

Without PEPFAR, Africa's children at extreme risk

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Abstract.

PEPFAR is a landmark foreign health policy of the United States of America. It is widely recognised for outstanding success in combating the HIV pandemic, saving 26 million lives through programs that include over a billion visits for HIV services, 20·6 million people receiving antiretroviral medicine, and evidence-based prevention programs and technologies. Less well known are PEPFAR's lifesaving impacts for children across sub-Saharan Africa, including decreasing child-led households, supporting orphaned and vulnerable children, protecting girls from sexual abuse, and providing childhood HIV prevention, care, and life-saving treatment. This paper reviews UNAIDS, UNICEF and VACS estimates, SPECTRUM model and PHIA data, synthesises PEPFAR reports, Country Operating Plans, conducts in-depth interviews with State Department and program leads, searches PubMed for experimental and quasi-experimental evidence of program effectiveness, and reviews economic and policy studies and reports, to examine PEPFAR's role in protecting children. We assess childhood HIV risks; HIV treatment and prevention gaps; and PEPFAR's effectiveness and sustainability potential for children. We further examine PEPFAR's associations with economic, health, and educational benefits that protect societies from destabilization. We find that, despite progress, childhood risks in the region remain acute: one in five girls experiences childhood rape or sexual assault,¹ one in ten children is orphaned; and one child under 15 dies from AIDS every seven minutes.² PEPFAR programs, frequently delivered through faith- and community-partnerships, include ensuring 7·8 million babies born HIV-free, providing care for 13 million orphaned and vulnerable children, and protecting 10·3 million girls from sexual abuse and exploitation. PEPFAR policy investments show collateral benefits for both the USA and Africa, by strengthening health security, geopolitical stability, and trade, as Africa's population expands to one in every four people in the world, and to a billion children by 2050. Without stable PEPFAR provision, models predict a million new child HIV-infections, nearly half a million additional child AIDS deaths, and 2·8 million children additionally orphaned by AIDS by 2030. We find that now is the time to sustain the gains and accelerate progress through 2030.

Introduction

After twenty years, the nightmares have returned. When I fall asleep, I'm back in the early 2000's, as a social worker at Cape Town Child Welfare Society (LC). AIDS was decimating an entire generation of parents; (Fig 1A) I found foster homes for children whilst their mothers lay dying on blankets in their shacks. I took trafficked thirteen-year-old girls for HIV testing, knowing what the results would be. I tried to explain to six-year-olds why everyone who had ever cared for them was now dead.

Then, eight thousand miles away, the USA demonstrated the power of visionary global leadership. In January 2003, President Bush announced the President's Emergency Fund for AIDS Relief (PEPFAR), an act of compassion translated into the Congressional action, the US Leadership Act Against HIV/AIDS, Tuberculosis, and Malaria.³ Focused in sub-Saharan Africa as the centre of the HIV pandemic,⁴ PEPFAR has had exceptional long-term success, including the creation of supply chains and health systems that have brought lifesaving antiretroviral medication to 20·6 million people at less than 1% of the per-patient cost in 1993; rapid adoption

of effective biomedical and behavioural prevention strategies in response to new evidence, including 2·5 million new initiations of PrEP⁵; the scale-up of highly-effective prevention of perinatal transmission to maternity services across the continent, enabling the births of 7·8 million babies without HIV-infection,⁵ and a legislated earmark of 10% of PEPFAR funding that has supported over 13 million orphaned and vulnerable children.⁶

For 20 years, PEPFAR ensured stability and impact through strong bipartisan support⁷, with 5-year reauthorisations in 2008, 2013, and 2018 that allowed the US to expand its protection of children: preventing violence against girls, supporting victims of childhood sexual abuse and exploitation, providing psychosocial care in the most deprived environments and preventing HIV-infection for orphaned and vulnerable children. During this same period, PEPFAR has prevented and responded to child sexual abuse, exploitation and trafficking for over 10 million girls ages 10-24, through health facilities and communities.

