and redundancy; manage complex programs; direct resources to high-impact interventions, regions, service providers, and populations; determine resources required to sustain programs in the future; and advocate for additional support, both from external and internal sources. These data are also essential inputs for developing national strategic plans and partnership



CREDIT: Gary Hampton, WHO

■ Key populations in Indonesia.

frameworks for HIV and health. PEPFAR, as the largest source of support in many countries and as the one-third contributor to the Global Fund, has committed to sharing expenditure data with our partner country counterparts

to strengthen sustainability. PEPFAR is also working to harmonize our efforts with those of other major donors and host-country governments to produce routine and comparable resource tracking that empowers more informed planning, sustained investment in epidemic control, and country-driven decision-making.

Coordination with Multilaterals

The U.S. government supports both bilateral and multilateral approaches toward achieving an AIDS-free generation. One of the U.S. government's most important multilateral partners is the Global Fund. The U.S. government remains the largest donor to the Global Fund, having invested more than \$13 billion in the Fund since its creation in 2002, accounting for one-third of its total resources. The U.S. government's investments in the Global Fund help to maximize the impact and reach of our bilateral programs and leverage the investments of other donors and the private sector. The Global Fund's 2017-22 strategy aligns with U.S. bilateral investments. In addition, the U.S. government works closely with UNAIDS and the U.N. joint program co-sponsor agencies, including the WHO, UNICEF, UNFPA, UN Women, WFP, ILO, UNODC, and the World Bank, particularly on setting national guidelines, advocating for adoption of evidence-based interventions, and providing political will and strategic information.

Fifth Replenishment of the Global Fund

In September 2016, donor nations and private sector entities joined together to reaffirm and enhance their commitment to the Global Fund during the Fund's Fifth Replenishment meeting in Montreal, Canada. The United States pledged up to \$4.3 billion through 2019 to the Global Fund, subject to congressional appropriations. To galvanize global action, the U.S. will match one dollar for every two dollars in pledges made by other donors through September 2017, dependent on actual contributions. The U.S. is

Table 4. Publicly Announced Pledges to the Global Fund

Contributing Country or Organization	Pledge	Contributing Country or Organization	Pledge
Pledges Made in USD		Pledges Made in Local Currency	
USA	\$ 4,300,000,000	UK (Pound)	1,100,000,000
Japan	\$ 800,000,000	France (Euro)	1,080,000,000
Gates	\$ 600,000,000	Germany (Euro)	800,000,000
Other Private Sector	\$ 150,000,000	Canada (CAD)	804,000,000
RED	\$ 100,000,000	EU (Euro)	475,000,000
India	\$ 20,000,000	Sweden (Krona)	2,500,000,000
China	\$ 18,000,000	Norway (Krone)	2,000,000,000
Qatar	\$ 10,000,000	Netherlands (Euro)	156,000,000
Kenya	\$ 5,000,000	Australia (AUD)	220,000,000
South Africa	\$ 5,000,000	Italy (Euro)	140,000,000
Kuwait	\$ 5,000,000	Belgium (Euro)	57,000,000
Benin	\$ 2,000,000	Switzerland (Franc)	60,000,000
Burkina Faso	\$ 2,000,000	Denmark (Krone)	300,000,000
Namibia	\$ 1,500,000	Ireland (Euro)	30,000,000
CDI	\$ 1,000,000		
Senegal	\$ 1,000,000		
Togo	\$ 1,000,000		
TOTAL	\$ 6,021,500,000	TOTAL (\$ spot rate)	\$ 5,907,112,728
<i>As of 19 September 2016, Total Pledge = \$11,928,612,728</i>			

statutorily limited by P.L. 113-56, the PEPFAR Stewardship and Oversight Act, to contributing no more than 33 percent of all resources to the Fund. The Replenishment meeting yielded sustained and increased pledges in local currency from European donors, which was a positive outcome for the Fund given the competing priorities facing these donors acutely affected by Brexit and the ongoing migrant and refugee crisis. Among the largest donors were France, the United Kingdom, Germany, Japan, and the Gates Foundation, pledging EUR 1.08 billion; GBP 1.1 billion, EUR 800 million, USD 800 million, and USD 600 million, respectively. The Fund also received modest pledges from some implementing countries, as was the case in the Fourth Replenishment. The Global Fund embraces these contributions as a way to reinforce the principle that combating the three epidemics (HIV/AIDS, TB, and malaria) is a two-way partnership between donor and implementing countries. Overall, the Fifth Re-

plenishment yielded just below \$12 billion USD (Table 4), adjusting for foreign-exchange spot rates, donor withholdings for technical assistance, and other donor-specified conditions in new pledges to fight the three epidemics.

The U.S. government welcomed the Global Fund Replenishment as an affirmation of the continued importance of the Global Fund in fighting the three diseases and the shared responsibility of all nations in ending the three epidemics by 2030. The U.S. continues to strongly urge donors to pledge additional resources by September 30, 2017.

Shared Approach & Comparative Advantage

The U.S. government and the Global Fund are committed to controlling HIV, TB, and malaria through a shared approach. Practically speaking, this means joint collaborative alignment at the country level to do the right things, in the right places, right now, and in the right

way. It requires a special focus on key and vulnerable populations. Both the U.S. government and the Global Fund are stepping up to jointly lead efforts targeting geographic areas and populations with the greatest burden, including AGYW. Together, we are also leveraging the comparative advantage of each organization. For example, we are ensuring an integrated HIV response through PEPFAR's direct support for the provision of technical care and treatment services and the Global Fund's bulk pricing and purchasing power to procure key commodities, including test kits and lifesaving medicines.

Implementation Through Partnership

At the national and site level, the U.S. government actively supports Global Fund Principal Recipients in grant implementation. In 2016, PEPFAR aligned the U.S. government's Global Fund technical assistance portfolio with the Global Fund's Implementation Through Partnership (ITP) project. The ITP project was a collaboration between the Global Fund, partners, and countries to rapidly increase the efficiency and effectiveness of grant implementation in 20 high-burden countries. In a very short timeframe, the ITP project worked with partners and countries to analyze programmatic and financial data and identify specific actions that would dramatically improve grant implementation. Under the leadership of Ambassador Birx, PEPFAR was a strong advocate of the ITP project and supported several multilateral partners, including UNAIDS, the Stop TB Partnership, and the WHO, to address the identified actions. Ultimately, the ITP project resulted in enhanced coordination of targeted technical assistance for countries and effectively improved program and financial targets in key countries. Ambassador Birx represented the U.S. government on the Partner Action Group—the Steering Committee for ITP—joining quarterly discussions to analyze progress to date.

Engagement

At the country level, PEPFAR engages in multisiteholder partnerships to ensure Global Fund grants are technically sound and complementary to U.S. government bilateral programs. PEPFAR also places key technical staff charged with coordinating, communicating, and collaborating with the Global Fund in many of its high-burden, high-investment countries. These staff, working with PEPFAR field teams, communicate frequently with the Fund to discuss strategy and program alignment and to resolve issues. Multiple times per year PEPFAR hosts headquarters-to-headquarters meetings with the Fund to update and analyze progress in core joint-investment countries. In addition, the Global Fund's Geneva-based Fund Portfolio Managers meet with PEPFAR in-country teams during the former's routine country visits. PEPFAR has also invited the Global Fund and other external stakeholders to attend and provide input at in-person PEPFAR COP/ROP reviews, and PEPFAR has personnel seconded to the Global Fund headquarters to enhance programmatic communication and collaboration. This has been particularly helpful during times of high need for joint U.S. government-Global Fund goals such as making operational the "new funding model" for the Global Fund. These are a few examples of the ongoing collaboration and coordination between PEPFAR and the Global Fund to improve program implementation and health outcomes.

Resource Tracking

Partner country governments are working to better understand how donor resources from PEPFAR, the Global Fund, and other sources are matched with local resources and translate to the delivery of HIV services and support. Standard international tracking tools that are available include the National AIDS Spending Assessment (NASA), developed by UNAIDS, and the National Health Accounts (NHA)/System of Health Accounts (SHA), de-

veloped by the WHO. PEPFAR also shared its data with host governments and multilateral partners to improve coordination of resource planning and improve reporting. The expenditure data are collected once by partners and are used for internal performance monitoring, but also provide high quality and consistent data to the NASAs and the NHAs. PEPFAR expenditure data benefits not only the PEPFAR program to improve efficiency, but also the global community in its resource planning.

PEPFAR also is working with the Global Fund, World Bank, UNAIDS, WHO, and Bill & Melinda Gates Foundation.

Expenditure Analysis

The PEPFAR Expenditure Analysis (EA) Initiative was institutionalized in 2012. EA is an important tool for better understanding where resources are going and what outputs are produced by these investments. PEPFAR expanded EA to include all countries in 2014; EA now also includes expenditures related to central initiatives that accelerate the delivery of priority HIV/AIDS interventions, such as VMMC and the Key Populations Investment Fund.

One major function of EA is to generate the unit expenditures for core interventions. Total expenditures reported for a particular program area are divided by the reported number of beneficiaries of that program to establish the unit expenditure. Unit expenditure does not equal unit cost; rather, it represents the average expenditure per beneficiary by PEPFAR implementing partners to deliver services and/or technical assistance in support of achieving the reported beneficiaries. In practice, the unit

cost per beneficiary may be higher if there are multiple sources of support (e.g., PEPFAR, the Global Fund, and host country government) contributing to that one result, as is typical of many national HIV programs. Though not the full unit cost, these data provide an evidence base for specifically identifying areas for increased technical and productive efficiencies. Total and unit expenditures are also used for program management, by identifying outliers that are either positive (potential efficient or innovative program to replicate) or negative (potential inefficient program needing help to improve) for further analysis and actions. The analysis of site-level results, the cost of achieving those results, and the quality of the results is essential to identifying the sites with the most efficient programs. The best practices of the most efficient programs can then be scaled up and replicated to improve all sites.

Table 5 outlines the total expenditures reported by countries in core intervention areas, and Table 6 presents the unit expenditure observed for achieving results in core intervention areas.



CREDIT: U.S. Embassy Namibia

Community members light candles in the shape of an AIDS ribbon on World AIDS Day in Namibia.