PEPFAR's two-decade investment has been world-changing. Our review of PEPFAR annual reports from 2005-2023^{2,7} shows provision of HIV testing, treatment, and prevention services through over 1 billion child and adult visits. However, PEPFAR has had three recent setbacks. First, only a one-year reauthorization was approved in 2023, due to concerns over whether PEPFAR funding had been used to provide termination of pregnancy, which is legally prohibited for all USA foreign assistance.⁸ Second, in January 2025, PEPFAR's auditing of providers identified a single violation of this law: in Mozambique (where abortions are legal) four Ministry of Health nurses had performed 21 abortions, during a period of substantial civil violence. This was detected through PEPFAR's strong compliance oversight, reported immediately, and corrective action taken. In-depth interviews reported new PEPFAR measures to reduce risk of future violations, including individual, annual signed attestations regarding compliance with US government laws by all staff providing any PEPFAR clinical service, and expanded Country Operating Plan (COP) guidance, technical considerations, and COP approval memos that outline US law prohibiting use of US funds for abortions.

Third, the new administration ordered a 90-day pause on US foreign assistance, and approved a waiver allowing life-saving HIV treatment to continue, although enactment of that waiver has been severely challenged by removal of USAID staff and frozen funding systems.⁹

Our report focuses on a long-term solution for continuing to save lives: urgent, given PEPFAR's one-year reauthorization expires in March 25, 2025.² PEPFAR must focus on communities and ensure continued access to HIV treatment, prevention of perinatal transmission, and of HIV and sexual violence amongst orphaned and vulnerable children and girls, along with increased Congressional oversight and accountability of the program. Reauthorization is needed to ensure and improve efficiencies, consistencies, strict enforcement of the USA's foreign assistance legislation; and that this policy strengthens prosperity, safety, and strength for the USA.⁸

As the future of PEPFAR hangs in the balance, this paper examines evidence on its value for children. It evaluates data on impacts for child health and wellbeing, examines effectiveness and reach of pediatric and adolescent prevention and treatment response; and proposes critical considerations for transitioning to country-led sustainability for PEPFAR's child-focused

programming. We assess impacts for Africa and the USA of no reauthorization, or of another short-term reauthorization. With Africa's population growing to 1 in 4 people worldwide¹⁰ (Fig 1B) we also consider research showing collateral benefits of PEPFAR for the USA and Africa on health security, trade, and geopolitical stability, and new evidence suggesting that other countries such as China are poised to overtake the trans-continental partnership that PEPFAR's diplomacy has built.

Approach

First, we aimed to identify risk levels for children in sub-Saharan Africa. We reviewed data on children, orphanhood, sexual abuse and HIV, using UNAIDS, UNICEF and Violence Against Children Survey (VACS) estimates. We further report estimates of numbers and trends in orphanhood from all causes that UNAIDS produces annually using the Spectrum model. These use established estimates of orphanhood based on mortality and fertility rates,¹¹⁻¹³ modified to include effects of treatment on parental survival and fertility-inhibiting effects of HIV infection.¹⁴ Additionally, we extracted HIV seroprevalence among orphaned and non-orphaned children using data from Population-based HIV Impact Assessments (PHIA) from 14 high burden countries that had sampled children under age 18,¹⁵ to generate pooled HIV seroprevalence estimates amongst children by orphanhood status.

Second, we describe UNAIDS 2023 data comparing distributions of HIV cases with HIV deaths in children as a share of total HIV cases and deaths globally; examine the numbers and percentages of children aged 0-14 and adolescents aged 15-19 living with HIV who are virally unsuppressed; and describe options for strengthening prevention of perinatal HIV transmission.

Third, we examine PEPFAR's programming models for orphans and vulnerable children (OVC), prevention of and response to sexual abuse against children and adolescents, strengthening HIV-viral load suppression in children and HIV-prevention for girls, through synthesizing PEPFAR reports, and in-depth interview data from 15 program leads within the US State Department, from OVC, DREAMS, and pediatric HIV programming. Fourth, we assessed evidence for effectiveness and reach of these programs. To do this, we used PEPFAR Country Operating Plans (COPs) and COP Guidance to identify approved interventions and then conducted searches for experimental and quasi-experimental evidence for these interventions using both PubMed and reviews for the INSPIRE Strategies for Ending Violence Against Children,¹⁶ (Table 2). Fifth, we explored pathways to long-term sustainability for PEPFAR's child-focused programming, through reviews of PEPFAR and think-tank reports. Sixth, we examined evidence on the extent to which responses to HIV lead to health security, economic, educational, trade, and diplomatic benefits, using published studies, policy, strategy, and economic reports, including government and government-affiliated reports. Finally, we review epidemiological and resilience research to outline child-focused HIV impacts of a world without PEPFAR, as well as broader impacts for the USA and Africa of short-term (1 year) versus long-term (5 year) reauthorizations.

PEPFAR: Addressing HIV Risks for Children and Adolescents

Growing threats. Orphanhood from any cause, child sexual abuse and childhood HIV-infection are not only moral imperatives to address, they are also PEPFAR priorities due to associations with increased HIV, sexually transmitted infections, mental health, substance abuse and chronic disease.¹⁷ We reviewed new data to determine burden, levels of risk, associations with HIV/AIDS, and outcomes for children living with HIV. Findings show high epidemiologic burden, and that orphanhood and child sexual abuse would escalate without PEPFAR.

Before PEPFAR spread brought antiretrovirals to Africa, AIDS had killed over 20 million people, mostly parents¹⁴, with life expectancies dropping into the 40s and 50s in several nations (Fig 1A). After parental death, children remain orphaned for their lifetime, although they are only counted until age 18. In sub-Saharan Africa the number of children orphaned by AIDS reached over 14 million in 2010, and gradually decreased to 10·5 million children in 2023, as effective HIV treatment became widely available and parents' lives were saved.¹⁸

However, both AIDS-orphanhood and other causes of orphanhood are increased by population growth and other risks to parental death. Examination of UNAIDS Epidemiological Estimates show substantially higher rates of all-cause orphanhood in Sub-Saharan Africa than previously recognized. In 2023, over 58·5 million children (95% confidence interval (CI): 56·3m,61·2m) -one in ten children in the region- had experienced the death of a mother, father, or both parents (Fig. 2A). This includes children orphaned by AIDS, epidemics, war, disasters, and other causes of parental death. The 21 nations with PEPFAR country offices are home to 45·4 million orphaned children, – 77·6% of the total (Table 1, Fig 2B). Household HIV-testing in 14 high-burden countries¹⁹ (Fig. 2D) shows HIV-prevalences of 0·48% (95% Confidence Interval (CI) 0·44,0·53) among children whose parents are both living, rising to 2·6% (2·3,3·0) among paternally orphaned children, 4·5% (3·9,5·1) amongst maternally orphaned children, and 6·8% (5·7,8·1) amongst doubly-orphaned children, (Fig. 2D).

Levels of sexual violence are also high throughout the region. The first global monitoring of sexual violence against children found that 22% of girls in Southern and Eastern Africa experience rape or sexual assault by the time they turn 18.¹ An analysis using 17 Demographic and Health Surveys and AIDS Impact Surveys found increased sexual violence amongst paternally orphaned children (Odds Ratio (OR) 1·36, $p \leq 0·01$) and doubly orphaned children (OR 1·47, $p \leq 0·05$).²⁰ Kenya's Violence Against Children survey²¹ found orphaned girls at elevated risk of lifetime rape or sexual assault, at 29·4% (24·5%,34·3%) amongst non-orphaned girls, rising to 35·2% (24·7%,45·7%) for singly-orphaned girls, and 50·9% (32·6%, 69·2%) for doubly-orphaned girls (Fig 2D). Childhood sexual abuse increases risks of HIV infection, both as a direct result of sexual violence, and through long-term impacts including trauma, low self-esteem, and sexual exploitation.²²