Table 5. Reported PEPFAR Expenditures by Program Area for Core Programs, 2015 Fiscal Year (October 2014 to September 2015), Millions US

Country	Facility-based care, treatment, and support	Community-based care, treatment, and support	Prevention of mother to child transmission of HIV	Voluntary male medical circumcision	HIV testing	Laboratory	Orphans and vulnerable children	Prevention for priority populations	Persons who inject drugs	Female sex workers	Men who have sex with men and transgender	TOTAL Core Programs *
Angola	\$1.62	\$0.52	\$1.47	\$2.88	\$0.79	\$1.49	\$0.56	\$0.25	\$0.56	\$0.25	\$9.58	
Antigua and Barbuda	\$0.05	\$0.03	\$0.00	\$0.00	\$0.06	\$0.01	\$0.01	\$0.04	\$0.21	\$0.04	\$0.21	
Bahamas	\$0.01	\$0.01	\$0.03	\$0.19	\$0.14	\$0.14	\$0.19	\$0.44	\$1.12	\$0.44	\$1.12	
Barbados	\$0.20	\$0.01	\$0.03	\$0.06	\$0.15	\$0.10	\$0.05	\$0.09	\$0.72	\$0.09	\$0.72	
Belize	\$0.25	\$0.16	\$0.16	\$0.15	\$0.01	\$0.01	\$0.06	\$0.08	\$0.73	\$0.08	\$0.73	
Botswana	\$10.87	\$1.33	\$1.66	\$3.70	\$4.35	\$3.22	\$1.11	\$0.36	\$38.48	\$1.11	\$38.48	
Burma	\$1.61	\$0.02	\$0.05	\$0.26	\$0.23	\$1.45	\$0.85	\$0.54	\$5.07	\$0.85	\$5.07	
Burundi	\$1.17	\$0.52	\$7.96	\$2.90	\$1.07	\$0.60	\$0.13	\$0.13	\$14.85	\$0.13	\$14.85	
Cambodia	\$1.30	\$1.64	\$0.35	\$1.04	\$0.43	\$0.02	\$0.24	\$1.17	\$8.37	\$0.24	\$8.37	
Cameroon	\$2.22	\$1.51	\$9.73	\$0.88	\$2.56	\$0.17	\$0.55	\$0.51	\$19.19	\$0.55	\$19.19	
China	\$0.16	\$0.40	\$0.01	\$0.22	\$0.14	\$0.01	\$0.01	\$0.23	\$1.21	\$0.01	\$1.21	
Costa Rica	\$0.25	\$0.09	\$0.01	\$0.10	\$0.01	\$0.01	\$0.06	\$0.29	\$0.81	\$0.06	\$0.81	
Cote d'Ivoire	\$40.16	\$4.93	\$8.40	\$5.26	\$20.15	\$4.15	\$5.58	\$0.51	\$90.64	\$1.49	\$90.64	
Dominica	\$0.02	\$0.01	\$0.00	\$0.01	\$0.06	\$0.05	\$0.00	\$0.00	\$0.15	\$0.00	\$0.15	
Dominican Republic	\$1.91	\$0.67	\$0.95	\$0.00	\$0.73	\$0.41	\$0.02	\$0.93	\$7.07	\$0.41	\$7.07	
Democratic Republic of Congo	\$13.94	\$1.54	\$10.32	\$5.36	\$3.85	\$1.39	\$0.96	\$0.22	\$37.99	\$0.39	\$37.99	
El Salvador	\$0.64	\$0.35	\$0.21	\$0.08	\$0.21	\$0.01	\$0.36	\$0.47	\$2.12	\$0.01	\$2.12	
Ethiopia	\$54.72	\$5.57	\$13.43	\$9.57	\$26.59	\$14.87	\$5.90	\$0.01	\$137.10	\$5.51	\$137.10	
Ghana	\$0.41	\$0.15	\$0.18	\$0.24	\$1.07	\$0.71	\$1.37	\$0.90	\$5.24	\$1.37	\$5.24	
Grenada	\$0.02	\$0.02	\$0.00	\$0.00	\$0.07	\$0.00	\$0.00	\$0.01	\$0.13	\$0.00	\$0.13	
Guatemala	\$1.00	\$0.45	\$0.27	\$0.27	\$0.27	\$0.10	\$0.19	\$0.89	\$3.17	\$0.19	\$3.17	
Guyana	\$2.12	\$0.34	\$0.14	\$0.64	\$0.33	\$0.20	\$0.34	\$0.24	\$4.69	\$0.34	\$4.69	

Table 5. Reported PEPFAR Expenditures by Program Area for Core Programs, 2015 Fiscal Year (October 2014 to September 2015), Millions US

Country	Facility-based care, treatment, and support	Community-based care, treatment, and support	Prevention of mother to child transmission of HIV	Voluntary male medical circumcision	HIV testing	Laboratory	Orphans and vulnerable children	Prevention for priority populations	Persons who inject drugs	Female sex workers	Men who have sex with men and transgender	TOTAL Core Programs *
Haiti	\$44.60	\$6.97	\$10.20	\$10.52	\$19.09	\$6.29	\$3.58	\$0.44	\$102.38	\$0.70	\$0.44	\$102.38
Honduras	\$0.64	\$0.13	\$0.25	\$0.63	\$0.17	\$0.03	\$0.77	\$0.69	\$3.18	\$0.77	\$0.69	\$3.18
India	\$2.98	\$0.13	\$0.31	\$0.25	\$0.83	\$0.66	\$1.52	\$1.15	\$10.47	\$1.42	\$1.15	\$10.47
Indonesia	\$0.55	\$0.73	\$0.05	\$0.42	\$0.54	\$0.00	\$0.45	\$1.19	\$5.50	\$1.16	\$1.19	\$5.50
Jamaica	\$0.57	\$0.63	\$0.16	\$0.16	\$0.23	\$0.09	\$0.20	\$1.25	\$3.40	\$0.27	\$1.25	\$3.40
Kazakhstan	\$0.83	\$0.50	\$0.18	\$0.18	\$0.32	\$0.01	\$0.56	\$0.12	\$2.59	\$0.06	\$0.12	\$2.59
Kenya	\$272.48	\$10.23	\$25.72	\$13.10	\$19.80	\$27.98	\$7.44	\$2.19	\$412.28	\$6.28	\$2.19	\$412.28
Kyrgyzstan	\$0.36	\$0.35	\$0.28	\$0.28	\$0.10	\$0.02	\$0.76	\$0.15	\$2.17	\$0.15	\$0.15	\$2.17
Laos	\$0.14	\$0.08	\$0.05	\$0.20	\$0.05	\$0.04	\$0.36	\$0.92	\$0.92	\$0.04	\$0.36	\$0.92
Lesotho	\$4.41	\$0.91	\$3.22	\$5.45	\$2.79	\$1.80	\$5.35	\$25.50	\$64.65	\$1.59	\$0.18	\$64.65
Malawi	\$19.94	\$3.63	\$7.52	\$10.91	\$8.19	\$7.18	\$2.55	\$0.19	\$242.57	\$4.37	\$0.30	\$242.57
Mozambique	\$107.97	\$13.97	\$31.47	\$22.85	\$14.87	\$25.54	\$12.51	\$0.08	\$36.58	\$0.88	\$0.30	\$36.58
Namibia	\$8.49	\$6.40	\$1.11	\$6.01	\$4.10	\$2.62	\$3.65	\$0.30	\$33.33	\$0.37	\$0.30	\$33.33
Nicaragua	\$0.32	\$0.21	\$0.43	\$0.43	\$0.18	\$0.10	\$0.14	\$0.95	\$2.33	\$0.14	\$0.95	\$2.33
Nigeria	\$155.50	\$22.79	\$37.49	\$0.00	\$43.39	\$32.37	\$1.87	\$2.86	\$341.5	\$8.29	\$2.86	\$341.5
Panama	\$0.46	\$0.22	\$0.21	\$0.21	\$0.12	\$0.01	\$0.16	\$0.38	\$1.56	\$0.16	\$0.38	\$1.56
Papua New Guinea	\$0.55	\$0.03	\$0.01	\$0.50	\$0.10	\$0.02	\$0.52	\$0.50	\$2.24	\$0.52	\$0.50	\$2.24
Rwanda	\$35.79	\$1.52	\$7.06	\$5.84	\$10.99	\$4.31	\$0.89	\$0.54	\$74.94	\$0.89	\$0.54	\$74.94
Saint Kitt and Nevis	\$0.09	\$0.03	\$0.00	\$0.00	\$0.04	\$0.00	\$0.01	\$0.04	\$0.21	\$0.01	\$0.04	\$0.21
Saint Lucia	\$0.02	\$0.00	\$0.00	\$0.00	\$0.04	\$0.00	\$0.01	\$0.01	\$0.09	\$0.00	\$0.01	\$0.09
Saint Vincent	\$0.01	\$0.01	\$0.01	\$0.01	\$0.07	\$0.01	\$0.02	\$0.01	\$0.18	\$0.01	\$0.01	\$0.18
South Africa	\$111.78	\$20.12	\$23.62	\$61.09	\$33.23	\$17.61	\$0.42	\$2.79	\$313.05	\$2.53	\$2.79	\$313.05
South Sudan	\$3.79	\$0.03	\$1.41	\$2.19	\$0.79	\$0.59	\$0.47	\$0.01	\$9.28	\$0.47	\$0.01	\$9.28

Table 5. Reported PEPFAR Expenditures by Program Area for Core Programs, 2015 Fiscal Year (October 2014 to September 2015), Millions US

Facility-based care, treatment, and support	Community care, treatment, and support	Prevention of mother to child transmission of HIV	Voluntary male medical circumcision	HIV testing	Laboratory	Orphans and vulnerable children	Prevention for priority populations	Persons who inject drugs	Female sex workers	Men who have sex with men and transgender	TOTAL Core Programs *
\$0.02	\$0.02	\$0.02	\$0.11	\$0.05	\$0.01	\$0.02	\$0.06	\$0.05	\$0.02	\$0.05	\$0.33
\$9.51	\$3.89	\$5.78	\$2.11	\$3.66	\$1.42	\$0.00	\$0.79	\$0.17	\$0.00	\$0.17	\$36.17
\$0.37	\$0.41	\$0.11	\$0.17	\$0.01	\$0.01	\$0.87	\$0.28	\$0.08	\$0.87	\$0.08	\$2.30
\$92.32	\$21.31	\$34.29	\$22.45	\$20.14	\$8.06	\$2.12	\$2.82	\$1.19	\$2.12	\$1.19	\$254.99
\$1.04	\$0.75	\$0.07	\$0.25	\$2.64	\$0.43	\$0.04	\$0.04	\$1.31	\$0.04	\$1.31	\$6.54
\$0.05	\$0.05	\$0.05	\$0.21	\$0.05	\$0.02	\$0.17	\$0.17	\$0.23	\$0.17	\$0.23	\$0.77
\$119.58	\$10.45	\$17.91	\$11.74	\$13.81	\$6.49	\$0.15	\$2.28	\$1.26	\$0.15	\$1.26	\$229.19
\$1.60	\$0.54	\$0.06	\$1.74	\$1.84	\$3.51	\$0.64	\$0.08	\$0.64	\$1.75	\$0.64	\$11.80
	\$0.00				\$0.10	\$0.00			\$0.10		\$0.10
\$21.38	\$0.76	\$0.94	\$6.38	\$4.42	\$0.14	\$3.20	\$1.55	\$1.42	\$3.20	\$1.42	\$40.37
\$99.99	\$9.57	\$21.39	\$35.52	\$12.98	\$8.42	\$0.23	\$2.32	\$0.24	\$0.23	\$0.24	\$218.47
\$33.69	\$3.17	\$6.21	\$7.77	\$7.42	\$11.60	\$0.55	\$0.55	\$0.24	\$0.55	\$0.24	\$100.94
\$1,286	\$161	\$291	\$294	\$253	\$115	\$17	\$53	\$31	\$17	\$31	\$2,948