Sub-Saharan Africa is home to 89% of children living with HIV globally,²³ and there are marked disparities in HIV outcomes between children and adults. Analyses of UNAIDS viral load suppression data²⁴ find an estimated 1·5 million children (1,006,000 aged 0-14) and

adolescents (670,000 aged 15-19) living with HIV globally are virally unsuppressed, with elevated risk of childhood death (Fig. 3B). Whilst 73% of adults living with HIV are virally suppressed, this is reached by only 48% of children aged 0-14 years, and only 55% of adolescents aged 15-19 years.²⁴ In 2023, children comprised 3% of all HIV cases globally, but 12% of AIDS-related deaths (Fig 3A).²⁴

Faith and community partnerships

African faith leaders, and faith-based organizations (FBOs) have been core PEPFAR partners since its inception in 2003.²⁵ Faith communities often have a longstanding, trusted community presence, access to families, and deep knowledge of social networks. In most high HIV-burden countries, 85-95% of the population considers faith very important to them.²⁶ FBOs, faith communities, and local communities identify children and adolescents living with HIV, link them to life-saving treatment, care for orphaned and vulnerable children, and protect girls from sexual abuse.²⁷ Faith- and community-led programs evaluated through PEPFAR's Faith and Community Initiative²⁷ include Maliaka and Destiny Houses, co-location of HIV service sites at religious venues, the Baby Shower model of congregational testing,²⁸ Faith Matters!, and SASA! Faith²⁹ (Table 2). In recipient countries, local government, community, and faith sector collaborations help strengthen sustainability of PEPFAR's programming for children.²⁵

PEPFAR programming protects children and adolescent girls

Within PEPFAR, three pioneering programs work closely together to protect children and girls. In 2006, Congress mandated that at least 10% of the PEPFAR budget supports an Orphaned and Vulnerable Children (OVC) program, including healthcare, education, psychosocial support, and protection for children affected by HIV/AIDS (Figure 3A).^{30,31} In 2014, PEPFAR's launched the DREAMS model, in recognition of doubled rates of HIV infections in girls compared to boys.³² DREAMS combats drivers of incident HIV through an evidence-based package addressing structural, behavioural, and biomedical risks (Figure 3B). To close disproportionate gaps in pediatric treatment and prevention, PEPFAR launched the Accelerating Progress in Pediatrics and PMTCT Initiative in 2022. We examine these programs' evidence base, reach, and sustainability potential.

PEPFAR orphaned and vulnerable children's programs engage with communities and local partners, including faith and traditional leaders (Fig 4A), reaching over 13 million orphaned and vulnerable children in total, and including children living with HIV and child survivors of sexual abuse and exploitation.^a OVC preventative programs reduce HIV-infection and violence through programs evaluated in randomized or quasi-experimental evaluations,³³⁻³⁸ with several in early stages of transitioning support to country governments (Table 2). They also address early identification of sexual abuse: all staff receive training in safeguarding, mandatory reporting, and referrals, including into OVC comprehensive services, which provide tailored HIV and sexual abuse response services³⁹ (Table 2), e.g. economic strengthening,⁴⁰

^a Based on annual program reach 2006-2024, with scale-up over 2006-2007.

education support, building parenting skills, and HIV care and treatment. Graduation occurs once stability across eight health and well-being domains are achieved.

PEPFAR's DREAMS program prevents drivers of HIV-infection for girls, including sexual violence, poverty, and inadequate access to education. It is supported in high HIV prevalence communities in 15 countries with local faith-based and community-based partners (Fig. 4B). OVC and DREAMS programs are also uniquely positioned to accelerate uptake of evidence-based HIV prevention such as long-acting injectable pre-exposure, post-exposure prophylaxis, and condoms, through trusted services for children at risk of HIV and sexual violence (Table 2). Crucially, these reduce risk of HIV acquisition to mothers and children during pregnancy and breastfeeding.⁴¹

PEPFAR programming for children living with HIV supported lifesaving medication for 556,000 children in 2024, in addition to prevention of perinatal transmission of HIV across 20 countries,⁵ including fragile countries such as Democratic Republic of Congo, where 26% of children born to mothers living with HIV were infected through pregnancy, birth or breastfeeding in 2023.²⁴ PEPFAR's Accelerating Progress in Pediatrics and PMTCT Initiative in 20 PEPFAR countries has led to a 52% increase in numbers of children tested, and an increase in viral load suppression over three years.⁴² These successes have been driven by the introduction of dolutegravir for all children living with HIV, and through the groundbreaking PEPFAR-supported Vatican Initiative, which fast-tracked the development of paediatric HIV formulations.⁴³ PEPFAR supports programs with strong evidence of improving childhood viral load suppression, such as Zvandiri^{44,45} and Operation Triple Zero.⁴⁶

Across the three programs there is a strong focus on prevention and healing for child sexual abuse, trafficking and exploitation, as required in other US legislation such as the Women, Peace and Security Act of 2017: all children in PEPFAR programs ages 10-14 receive child-sensitive knowledge about HIV and sexual abuse risks, and all girls (ages 10-24) are assessed for risk. Services to support survivors and prevent revictimization include mentorship, psychosocial support, social asset building, and pre-exposure prophylaxis,^{47,48} education-focused economic strengthening (e.g. microfinance), and sexual violence prevention for boys and girls.^{29,35,36,49,50} (Table 2).

These programs also support long-term sustainability of PEPFAR's investments. Firstly, they build resilience and reduce children's lifetime risk of HIV. Secondly, they strengthen sustainability of government's child welfare systems; for example through training local social workers. Thirdly, they use Violence Against Children Surveys to establish national government-led, multi-sector sexual violence prevention action plans in 16 countries in the region,⁵¹ embedding child sexual abuse and trafficking prevention within government services.

Towards a decade of establishing sustainability for children.

Transformative country leadership, expanded partnerships, and innovations to simplify services and reduce costs, can promote HIV response sustainability. PEPFAR's 2024 Vision for Sustainability includes country-led plans that catalyse political, programmatic, and financial progress, aligned with the UNAIDS-developed HIV Response Sustainability Roadmap tools.⁵²

These include: predicting, preventing, detecting and responding to new infections; sustaining HIV viral load suppression; reaching targets for reducing drivers of HIV, including sexual abuse; identifying and supporting orphans and vulnerable children; and preventing HIV amongst adolescent girls.

PEPFAR's 2023 Country Operational Plan Guidance,⁵³ and UNAIDS Sustainability Roadmap Primer⁵⁴ outline country-led processes: 1) co-investment policy, 2) population viral load suppression and reducing new HIV infections 3) strengthening national systems and 4) creating efficiencies through simplification and differentiation. PEPFAR countries are developing roadmaps for implementing their unique HIV Sustainability Roadmap Plans by June 2025, and continuously improving sustainability indicators through 2030. The Guidance outlined in the 2024 PEPFAR Report to Congress⁴³ provides an accountability framework, measures for tracking, and a co-investment policy. The HIV Response Sustainability Roadmap outlines key indicators of political will (incorporating management, coordination and stewardship); enabling laws / policies; equitable financing; HIV treatment & prevention services; and health systems.

Readiness for HIV sustainability in PEPFAR countries was assessed in 2023,⁵⁵ finding areas needing substantial improvement to maintain PEPFAR's lifesaving gains. The assessment found progress for HIV policy measures, and increasing national provision of HIV services. However, the 21 countries with PEPFAR country offices are mostly in extreme poverty and have high debt, resulting in gaps in domestic financial commitments to health, and in basic health services and systems. Of these nations, 12 met the 60% benchmark for HIV policy commitments. However, only one met the 15% African Union commitments in the 2001 Abuja Declaration for domestic health investments;⁵⁶ none met the minimum 60% benchmark for health systems and basic health services to allow integration of HIV services. Only 5 countries met the <-65% benchmark for donor share of government HIV funding.