Table 6. Unit Expenditures by Program Area for Core Programs

Country	Adult ART	Pediatric ART	Pregnant woman HIV tested	Voluntary medical male circumcision	HIV tested	Orphans and vulnerable children	Persons who inject drugs	Female sex workers	Men who have sex with men and transgender
Burundi	\$50.50	\$47.07	\$7.79	\$4.14	\$65.50	\$45.28	\$42.24	\$130.51	\$60.31
Cameroon	\$17.14	\$14.28	\$4.63	\$3.53	\$31.28	\$24.40	\$348.15		
Cote d'Ivoire	\$337.18	\$364.43	\$6.96	\$8.24					
Democratic Republic of Congo	\$294.30	\$300.88	\$19.79						
Ethiopia	\$167.48	\$185.11	\$1.98	\$61.62	\$19.26	\$54.13			
Haiti	\$714.75	\$777.57	\$19.08	\$9.94	\$101.94	\$36.19	\$52.75		
Kenya	\$324.93	\$333.34	\$6.76	\$50.37	\$37.28	\$93.26	\$26.70	\$88.68	
Lesotho	\$21.79	\$24.79	\$13.60	\$155.74	\$162.35				
Malawi	\$34.54	\$35.16	\$2.62	\$104.77	\$12.06	\$494.34			
Mozambique	\$248.66	\$423.32	\$4.75	\$105.55	\$42.21	\$259.06			
Nigeria	\$191.47	\$202.08	\$4.95	\$4.96	\$26.03	\$48.83	\$88.86		
Rwanda	\$410.83	\$508.48	\$9.69	\$89.25	\$50.36	\$53.96	\$457.30		
South Africa	\$19.95	\$21.13	\$6.11	\$126.36	\$59.70	\$59.13	\$120.71		
South Sudan	\$162.81	\$166.98	\$14.39	\$45.82	\$328.92	\$2,189.13			
Swaziland	\$68.23	\$71.08	\$75.74	\$14.13	\$78.29	\$236.00	\$182.07		
Tanzania	\$138.22	\$147.70	\$6.02	\$49.58	\$42.05	\$56.93	\$188.00		
Uganda	\$194.66	\$481.29	\$2.81	\$58.12	\$38.24	\$34.92	\$272.24		
Vietnam	\$472.45	\$177.81	\$1.52	\$28.48	\$41.43	\$39.63	\$88.55		
Zambia	\$162.55	\$177.81	\$6.24	\$47.67	\$26.70	\$145.56	\$1,324.51		
Zimbabwe	\$142.12	\$137.48	\$3.38	\$11.00	\$21.00	\$21.76			



■ A young family in Kenya.

Many factors contribute to the range of the unit expenditure across countries, such as the extent of PEPFAR’s support and the number of beneficiaries reached with PEPFAR support. From a global perspective, PEPFAR reviews the range to gain a better understanding of the potential variance in the type of support provided for certain interventions. For example, the FY 2015 PEPFAR spend per patient on a year of treatment was \$20 and \$338 in South Africa and Cote d’Ivoire, respectively. This variance reflects the extent of PEPFAR support. In South Africa, the government finances most of the HIV/AIDS effort; therefore, PEPFAR’s support is able to be leveraged to benefit more individuals on treatment.

PEPFAR has used EA data to identify efficiencies (high performing partners) and improve portfolio management, working with implementing partners to ensure reduction in unit costs in those with costs outside of the norm and identifying partners with existing cost effective implementation to take these to scale. During the annual COP process, data are used to evaluate past year’s performance. During

the review, one country team compared their past year’s budget estimate with their performance and found that the PEPFAR spending per person reached was higher than what was budgeted for the proposed targets. The team was able to evaluate the reasons for the variance and reprogram accordingly. Teams have also used the data to identify data quality gaps. When spending is linked with results, this has highlighted potential data quality issues. For example, when the team reviewed the data and found that one partner was an outlier with high

spends per beneficiary, it was then determined that the reason for the result was that the partner had not appropriately reported its results. This did not come to light until the results were linked to spending and partner performance did not align with the team’s expectations.

Import Duties and Internal Taxes Imposed on Commodities

An important part of the program efficiency gains has been optimizing the costs of commodities; one aspect of this is ensuring that commodities do not have internal import taxes imposed. By and large, PEPFAR-procured commodities are imported tax-free in countries where PEPFAR is supporting the national HIV response, but in certain cases, commodities are taxed. In such situations, the PEPFAR country teams work with partner governments to reverse taxation charges and avoid future import duties. If import or internal taxes are imposed and not reimbursed, the Department of State would comply with any related and applicable legal restrictions on future assistance to that country.

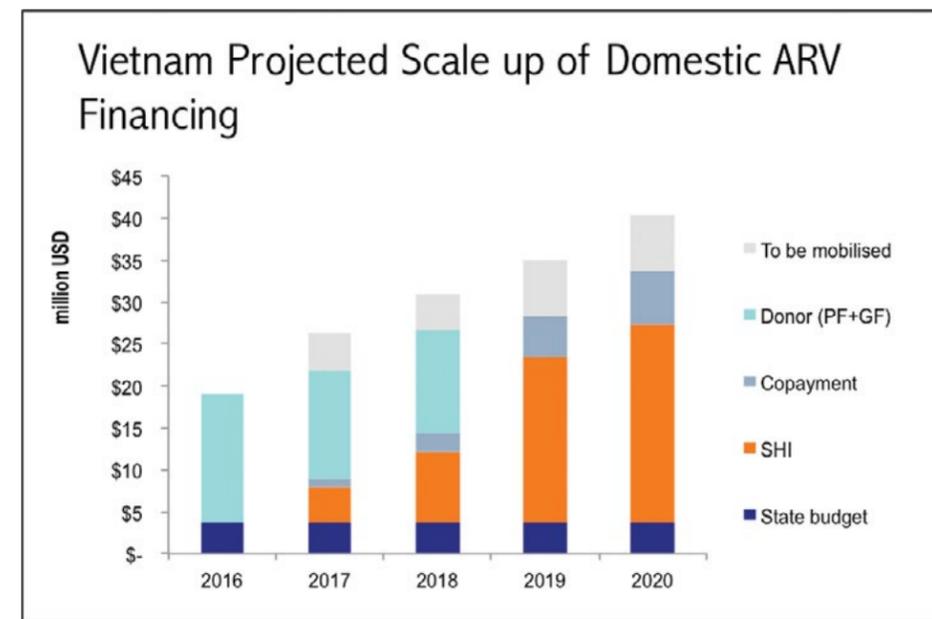
APPENDIX Q: Engaging Partner Governments and Civil Society

For PEPFAR, sustainability means that a country has the laws and policies, services, systems, and resources required to effectively and efficiently control the HIV/AIDS epidemic. Sustainability demands a long-term effort to ensure that a country establishes and maintains requisite levels of fiscal ability, technical capability, political will, and citizen engagement. PEPFAR uses a sustainability framework that emphasizes a drive to control the epidemic to the point that the remaining disease burden can be financed by a host country’s resources and managed with its own technical capability. In the past, PEPFAR has emphasized formal partnership frameworks to drive host country stakeholders toward sustainability and self-sufficiency. Now, PEPFAR emphasizes that partnerships should be informally embedded in all aspects of program development and exe-

cution. Embedding partnerships into daily operations encourages shared responsibility that engages all country stakeholders to develop a system that fits their needs and realities, with an eye toward full host country responsibility in the future.

Engagement with civil society, including FBOs, is a strong driver of sustainability. PEPFAR encourages the full participation of civil society in every stage of our programming and planning, from advocacy to service delivery, as it is a key to the success and sustainability of PEPFAR and the global effort to combat HIV. Civil society has been a leading force in the response to HIV since the beginning of the epidemic, and this longstanding involvement has resulted in expertise and relationships with local communities that nonindigenous organizations often struggle to achieve. It is critical to ensure that community and civil society are meaningfully engaged and have a voice at the decision-making table.

Figure 43. Vietnam Projected Scale-Up of Domestic ARV Financing



Efforts to embed partnerships in normal program operation start with the development of an operational plan. More than ever before, partner governments and in-country CSOs were involved in the development, planning, and approval of the 2016 COPs. During development of the COPs, PEPFAR teams shared PEPFAR guidance with partner governments and CSOs, held events for them to introduce their 2016 COPs, and invited them to COP planning meetings. For the first time, representatives of MOH and close to 100 different CSOs, including FBOs, attended the 2016 COP in-person reviews.

Together, PEPFAR teams, PEPFAR headquarters representatives, multilateral colleagues, and MOH and CSO partners reviewed epidemiological and program data, allowing all stakeholders to analyze and understand the information that underpins PEPFAR program planning and decision-making. MOH presence allowed real-time, effective discussion concerning high-level policy decisions, including Test and START, and ensured MOH buy-in on planned activities. During the Vietnam COP discussion, the minister of health from Vietnam presented the country's plan to assume the cost of treatment in the country, as shown in Figure 43. CSO presence helped better integrate the concerns of civil society into COP planning, and in many instances, CSOs strongly advocated to move the PEPFAR teams forward to reach even more PLHIV with services during COP 2016 implementation.

The 2016 COP cycle led to increased coordination and effective programming between U.S. government and country teams. For example, during Malawi's in-person COP review, civil society, PEPFAR Malawi, and the team from PEPFAR headquarters advocated with the government of Malawi representatives in attendance and their colleagues in-country to pilot differentiated service delivery models in three districts to increase program effectiveness.