The new decade of action

Uniting global and domestic partners, including philanthropic and charitable donors, around a new 'decade of action' for transitioning to sustainability beyond 2030 can help ensure global success in ending AIDS. The Coalition for Children and Adolescents Affected by HIV & AIDS recommends closing investment gaps for children and adolescents via community-led models that are supported by annual incremental increases in domestic funding, integration of services, and mobilizing funding for domestic and global donors beyond the health sector.⁵⁷ This new decade of action could include matching grants for community-led models, through which global funding could be tied to each country's progressively increasing domestic funding for the health sector, consistent with the Abuja commitments. Integration of cost-effective community-led models for children and adolescents, including faith- and community-led models,^{58 59} would reduce child sexual abuse and trafficking, protect orphaned children, and sustain paediatric HIV treatment and care. Moreover, a 10-year approach that protects children and families can safeguard global health security, as in the next 25 years half of all children and adolescents (0-19) in the world will live in Africa.¹⁰

PEPFAR: Collateral benefits for children and families

Economic, educational, and health benefits.

Evidence suggests that PEPFAR's HIV investments have brought economic, educational, and health benefits for children and families beyond HIV. Econometric studies using difference-in-difference approaches found a 13% increase in population-level male employment in 10 PEPFAR focus countries, compared to countries receiving little/no PEPFAR support.⁶⁰ This increased employment alone produced economic returns equalling half of PEPFAR's investments. Another study compared 90 countries receiving PEPFAR support from 1990-2018 with 67 countries receiving no/little PEPFAR support. It found substantial increases in gross domestic product per capita growth rates, and highly significant educational benefits through increased schooling for both girls and boys,⁶¹ strengthening PEPFAR recipient nations as established US trading partners.² Furthermore, PEPFAR countries showed a 20% reduction in all-cause mortality,⁶² 25% reduction in maternal mortality, 35% reduction in child mortality, and increases of 8-11% in childhood immunizations for measles, DPT, and hepatitis B.⁶³

A recent economic analysis assesses returns on a core package modelled on PEPFAR's OVC and DREAMS programs of economic strengthening, evidence-based parenting programs, and child and youth-friendly health services in Kenya. Findings showed that for investments of 200 million dollars over ten years, macro-economic returns exceeded 900 million dollars through increased labour market productivity, driven by increased school enrolment, prevention of new HIV infections, child marriages and pregnancies, and an averted 63,000 cases of child physical, verbal and sexual abuse, which are linked to exploitation and trafficking.^{64,65} These substantial returns on PEPFAR investments create domestic resources that can help strengthen country-led sustainability of HIV pandemic responses.

PEPFAR strengthens geopolitical stability, health security, and prosperity for the USA and sub-Saharan Africa.

Sub-Saharan Africa is the only region in the world where the youth and working age population are growing.⁶⁶ This opens new opportunities for accelerating health security, prosperity and stability⁶⁷ in both the USA and sub-Saharan Africa, by harnessing the demographic dividend inherent of a larger working-age population than dependent-age population (Fig 1B). Analyses of Gallup surveys show that PEPFAR investments are strongly and consistently associated with higher public opinion of the US across the world, over 15 years,^{68,69} improving US national security through trusted relationships with allies, increased trade, and strengthened capacity to detect and respond to new epidemics and pandemics.^{68,70}

As a USA foreign policy, PEPFAR investments strengthen strategic diplomacy required to advance such benefits for both the USA and Africa. US goods exports to Africa have increased fourfold from \$6.9bn in 2001 to \$32.1bn in 2024, led by motor vehicles and parts, aircraft, oil and gas field equipment, mineral fuels and wheat.^{71,72} By working together to address challenges and leverage opportunities following the 2022 U.S.-Africa Leaders Summit, bilateral partnerships enabled over \$62 billion in new two-way trade and investment agreements, including in essential minerals, between the U.S and African countries, by December 2024.⁷⁰

Collateral benefits are foundational for protecting geopolitical stability, strengthening health security, and revitalizing partnerships needed to expand transnational trade with Africa, home to nine of the world's fastest growing economies in 2024.⁷³ For example, the PEPFAR-linked growth in economic productivity of nations helps protect families and societies from destabilization and reduces risks of forced migration that follow political and economic collapse. PEPFAR health systems and services also strengthen pandemic preparedness and response, as observed for COVID-19 (Fig 1A), allowing countries to control emerging threats, including trans-border global health security risks such as haemorrhagic fevers.^{68,70}

If the USA chooses an unstable short-term partnership model for health diplomacy in Africa, reports suggest other countries are poised to assume leadership. For example, two recent studies of China's foreign assistance policy^{74,75} show that China has become an important health donor to Africa when measured in project value, with a shifting focus towards infectious diseases. China's investments have also transitioned towards health system strengthening and global health security, and extend beyond health to the majority share of mineral wealth in Africa, such as cobalt, copper, lithium, and manganese, which the USA depends on for phones, electric vehicles, military applications, and satellites.⁷⁶ Recent evidence describes Iran's increased aid to Africa, including to orphaned and vulnerable children, as important for their strategic soft diplomacy.⁷⁷

In other areas in which rival countries have challenged American leadership, US responses have been swift and robust. In the area of strategic diplomacy with Africa, it is important to recognise that if the US stands aside, it will create a vacuum that China is positioned to fill. For example, the US Department of Defense report to Congress in December 2024 highlights China's priorities for expanding satellite navigation systems throughout Africa, including military capacities.⁷⁸ A US commitment now to stability and partnership with Africa presents an opportunity to protect national security, strengthen trade, and advance strategic diplomacy.

Two-way benefits for America's and Africa's children, families, and communities

The 21st Century has seen a shift from country-level challenges to global megatrends, such as COVID-19 and the globalised narcotic trade. Global challenges are also increasingly affecting children at home and abroad. A 2025 Nature Medicine study of children in the USA found a 50% increase in orphanhood. Nearly three million American children have experienced the death of a caregiver.⁷⁹ Leveraging lessons from evidence-based care for orphaned children in Africa can inform increasingly needed solutions for orphaned and vulnerable children in the USA.

Online-facilitated child sexual abuse and exploitation have also risen exponentially, facilitated by widespread internet access. In 2024 a national USA study found that online-facilitated acts doubled rates of rape, sexual exploitation and assault, with 32% of American girls victimised by age 18.⁸⁰ PEPFAR's child-focused models have promoted the development of high-impact, scalable and cost-effective systems, services, and programs that prevent and respond to child sexual abuse, exploitation and trafficking across Africa and the USA, such as No Means No, Families Matter, and Violence Against Children Surveys, which are used to link data to action.

PEPFAR has built capacity of large-scale delivery by faith-based organisations that can be leveraged across both regions.

Evidence suggests three types of support that improve outcomes for children experiencing severe adverse experiences, such as HIV-infection, parental death or childhood sexual trafficking:⁸¹ A consistent, loving caregiver;⁸² medical and mental health care; and economic stability.^{83,84} In all these, reliability and security are essential for children.⁸⁵ The effects of the recent freeze of USAID foreign assistance has shown the extent of child fragility: at the time of writing 205,577 children aged 0-14 are unable to get their next packet of antiretroviral medication, and at least 440,000 pregnant mothers and their babies are unable to access medicine to prevent HIV infection in pregnancy, birth and breastfeeding.⁷¹ No reauthorisation or another short-term reauthorisation of PEPFAR would bring devastating uncertainties and consequences.

Without PEPFAR and strong commitments to sustaining the HIV response, life expectancies will substantially reduce, leaving millions of additional children orphaned (Fig 1A). A new modelling study⁸⁶ shows that without PEPFAR, children in sub-Saharan Africa would face extreme HIV-related health risks, including a million new cases of HIV, 460,000 additional AIDS-related deaths in children, and an additional 2.8 million children orphaned by AIDS in the next five years (Fig 5).

Conclusion: Reauthorise PEPFAR to protect America's and Africa's future.