Subsequent conversations between PEPFAR Malawi and the MOH have been centered on planning and timelines for monitoring these differentiated service delivery models in the focus districts, including, for example, the percentage of stable patients who have entered fast-track refills. It is expected that the focus on these new models will yield enhanced levels of efficiency and effectiveness, and may also produce valuable findings that can be applied by other PEPFAR programs.

In South Sudan, as a direct result of COP 2016 input, the country team reprogrammed \$1.6 million in funding that supported the expansion of new service delivery models and innovations in index testing, community-based ARV distribution, and adherence support. In Zimbabwe, both local and international CSOs were involved in COP review discussions and successfully advocated for a \$6 million increase in funding to increase DSD activities to accelerate treatment coverage and expand key population services.

Quarterly performance reviews are similarly shared with in-country stakeholders, including governments and civil society at the national and local levels. PEPFAR has developed the POART process, which is a quarterly review of progress to identify weaknesses and areas that require midcourse adjustments. Results are reviewed in person with partner country stakeholders and they are integral to identifying problems and bottlenecks that inhibit performance and mitigating the problems with appropriate solutions and actions.

PEPFAR teams are building new relationships in-country. In 2016, the U.S. Department of the Treasury joined PEPFAR as an implementing agency with the important goal of engaging peer MOFs in the HIV/AIDS response. For example, in countries like Zambia and Uganda, Treasury advisors are facilitating MOF involvement in the development of country HIV plans,

and are supporting the establishment of HIV expenditure steering committees. Treasury is also working on a range of activities, including helping domestic resource mobilization efforts in Technical Assistance/Technical Cooperation countries where the country has scored low on the SID, and assisting the execution of HIV budgets in long-term strategy countries.

While PEPFAR moves forward in its drive to be more efficient and transparent, PEPFAR country teams will continue to expand their collaboration with local civil society, including activists, advocacy groups, and service delivery organizations, to ensure they are actively engaged in PEPFAR processes and in the country-level HIV/AIDS response. PEPFAR will also work to:

- » expand PPPs to address critical issues and challenges faced by key populations;
- » ensure that programs such as the Key Populations Investment Fund, the Faith-Based Initiative, and the Elton John LGBT Fund scale up quality HIV/AIDS prevention, care, and treatment programs;
- » continue to work with stakeholders and host governments to address social and structural factors (such as stigma, discrimination, violence, and human rights violations); and
- » work more closely with partners such as community and civil society organizations, governments, UNAIDS, the Global Fund, and others to strengthen and coordinate efforts.

As PEPFAR countries move toward more sustainable programs and transition to local ownership, many national governments will depend on civil society to an even greater extent to meet the health needs of their citizens. Meaningful engagement with PEPFAR builds the capacity of local CSOs to meet this challenge, better preparing them to play a leadership role now and in the future.

APPENDIX R: Engaging Faith-Based, Locally Based, and Minority Partners

Ending AIDS by 2030 requires the global community to work together, including FBOs, locally based partners, and minority-serving institutions.

Faith-Based Organizations (FBOs)

From the earliest days of the epidemic, FBOs have been central to the international HIV/AIDS response. Compelled by their mission to care for those most in need, FBOs and religious institutions have been on the ground for decades, even centuries, providing care and treatment to communities outside the reach of public health systems, and acting as a voice for the voiceless. In the global context, FBOs were among the first programs to respond to the particular needs of children infected with, affected by, and orphaned by HIV/AIDS.

In the past 35 years, we have made great progress in reducing the impact of HIV/AIDS on families and communities around the world, and faith-based partners remain indispensable partners in the effort. In many PEPFAR coun-



CREDIT: Albin Hillert/World Council of Churches

■ Faith leaders gather for a National HIV Interfaith Consultation in Kenya.

tries, FBOs are the largest nongovernmental provider of HIV services. For example, a PEPFAR-funded study carried out by the Interfaith Health Program at Emory University found that in high-burden counties in Kenya, 28 percent of PLHIV on ART receive services from faith-based facilities. In Nairobi and Mombasa Counties, two high-burden counties containing major metropolitan areas, the percentages were even greater: 47.3 percent and 52.3 percent, respectively. Indeed, FBOs and faith-based facilities are often the bedrock of local health systems. This is why PEPFAR has committed more than \$2 billion in planned funding to more than 40 faith-based partners since 2004. Yet to help our faith-based partners contribute to a truly sustainable HIV/AIDS response, more than service provision funding will be necessary; PEPFAR must contribute to local capacity-building and technical assistance, particularly in the area of data collection and analysis.

In July 2015, *The Lancet* published a seminal series on faith-based health care that called for more robust data on the contributions of faith-based health providers. PEPFAR is committed to data for impact. In response to *The Lancet*



■ A family visits PEPFAR-funded Faith-Based Organization (FBO) PASADA in Tanzania.

series, PEPFAR, in partnership with UNAIDS, announced the PEPFAR/UNAIDS Faith-Based Initiative, a \$4 million initiative to fast-track the faith-based response to achieve the UNAIDS 90-90-90 goals by strengthening the capacity of faith-based leaders and organizations to advocate for and deliver a sustainable HIV response.

Throughout 2016, PEPFAR's faith-based partners advanced their work on phase one of the PEPFAR/UNAIDS Faith-Based Initiative. Implementing partners are active in the U.S. and in Kenya and Zambia, highlighting not only the interconnectedness of the global HIV/AIDS epidemic, but also the leadership role the United States must play in its response.

On the ground, PEPFAR-supported faith-based partners are engaged in:

7. Research on FBO service delivery: An academic consortium, including St Paul's University, Limuru; the University of Cape Town; and Emory University, is working together to build on the existing evidence base of faith-based facilities' contributions to HIV services in Kenya and Zambia.

8. Addressing stigma and discrimination in health care settings: Emory University is partnering with the African Christian Health Associations Platform, the Christian Health Association of Zambia, and the Christian Health Association of Kenya to better understand the influence of religion on stigma for those communities that experience the highest HIV disease burden. Their partnership is also strengthening health and community systems by identifying the clinical knowledge and skills that providers in faith-based health care facilities need in order to provide high quality clinical care to those same key and priority populations.

9. Demand creation and addressing stigma and discrimination in communities: The



■ A clergy member weighs an infant at a health clinic in South Sudan.

World Council of Churches – Ecumenical HIV/AIDS Initiatives and Advocacy, in partnership with the World Young Women's Christian Association, convened national- and county-level interfaith and intergenerational dialogues using interactive methodologies and tools to address sensitive issues such as sexuality, address stigma and discrimination in communities, and generate increased uptake of testing and demand for HIV treatment.

10. Building stronger faith-based health systems: The African Christian Health Association (ACHAP) is a network of 30 national-level Christian health systems that provides essential health services in 28 sub-Saharan African countries. Working with the members of the academic consortium, ACHAP is funded through the Faith-Based Initiative to strengthen its technical working groups on HIV health services,

program administration, financing, and data management. In addition, ACHAP is building the HIV service capacity of smaller member systems by offering the administrative and clinical leaders of those systems opportunities for on-site, intensive, individualized learning at well-established faith-based systems that are prime partners in PEPFAR's ongoing efforts to address HIV.

Simultaneously, PEPFAR's faith-based implementing partners have been active in the U.S. and abroad, strengthening FBO leadership and advocacy for a sustained, fast-track approach to ending the AIDS epidemic by 2030. The Black AIDS Institute (BAI) is engaging and mobilizing black faith institutions and faith leaders in efforts to address HIV in the U.S. as well as strengthen their capacity to advocate and partner with African faith institutions for a robust response to the global epidemic. Addi-

tionally, early in 2017, the BAI is expected to publish a report on the role of the black church in America and the global HIV/AIDS response. The report will illuminate the experience, efficacy, and benefits of U.S. faith-based efforts in impacting the global HIV/AIDS pandemic.

The World Council of Churches – Ecumenical Advocacy Alliance (WCC-EAA) is utilizing its considerable convening power and history of advocacy to mobilize influential religious leaders and FBOs at national and international levels. Notably, the WCC-EAA convened faith and secular leaders from various backgrounds at an interfaith prayer breakfast alongside the 2016 United Nations General Assembly in New York. Attendees engaged in a discussion centered on the role that faith-based communities can play in addressing systemic stigma and discrimination, as well as other factors that affect HIV infection, such as poverty, racism, and gender disparities.

PEPFAR and UNAIDS also partnered with the Roman Catholic Church, the largest nongovernmental provider of health services in the world, through Caritas Internationalis. The

noteworthy contributions to the Faith-Based Initiative made by Caritas are aimed at the most vulnerable among us: children. While great progress has been made in getting people on treatment, children remain at a considerable disadvantage as HIV/AIDS drugs and service programs are not created with their particular needs in mind. In order to address this, Caritas Internationalis, along with PEPFAR and UNAIDS, convened field representatives from different faith traditions, government employees, and multilateral partners at the Vatican’s Paediatric Hospital Bambino Gesù in Rome in March 2016 to discuss issues around pediatric treatment. At the conclusion of the meeting, attendees issued a call to action, “Early Diagnosis for Children and Adolescents Living with HIV: Urgent Call by Religious and Faith-Inspired Organizations for Greater Commitment and Action,” focused on ending new HIV infections among children while keeping their mothers healthy.

His Eminence Cardinal Peter Turkson, then president of the Pontifical Council for Justice and Peace, convened a high-dialogue at the Vatican in conjunction with the Rome meeting that included government officials, including Ambassador Deborah Birx of PEPFAR, multilateral partners, and senior representatives from pharmaceutical companies to address jointly how to ensure access to treatment for all. Guided by the words of His Holiness Pope Francis I in his encyclical *Laudato Si*—“God gave the earth the whole human race for the sustenance of all its members, without excluding or favoring anyone”— attendees explored the ethical considerations of providing scaled-up access to treatment and diagnostics to improve the lives of everyone, especially children, living with HIV. In his greeting to participants, His Holiness urged continued dialogue, stating on April 14, 2016,



CREDIT: Global Fund/John Rae

■ A health care worker meets with mothers at an HIV clinic in Zimbabwe.

Table 7. Historically Black Colleges and Universities (HBCUs) Receiving PEPFAR Funding

MINORITY SERVING INSTITUTION	FUNDING YEARS	PEPFAR OU	IMPLEMENTING AGENCY
Charles Drew University	2016 (COP2015) 2017 (COP2016)	Angola	Department of Defense
Charles Drew University	2016 (COP2015) 2017 (COP2016)	Rwanda	Department of Defense
Howard University	2016 (COP2015) 2017 (COP2016)	South Africa	HHS/CDC

“I sincerely hope that your dialogue will not come to an end after this brief session; let it continue until we find the will, the technical expertise, the resources, and the methods that provide access to diagnosis and treatment available to all, and not simply to a privileged few....”

PEPFAR is committed to continuing to engage with our faith-based partners, as they are and will remain key stakeholders in the HIV/AIDS response. Their role needs to be better recognized, understood, and supported—not only by PEPFAR, but by all global funding institutions. In many countries hardest hit by the epidemic, religion plays an important role, not only spiritually, but as a source of information. Further, FBOs are an essential partner in issues related to stigma and discrimination, which remain barriers to PLHIV accessing prevention and treatment services.

United States Minority Serving Institutions (MSI)

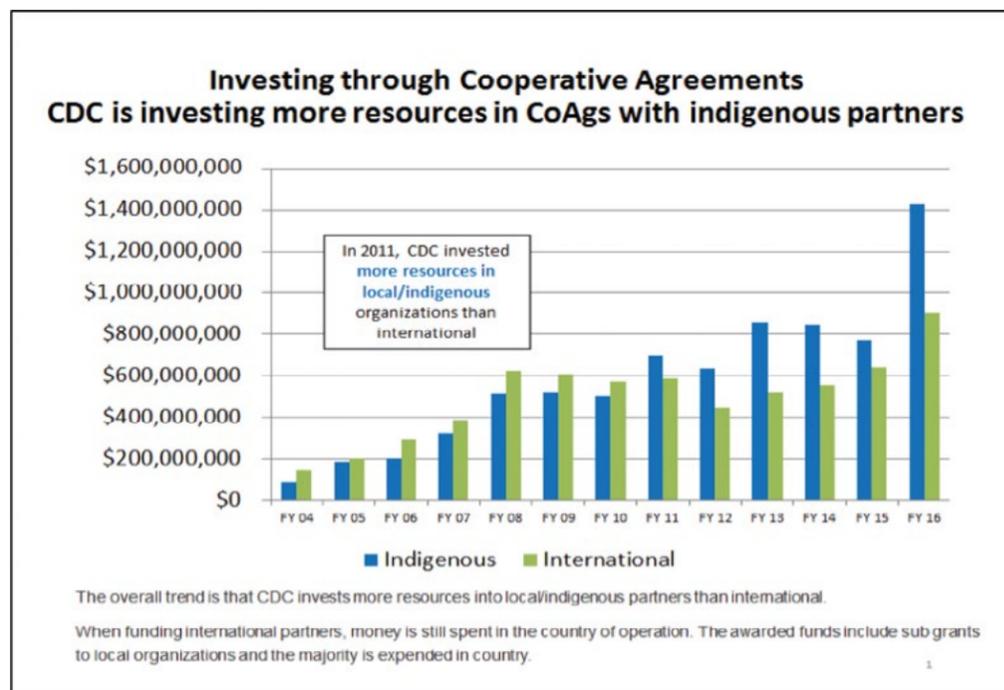
United States MSI, including Historically Black Colleges and Universities (HBCUs), bring particular strength and expertise in the delivery

of HIV prevention, care, and treatment services in resource-limited environments and to vulnerable populations. Beyond the essential work that they do in their own communities, HBCUs receive PEPFAR funding to carry out our shared goals together (Table 7).

In 2016, Ambassador Birx directly engaged with students, faculty, and administrators of Charles R. Drew University of Medicine and Science and Florida International University to strengthen our collaborative partnerships. In previous years, those discussions included Spelman College, Morehouse College, and Meharry Medical College. Recognizing that MSIs have unique expertise in addressing stigma, discrimination, and other social determinants of health, PEPFAR is working with a consortium of these institutions to develop a new partnership in 2017 that will specifically combat these barriers to prevention and care.

Additionally, the PEPFAR Scientific Advisory Board includes experts affiliated with HBCUs, including Celia Maxwell of Howard University and Lejeune Lockett of Charles Drew University of Medicine and Science, and the faith community, such as Reverend Edwin Sanders of the

Figure 44. Increasing PEPFAR Resources to Local, Indigenous Partners – CDC Experience



Metropolitan Interdenominational Church of Nashville and Nyambura Njoroge of the World Council of Churches. The Board issued key recommendations this year on PEPFAR’s future financing environment, on prevention and treatment of TB among PLHIV, and on following the WHO guidelines on VMMC.

Locally Based Partners

Sustainable epidemic control will not be possible without locally based partners. PEPFAR 3.0 reiterated that PEPFAR cannot achieve an end to HIV/AIDS alone—strong partnerships are critical. That’s why PEPFAR seeks to foster locally led prevention, treatment, and care services by partnering with local organizations and institutions. In fact, the DREAMS Innovation Challenge to support innovative solutions to unmet needs in the DREAMS Core Package

generated ideas from various new and community-based partners. As a result, nearly half of the 55 winners are new PEPFAR partners who previously had never received PEPFAR funding; 64 percent of winners are small, community-based organizations.

Additionally, PEPFAR invests in local organizations through the Local Capacity Initiative (LCI). PEPFAR has committed \$25.5 million to support local NGOs in up to 14 countries where PEPFAR works. Since 2014, these resources have gone toward helping NGOs build their capacity for addressing the HIV/AIDS epidemic through legal and policy advocacy. The LCI also assists local organizations in reducing stigma and discrimination and planning and implementing country programs.

Finally, PEPFAR not only partners with local organizations and institutions, it actively solicits their feedback and recommendations on its own planning processes. Local civil society is engaged in quarterly POART meetings, and country teams are charged with soliciting input and providing feedback to CSOs on quarterly data and POART meetings. Local civil society is also fully engaged in developing and reviewing COPs.

APPENDIX S: Engaging International and Nongovernmental Partners

In 2016, PEPFAR continued several initiatives that focused on bolstering the role of new partners and CSOs—core leaders in the HIV/AIDS response and in protecting human rights so that all people have access to HIV/AIDS services without the fear of facing stigma and discrimination.

» **Inclusive PEPFAR Planning Process:** PEPFAR committed to engaging, empowering, and supporting civil society at every step of the COP/ROP process in 2016. The positive impact of expanded engagement in program oversight during the implementation phase continued into the planning and review processes for the 2016 plans. All PEPFAR coun-



Advocates discuss outreach to key populations in Cambodia.

tries were joined by civil society, multilateral partners and bilateral partners, and host government counterparts to analyze site-level quarterly data and other key data including the SID that were the foundation for the upcoming annual plans. During the COP 2016 in-person reviews, dynamic dialogue and engagement occurred with the headquarters team led by Ambassador Birx, resulting in an impactful plan with broad partner commitment. Additionally, in December 2016, PEPFAR posted its draft 2017 COP/ROP Guidance online to collect feedback from all stakeholders, including CSOs. The comments directly informed the final guidance received by teams in January of 2017.

» **Gender and Sexual Diversity Trainings (GSD):** Throughout 2015 and 2016, PEPFAR trained more than 2,700 PEPFAR staff at headquarters and throughout the field, implementing partners, other U.S. government staff, and United Nations staff. Building on the success of these trainings, the Health Policy Plus project and PEPFAR are developing a GSD blended learning package that will include online and in-person training components that can be organized, implemented, and managed at country level. The blended



An HIV activist in Kenya.

learning package requires each PEPFAR staff member to spend 90 minutes participating in the online interactive GSD curriculum and to join an in-person panel discussion with local gender and sexual minority representatives around HIV, human rights, and meaningful engagement of GSD in PEPFAR programming. Many PEPFAR programs operate in countries where gender and sexual minorities face increasing violence, legal sanctions, a disproportionate burden of HIV, and are further imperiled under hostile social and political conditions, making our efforts to scale up HIV programs increasingly difficult. It is important that PEPFAR and partner staff understand existing constructs around gender and sexual diversity and its impact on the HIV epidemic, especially high-burden sexual minorities.

- » **PEPFAR's Local Capacity Initiative (LCI):** The LCI provides funding to local nongovernmental organizations in 14 PEPFAR countries to support and build their capacity to address the HIV/AIDS epidemic through stigma and

discrimination reduction, and planning and implementation of country programs. To date, LCI grantees have developed and utilized the community scorecard tool to empower local communities to monitor health service provisions, including services to key populations, and used the results of the scorecard to engage in dialogue with decision makers to affect change. This effectively gives community leaders power to provide oversight of the local health system. In addition to effecting change at the local level, data from the community scorecards were used to inform national advocacy campaigns in several countries. Other LCI grantees have leveraged their national advocacy campaigns to increase their countries' health budgets and advocate for a reduction in prices for ARVs.

- » **Robert Carr Civil Society Networks Fund:** PEPFAR is a founding donor of the Robert Carr Civil Society Networks Fund (RCNF), which aims to support and strengthen the capacity of global and regional civil society networks as strong partners in the delivery of HIV services and as champions of human rights. PEPFAR committed \$10 million to the most recent replenishment of the RCNF. This investment will help to bring often marginalized populations out of the shadows and into prevention services and health care clinics. Through the RCNF, 18 global and/or regional networks were funded throughout every geographic region of the world. The RCNF is especially important to supporting efforts aimed at key populations that include men who have sex with men (MSM), sex workers, transgender individuals, people who inject drugs, and all PLHIV—from young people who have lived with HIV since birth to older men and



■ Community health workers prepare to ride their bicycles to patients' homes in Malawi.

women who have now survived more than a decade due to the success of treatment.

- » **Investing in Key Populations:** PEPFAR has focused on responding to the significant unmet need for comprehensive prevention, care, and treatment programs and services among key populations globally, and has targeted efforts at the local and national level. However, enormous needs persist. While strides have been made in some settings to strengthen HIV clinical and community services serving key populations, size estimates are frequently inaccurate, and there is a lack of adequate resources invested in programs to address social and structural issues that inhibit access to and retention in quality HIV services. It is essential to address socio-structural factors such as stigma, discrimination, violence, and law enforcement harassment, as well as laws and policies that criminalize drug use, sex work, and diverse forms of gender identity and sexuality. These factors create barriers to accessing HIV services and limit the effectiveness of service delivery.

Originally launched in November 2015, PEPFAR and the Elton John AIDS Foundation (EJAF) continue a \$10 million partnership to provide grants to organizations working to meet the HIV-related needs of key populations, with an initial focus on sub-Saharan Africa. EJAF and PEPFAR have each invested \$5 million to improve access to HIV services for key populations and help to create nonstigmatizing environments by working with community leaders, civil society, and service providers and targeting projects that provide outreach and support to LGBT people within countries with a high HIV burden. A *Rapid Response Fund*, managed by the International HIV/AIDS Alliance and the Global Forum on MSM & HIV, has been created to support activities that respond to immediate and urgent threats to the key population community as well as longer term projects aimed at influencing legal, policy, or other develop-



■ Children meet mascot Buddy Beat TB at the Brooklyn Chest Hospital in South Africa.

ments deemed hostile to those communities. In addition, a *Deeper Engagement Fund* has been created to support grants in Kenya, Uganda, and Mozambique that improve access to HIV prevention, care, and treatment information and services for key populations; decrease stigma and discrimination; and increase the capacity of related community-based CSOs.

APPENDIX T: Addressing the Co-Infections and Co-Morbidities of HIV/AIDS

TB-HIV Co-infection

Worldwide, TB is the leading cause of death from an infectious disease, and by far the leading cause of death among PLHIV in sub-Saharan Africa. As a result of more accurate data, we now realize that the global epidemic of TB is bigger than previously estimated; in 2015, an estimated 10.4 million people developed TB disease, 1.2 million of whom were PLHIV. In that same year, approximately 1.8 million people died from TB, including 400,000 PLHIV (Figure 45). Despite a 30 percent reduction in TB-related mortality among PLHIV compared with 2004 (570,000 deaths), TB still accounted for more than a third of the estimated 1.1 million AIDS-related deaths in 2015. These deaths are almost entirely avoidable and therefore should

no longer be occurring with this frequency as programs scale up. We can prevent TB disease in the first place by scaling up ART, which reduces the risk that a person living with HIV will develop TB by around 65 percent; the addition of TB preventive therapy to ART reduces the risk by 97 percent. In PLHIV who do develop TB disease, early ART can halve mortality. Utilizing the full array of prevention, case-finding, and treatment efforts in those most at risk for TB and TB-related mortality, PEPFAR is poised to substantially reduce the breadth and mortality of the HIV/TB epidemic.

Given the enormous human toll, PEPFAR continues to address the deadly links between TB and HIV as a top policy and programmatic priority. PEPFAR, in alignment with the goals of the *National Action Plan for*

Combating Multidrug-Resistant Tuberculosis (National Action Plan),²¹ aims to dramatically reduce the impact of HIV-associated TB through a combination of expanded access to early HIV diagnosis and treatment, preventive therapy, infection control activities, and early identification and treatment of TB. Achieving the goals set out in the National Action Plan will depend not only on sustained coordination among U.S. agencies to ensure a strategic, whole-of-government approach, but also on close collaboration with other nations' MOH, the WHO, the Stop TB Partnership, the Global Fund, and other domestic and global partners in the fight against TB.

Collaborative TB/HIV activities also offer important opportunities to achieve the

ambitious 90-90-90 goals—testing people with TB for HIV and providing immediate ART to those who test positive saves lives and contributes to epidemic control. In FY 2016, 92 percent of TB patients at PEPFAR-supported facilities had a documented HIV status, compared with just 55 percent in global reporting, and 84 percent of the nearly 320,000 TB patients with HIV were started on ART. In all efforts, PEPFAR closely coordinates with national TB and AIDS programs, multilateral institutions, and other partners to strengthen systems that address both diseases. The Global Fund decision to require the countries with the highest TB and HIV burdens to submit a single concept note for both diseases has improved co-investment, opened opportunities for better coordination, and enhanced impact, and stakeholders from both diseases are increasingly working together to develop programming and expand reach.

Across the cascade of TB/HIV services, PEPFAR-supported programs reflect the following priorities:

- » Achieve the 90-90-90 goals, which will have a significant impact on the TB epidemic in countries with a high burden of both TB and HIV (ART is the most powerful TB prevention measure in PLHIV).
- » Ensure all patients with TB symptoms or diagnosed TB disease receive HIV testing.
- » Provide immediate access to ART for patients with TB who are infected with HIV, with the goal of providing universal (100 percent) ART coverage among HIV-infected TB patients.
- » Support integration of TB/HIV care and treatment to enhance linkage and retention.
- » Implement, track, and report on routine TB screening among PLHIV and ensure diagnostic follow-up for PLHIV who have TB symptoms.

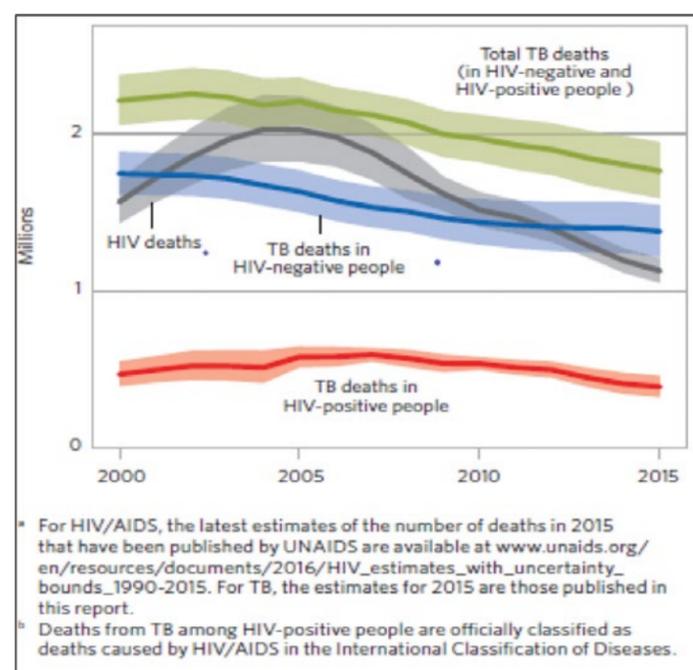


■ Health care workers visit families in rural Kenya.

- » Provide immediate TB treatment for all PLHIV who are diagnosed with TB disease, and TB preventive therapy for all PLHIV who do not have active TB disease.
- » Support TB infection control measures to prevent transmission in health care and community settings.
- » Expand interventions, including the GeneXpert MTB/RIF platform and assays, to improve early diagnosis and treatment of TB among PLHIV.
- » Strengthen TB/HIV program M&E.

PEPFAR continues its efforts to support scale-up of the Cepheid GeneXpert MTB/RIF test, an innovative, fully automated molecular diagnostic test for TB. This test enables programs to diagnose TB quickly, which can help reduce transmission and decrease mortality. In the coming year, more sensitive cartridges will be available, and truly portable devices will allow testing at any point of care; PEPFAR will support further expansion of this platform to help ensure that sensitive TB diagnostic testing is accessible to all PLHIV.

Figure 45. Global Trends in the Estimated Number of Deaths Caused by TB and HIV (millions), 2000–2015



Source: WHO; Global Tuberculosis Report, 2016

²¹ The White House National Action Plan for Combating Multidrug-Resistant Tuberculosis. (2015). Available at: https://www.whitehouse.gov/sites/default/files/microsites/ostp/national_action_plan_for_tuberculosis_20151204_final.pdf

Cervical Cancer

Given the established link between HIV and cervical cancer, since 2006 PEPFAR has supported screening and treatment of pre-cancerous lesions to prevent cervical cancer in HIV-positive women, termed “screen and treat.” PEPFAR has also worked with countries and the Vaccine Alliance (GAVI) to increase access to primary prevention of cervical cancer through Human papillomavirus (HPV) vaccination. PEPFAR focuses on secondary prevention of cervical cancer, providing screening and treatment for pre-cancerous lesions to prevent the development of invasive cancer. These cervical cancer programs build on the HIV platform to leverage existing systems and maximize synergies and efficiencies. In most programs, cervical cancer screening and treatment are offered in HIV care and treatment settings, providing integrated service delivery and optimizing accessibility for HIV-positive women. PEPFAR’s efforts to develop and implement cervical cancer screening and treatment programs have laid the groundwork for governments and other partners to build and expand programming to serve broader populations.

PEPFAR is also a founding member of Pink Ribbon Red Ribbon (PRRR), a PPP launched in 2011 focused on combating cervical and breast cancer in developing nations in sub-Saharan Africa and Latin America. Led by the founding partners—the George W. Bush Institute, PEPFAR, Susan G. Komen for the Cure, and UNAIDS, along with multiple private-sector partners and foundations, PRRR expands the availability of prevention, screening, and treatment for cervical cancer and to promote education and early detection for breast cancer. PEPFAR currently supports cervical cancer programming through PRRR in Zambia, Botswana, Tanzania, Ethiopia, and Namibia, and will expand to Mozambique this year. Zambia is considered a flagship program, with HPV vaccination and cervical cancer screening and treatment now



■ A young boy wears an AIDS ribbon during an AIDS awareness event in Ukraine.

available in all 10 provinces at 37 fixed sites, with mobile units reaching an additional 48 sites.

To date, PEPFAR/PRRR programming has supported 341,863 women to be screened for cervical cancer and 119,192 girls to receive all three doses of the HPV vaccine. Importantly, PRRR has served as a catalyst, working closely with host countries to move from pilots to scale and full-country funding. In the first five years of the PRRR partnership, two of the original countries, Botswana and Zambia, are moving from pilots to full scale of the program through internal host country resources, showing its immense power and success. In Zambia, for example, PRRR will transition a

defined set of activities to the management and budget of the government of Zambia by 2019, using a sliding scale for budgeting. This framework will account for all sources of funding for the prevention and treatment of cervical pre-cancer in the country, to maximize results and avoid duplication. “See-and-Treat” activities will continue to target high-HIV prevalence areas of the country supported by PEPFAR. Breast cancer awareness and screenings are also increasing through this partnership—18,000 women have been screened since 2011. The technical assistance and support with the PRRR secretariat has been essential in the progress to date.

APPENDIX U: Strengthening Health Training and Data Systems

Human Resources for Health (HRH)

PEPFAR supports partner countries in increasing HRH in order to deliver HIV services where the epidemic is most acute. PEPFAR’s HRH investments ensure that health workers with the right skills are in the right places to scale up HIV services at the right time to achieve UNAIDS’ 90-90-90 goal. PEPFAR 3.0’s HRH Strategy focuses investments on supporting the delivery of HIV services to priority populations in PEPFAR-supported sites and geographic areas by assessing HRH capacity, supporting HRH supply and retention, improving service quality, and ensuring sustainable financing for health workers providing HIV services.

To support this ambitious strategy, PEPFAR committed \$116.5 million at the end of FY 2015 to strengthen the capacity of health workers to address HIV/AIDS across Africa, including a particular focus on some of the world’s most fragile states. Funding supports an increase in the supply of skilled clinicians available to provide HIV services by expanding the role of Peace Corps’ Global Health Service Partnership

program and by supporting the National Institutes of Health (NIH) Fogarty International Center (FIC) to increase the capacity of key training institutions in Africa. HRH investments are being leveraged to address drivers of HIV and other health epidemics through a five-year commitment with the Health Resources and Services Administration (HRSA). Funding further supports implementation science by NIH-Division of AIDS (DAIDS) to ensure continued PEPFAR investment in evidence-based interventions. In addition to these investments, PEPFAR supports USAID and the CDC to strengthen HRH and also change delivery models to increase their effectiveness to strategically expand the quantity and quality of health workforces to reach 90-90-90 goals.

» U.S. government agencies undertook a harmonized approach to assess gaps and identify country HRH priorities following the Ebola epidemic in Liberia and Sierra Leone and in post-civil war Democratic Republic of the Congo. A new network, the African Forum for Research and Education in Health (AfreHealth), was launched in Nairobi, Kenya in August 2016. AfreHealth provides a platform for continuing the transformation and strengthening of health professional education in Africa, institutionalizing gains that took place under the Medical Education Partnership Initiative (MEPI) and the Nursing Education Partnership Initiative (NEPI).

» The Global Health Service Partnership expanded from two to five countries, resulting in greater collaboration and skills transfer between U.S. and African medical professions and institutions. Sixty-eight U.S. nurses and physicians are serving as visiting faculty in 22 partner nursing and medical academic institutions, providing classroom and clinical education and mentoring to help strengthen the quality of health care services in Malawi, Tanzania, Swaziland, Uganda, and Liberia.

- » PEPFAR’s HRH Strategy has enhanced HRH programming by increasing the availability, quality, and retention of health care workers, and has resulted in improved delivery of HIV/AIDS services. In FY 2016, PEPFAR supported pre-service training of an additional 33,310 health care workers to strengthen country capacity for delivery of HIV and other health services, totaling more than 200,000 new health care workers in PEPFAR-supported countries to deliver HIV and other health services.
- » PEPFAR is working in more than 10 countries to build their Human Resources Information Systems (HRIS) to increase capacity for health workforce planning. To advance the impact and sustainability of these systems, the HRIS Assessment Framework, developed by the PEPFAR interagency, is being used to standardize metrics to measure system functions and capacity for utilization to inform decision-making.
- » In Tanzania, the PEPFAR interagency is coordinating a multipronged approach to improve the distribution and retention of health care workers by supporting the government to prioritize allocation of 10,000 available new health care worker posts with more than 70,000 requests from across the country.
- » In the Dominican Republic, PEPFAR worked with the MOH to conduct a payroll analysis that revealed approximately 10,000 “ghost workers,” individuals who were receiving salaries but no longer working for the ministry. The country reinvested more than \$6 million into its health sector, using the annual savings from its ongoing payroll cleanup to hire new health workers, increase salaries for doctors and nurses, and significantly raise health workers’ retirement benefits.
- » To assess HRH needs for implementation of Test and START guidelines and differentiated

service delivery models, PEPFAR developed and applied rapid HRH facility assessments across 195 sites in Malawi, Zambia, and Ethiopia to identify optimal HRH staffing needs to reach the 90-90-90 goals.

APPENDIX V: Evaluation Standards of Practice

Background

In January 2014, PEPFAR issued the PEPFAR Evaluation Standards of Practice (ESOP), and in September 2015 version 2 was released. The second document retained the original 11 standards of practice (SOP) and also provided operational guidance regarding requirements for annual planning (COPs/ROPs) and reporting processes (Annual Program Results [APR]). PEPFAR defines evaluation as the “systematic collection and analysis of information about the characteristics, outcomes, and impact of programs and projects.” All PEPFAR evaluations, regardless of the implementing agency, partner, or type of evaluation, must adhere to these standards.

The Standards of Practice (SOP)

The 11 evaluation standards were identified and defined by the Evaluation Working Group (EWG), an interagency body of evaluation representatives from PEPFAR implementing agencies. The primary roles of the EWG are to set evaluation standards, orient the field in implementation of the ESOP, and provide technical assistance and guidance as needed. The 11 standards are listed below, and full descriptions can be found in the ESOP cited above.

1. Engage stakeholders.
2. Clearly state evaluation questions, purpose, and objectives.
3. Use appropriate evaluation design, methods, and analytical techniques.

4. Address ethical considerations and assurances.
5. Identify resources and articulate budget.
6. Construct data collection and management plans.
7. Ensure appropriate evaluator qualifications and independence.
8. Monitor the planning and implementation of evaluations.
9. Produce quality evaluation reports.
10. Disseminate results.
11. Use findings for program improvement.

Methods and Findings

This report includes a presentation of overall findings from evaluation reports submitted into PEPFAR’s Data for Accountability, Transparency and Impact Monitoring (DATIM) system for FY 2016. FY 2016 is the third year for submission of evaluation results. Some evaluations started in years prior to the release of the ESOP in 2014, and version 2 of the ESOP stipulated that a published manuscript could not substitute for a formal evaluation report. As such, some flexibility was allowed for evaluations that began before the release of the standards or for which a published manuscript rather than a formal evaluation report was submitted. Agencies reviewed, verified, and

assessed the evaluation data submitted for PEPFAR’s 2016 APR process, each using an agency-specific process.

Results from the agencies were aggregated for this report. Agency-specific reports will be released at a later date.²²

Determining adherence to the standards is dependent on a review of a final evaluation report, with the use of an “adherence checklist” to answer a series of “review criteria” associated with each standard. Responses to these criteria include Yes, Partial, and No. For composite standards based on several questions, if all answers were “yes,” the final score was “yes”; if all were “no,” the final score was “no”; and any other combination of answers was given a “partial” score. The data presented were verified to assess completeness and confirmed to be completed during the reporting period and meet the PEPFAR ESOP definition of an evaluation.



■ Students in Nairobi, Kenya.

²² Due to the extensive data cleaning and verification process that occurs after the annual reporting deadline (Nov. 15, 2016), the actual number of completed evaluations presented in this report may be different from what is included in subsequent reports.

Submissions for the FY 2016 APR reflect the completion of 94 (28 USAID + 66 CDC) PEPFAR evaluations during FY 2016. These evaluations were conducted in 20 countries, with the highest single country completing 16 evaluations. Neither the U.S. Department of Defense nor HRSA reported completed evaluations for FY 2016, but do have ongoing evaluations and will report adherence checklists in the future once evaluations are completed.

Adherence to Standards

FY 16 evaluations were found to have high adherence to four of the 11 SOPs and midlevel adherence to one of the standards. The six standards that require improvement are SOP 5 (articulate budget), SOP 7 (ensuring appropri-

ate evaluator competencies and qualifications), SOP 8 (monitor the planning and implementation of the evaluation), SOP 9 (producing quality evaluation reports), SOP 10 (dissemination of results), and SOP 11 (use findings for program improvement).

Reporting and adherence to standards improved in several ways between FY 15 and FY 16 (Figure 46). Country teams improved reporting by the APR deadline from 26 completed reports with checklists in FY 15 to 94 in FY 16. The total number of evaluations fully meeting an SOP (score = Yes) increased for all standards. Improvements between FY 15 and FY 16, by percentage for a score of “Yes,” occurred across several standards: adherence to SOP 3 (appropriate evaluation design, methods,

and analytical techniques) increased from 73 percent (19) to 89 percent (84); SOP 4 (ethical considerations) improved from 58 percent (15) to 74 percent (70); SOP 5 (articulate budget) grew from 12 percent (3) to 18 percent (17); SOP 6 (data collection and management) improved from 85 percent (22) to 94 percent (88); and SOP 7 (ensuring appropriate evaluator competencies and qualifications) grew slightly from 15 percent (4) to 17 percent (16).

Dissemination of Results

Overall, 89 percent of the FY 16 evaluations have been publicly disseminated, which is an increase from FY 15. Looking more specifically, the evaluation dissemination within 90 days is not as high (SOP 10). Agencies are working to further increase timely dissemination of results on publicly available websites.

Discussion

Since the evaluation report, rather than a completed manuscript, is the source used to assess adherence to standards, evaluation scores can be attributed to the thoroughness of the report rather than the actual quality of the evaluation itself. In addition, the adherence checklist contains criteria not typically included in published manuscripts. The majority (65 percent) of evaluations reviewed were scored using published manuscripts rather than final evaluation reports, which explains the lower scores.

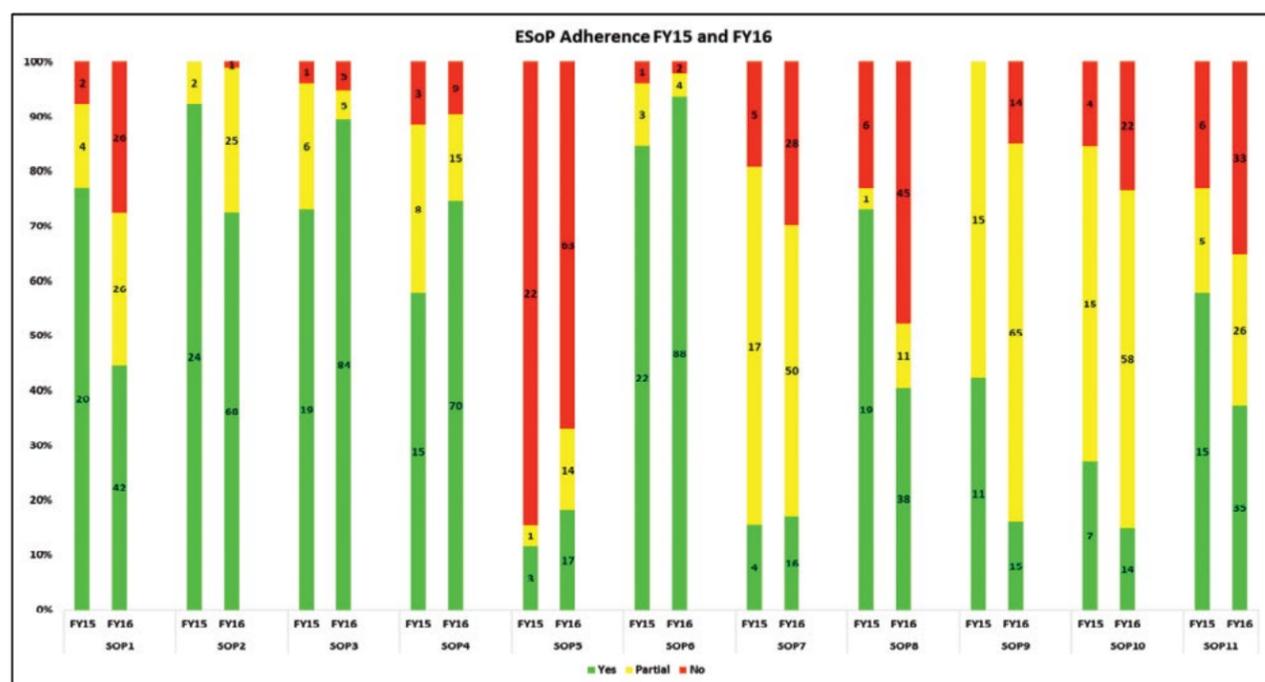
The EWG and agencies will continue to provide technical assistance and support to field teams to improve areas that fall short of high adherence. Overall adherence scores are expected to increase in subsequent years as: 1) ESOP will be used to inform all newly started evaluations, 2) implementing partners become more familiar

with the standards and improve evaluation reporting, and 3) agencies work to amend policies to adhere to the ESOP requirement of having a final report, in addition to any manuscripts that do not typically support demonstration of adherence to ESOP.

The EWG will continue to work closely with headquarters and country teams to improve the quality of evaluations and expand the availability of results. Existing gaps are being actively analyzed to assess how to best fulfill existing policies and requirements, and whether any need special consideration or modification. The EWG is pursuing ways to increase engagement of headquarters and country level staff with evaluators and working to re-emphasize these SOPs to all implementing partners to ensure improved adherence.

Agencies are integrating more formal evaluation requirements, tying the standards into contracts, and monitoring efforts as evaluations conducted are increasing. These results also highlight the need to improve public dissemination of reports and findings to reach 100 percent. The EWG is reviewing agency policies and practices to ensure they are consistent and share the same ultimate objective of public access. This year, greater attention will be focused on more strategic evaluation portfolios that are well-planned, answer existing evidence gaps, and are linked to country priorities and the PEPFAR goal of reaching 90-90-90. At this time of expanded access to age- and sex-disaggregated program data down to the site level, the limited evaluations will not be utilized to inform and improve programming, but to validate program data.

Figure 46. Report Adherence to Evaluation Standards of Practice – FY 2015 and FY 2016



FIGURES & TABLES

PAGE FIGURE NUMBER

- 4 **Figure A.** PEPFAR — Achieving Greater Impact on Current Investments
- 5 **Figure B.** PEPFAR — Latest Results, 2016
- 7 **Figure C.** New Infections Have Declined 51–76% Since the Start of PEPFAR
- 7 **Figure D.** Progress to 90-90-90 in Adults
- 10 **Figure E.** Youth Bulge in Sub-Saharan Africa
- 21 **Figure 1.** PEPFAR’s 3 Guiding Pillars — Delivering an AIDS-Free Generation with Sustainable Results
- 22 **Figure 2A.** Achievement Toward 90-90-90 — Results from 2016 PHIA in Malawi, Zambia, and Zimbabwe
Figure 2B. Progress to 90-90-90 in Adolescents and Young Adults (15–24 years old)
- 23 **Figure 3.** Incidence Declines Since 2003 — Results from 2016 PHIA in Malawi, Zambia, and Zimbabwe
- 25 **Figure 4.** HIV Disease Burden — Zambia
- 25 **Figure 5.** Zambia — 80 Percent National ART Coverage by the End of 2017
- 26 **Figure 6.** Critical Intervention Points to Prevent HIV Among Females
- 27 **Figure 7.** Viral Load Suppression Among HIV-Positive Individuals by Province — Zambia
- 29 **Figure 8.** New HIV Infections Averted by Getting on the UNAIDS Fast-Track — 2016-2030
- 30 **Figure 9.** AIDS-Related Deaths Averted by Getting on the UNAIDS Fast-Track — 2016-2030
- 31 **Figure 10.** Global Trends in New HIV Infections — 1990–2015
- 32 **Figure 11.** Percent Change in New Adult HIV Infections in Select Countries — 2000–2015
- 33 **Figure 12.** Percent Change in New Pediatric HIV Infections in Select Countries — 2000–2015
- 33 **Figure 13.** Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence in Zambia

PAGE FIGURE NUMBER

- 34 **Figure 14.** Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence in Rwanda
- 34 **Figure 15.** Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence in Malawi
- 35 **Figure 16.** Large Increase in Young Women Ages 15-24 Since the Beginning of the Epidemic
- 36 **Figure 17.** Understanding the Youth Bulge: Why Are There More Adolescents Than Ever Before?
- 36 **Figure 18.** Youth Bulge in Mozambique
- 38 **Figure 19.** Modeling New HIV Infection Trends in Sub-Saharan Africa, with and without PEPFAR and the Global HIV/AIDS Response
- 40 **Figure 20.** Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence — Kenya
- 40 **Figure 21.** Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence — Tanzania
- 41 **Figure 22.** Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence — Botswana
- 41 **Figure 23.** Trends in New HIV Infections, AIDS Mortality, and HIV Prevalence — Uganda
- 44 **Figure 24.** Viral Load Suppression Among HIV-Positive Individuals by Province in Zambia and Zimbabwe
- 46 **Figures 25A and 25B.** Adoption of WHO Guidelines Recommending a Test and START (Treat ALL) Strategy — Progress from 2015 to 2016
- 48 **Figure 26.** Supporting Two Patients for the Price of One
- 49 **Figure 27.** HIV Lifecycle in Sub-Saharan Africa: Matching Core Intervention to Populations for Maximal Impact
- 49 **Figure 28.** Cumulative Trends of Persons Living with HIV, Sub-Saharan Africa — 1990–2015
- 50 **Figure 29.** Host Country National Data, Percent Increase of People Receiving ART, (2004–2015) PEPFAR Supported Countries-Africa

PAGE FIGURE NUMBER

- 51 **Figure 30A.** Progress Toward 90–90–90 in Adolescence and Young Adults in Zimbabwe, Malawi, and Zambia
Figure 30B. Viral Load Suppression in the Community by Age Groups
- 52 **Figure 31.** Trends in ART Coverage, Select Countries, 2010–2015
- 53 **Figure 32.** Model of the Estimated Number of Infections Averted by Condom Scale-Up
- 58 **Figure 33.** PEPFAR PMTCT Regimens: Ensuring the Most Effective Regimens to Save Mothers and Ensure Babies Are Born HIV Free
- 59 **Figure 34.** PEPFAR Annual VMMC Results, FY 2009–2016
- 60 **Figure 35.** PEPFAR Cumulative VMMC Results, FY 2009–2016
- 60 **Figure 36.** Number of Circumcisions by Priority Age Band and Priority Country, FY 2016
- 62 **Figure 37.** New HIV Infections in Adolescent Girls and Young Women
- 63 **Figure 38.** Cycle of HIV Transmission
- 64 **Figure 39.** Breaking the Cycle: Why Girls and Women Are Critical to Breaking the HIV Transmission Cycle
- 65 **Figure 40.** PEPFAR Public-Private Partnerships
- 72 **Figure 41.** Orphan Prevalence by Age Group in Kenya, Lesotho, and Zambia
- 76 **Figure 42.** Average SID Score Across All Responding Countries, by SID Element
- 88 **Figure 43.** Vietnam Projected Scale-Up of Domestic ARV Financing
- 95 **Figure 44.** Increasing PEPFAR Resources to Local, Indigenous Partners — CDC Experience
- 99 **Figure 45.** Global Trends in the Estimated Number of Deaths Caused by TB and HIV (millions), 2000–2015
- 105 **Figure 46.** Report Adherence to Evaluation Standards of Practice — FY 2015 and FY 2016

PAGE TABLE NUMBER

- 42 **Table 1.** Implementation Timeline of HIV Impact Assessments
- 43 **Table 2.** Results of PEPFAR Population-Based HIV Impact Assessments
- 71 **Table 3.** Accelerating Children’s HIV/AIDS Treatment (ACT) Initiative
- 80 **Table 4.** Publicly Announced Pledges to the Global Fund
- 83 **Table 5.** Reported PEPFAR Expenditures by Program Area for Core Programs, 2015 Fiscal Year (October 2014 to September 2015), Millions US
- 86 **Table 6.** Unit Expenditures by Program Area for Core Programs
- 94 **Table 7.** Historically Black Colleges and Universities (HBCUs) Receiving PEPFAR Funding

GLOSSARY

ACT	Accelerating Children's HIV/AIDS Treatment	MCC	Millennium Challenge Corporation
AGYW	Adolescent Girls and Young Women	MOH	Ministry of Health
ART	Antiretroviral Treatment	MSM	Men who have Sex with Men
ARV	Antiretroviral Medications	NIH	National Institutes of Health
CDC	Centers for Disease Control and Prevention	OVC	Orphans and Vulnerable Children
COP	Country Operational Plan	PEPFAR	U.S. President's Emergency Plan for AIDS Relief
DREAMS	Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe	PHIA	Population HIV/AIDS Impact Assessment
DSD	Direct Service Delivery	PLHIV	People Living with HIV
EA	Expenditure Analysis	PMTCT	Prevention of Mother-to-Child Transmission
FBO	Faith Based Organization	PPP	Public-Private Partnerships
FY	Fiscal Year	PrEP	Pre-exposure prophylaxis
GAVI	The Vaccine Alliance	PRRR	Pink Ribbon Red Ribbon
GBV	Gender Based Violence	ROP	Regional Operational Plan
Global Fund	The Global Fund to Fight AIDS, Tuberculosis and Malaria	TA-SDI	Technical Assistance-Service Delivery Improvement
HHS	Department of Health and Human Services	TB	Tuberculosis
HIV	Human Immunodeficiency Virus	UNAIDS	Joint United Nations Programme on HIV/AIDS
HRH	Human Resources for Health	UNICEF	The United Nations Children's Fund
HRSA	Health Resources and Services Administration	USAID	United States Agency for International Development
HTS	HIV Testing Services	VMMC	Voluntary Medical Male Circumcision
LCI	Local Capacity Initiative	WHO	World Health Organization
LGBT	Lesbian Gay Bisexual Transgender		



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U.S. President's Emergency Plan for AIDS Relief

**U.S. Department of State
Office of the U.S. Global AIDS Coordinator
and Health Diplomacy**

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