The findings of this paper lead to one, overwhelming conclusion: that a full, five-year reauthorisation of the USA Leadership Act is critically important for the USA and Africa. PEPFAR brings triple benefits. First, the direct benefits of the programme in saving mothers, fathers and children, protecting orphaned children, and protecting girls from sexual trafficking and abuse; second, the indirect benefits within each country in short and long term economic gains; and third, the reciprocal benefits of soft power: stronger trade partners and geopolitical stability within a context of massive population rise in Africa.

Renewing PEPFAR investments will also extend the USA's most powerful foreign assistance policy in history. Senator Jim Risch highlighted in 2023, 'Through PEPFAR we have helped transform health systems and build foundations for broader health security...and we have saved millions of lives.'⁸⁷ In a global context of shifting power and changing trade patterns, PEPFAR has been shown to consistently elevate public opinion of the USA and supports American opportunities for trade. The CEO of World Relief, said "The U.S. rightly leads the world in providing help, rooted in the faith convictions of many Americans and in our own national interests, building goodwill around the world as rival powers such as China seek influence for their own purposes."⁸⁸

PEPFAR's support in House and Senate has always been guided by a higher calling, and its public health and moral imperative towards its beneficiaries have not changed. Now is the time to capitalise on unified leadership, and ensure prosperity, security, and peace for the USA and for Africa.

Figure Legends

Figure 1: Past and future demographic profiles in Africa. Figure A shows trends in life expectancy at birth in 8 countries in sub-Saharan Africa from 1980 through 2023, reflecting reductions linked to the HIV-AIDS pandemic which rebounded following the launching of PEPFAR. Life expectancy again fell in 2019 linked to the COVID pandemic and rebounded with its resolution. Figure B shows total population trends and projections from 1950 through 2100 by select global regions, with only Africa showing continued projected growth (Source: World Population Prospects 2024).

Figure 2: Trends in all-cause orphanhood in sub-Saharan Africa, 2022 (A), Distribution of orphanhood in sub-Saharan Africa shows 77·6% of orphans in countries with PEPFAR country offices (B) shown by white circles); and association of orphanhood with increased sexual abuse (source: Kenya Violence Against Children Survey Report, 2012) (C), and with increased HIV prevalence (D, using Population-based HIV Impact Assessment survey data from 14 countries (Cameroon 2017, Cote d'Ivoire 2017, Eswatini 2017, Ethiopia 2018, Kenya 2018, Lesotho 2017, Malawi 2016, Namibia 2017, Nigeria 2021, Rwanda 2019, Tanzania 2017, Uganda 2017, Zambia 2016, Zimbabwe 2016), normalized using biomarker weights within each survey, calculated weighted proportion of orphans by type and pooled them across surveys to give an estimate representative across countries, then calculated weighted HIV prevalence by orphanhood group pooled across surveys).

Figure 3: HIV risks among children. Figure A shows the percentage of total HIV/AIDS cases in children ages 0-14, contrasted with the percentage of total HIV/AIDS deaths in children ages 0-14. Figure B shows, among children and adolescents living with HIV, the high numbers of children 0-14 and adolescents 15-19 living with HIV who are not virally suppressed (including both those not on treatment and those reported to be on treatment), with total to over 1.5 million children (UNAIDS).

Figure 4: Figure A shows PEPFAR's Orphaned and Vulnerable Children's (OVC) Screening and Service Model that guides identification, care, and graduation of beneficiaries. Figure B shows PEPFAR's Model for protecting adolescent girls, youth, and children from HIV and sexual violence through the DREAMS and OVC programs. (Source: In-depth interviews)

Figure 5: Without PEPFAR, children are at extreme risks of HIV infection (A), AIDS-related deaths (B), and elevated risks of orphanhood (C).⁶ (Projection scenarios for 2024-2030 were based on modelling the complete cessation of PEPFAR in 2024 against the counterfactual of constant coverage of 5 interventions (preventing perinatal transmission to reduce child infections, pediatric ART to reduce child death, adult ART to reduce adult death and AIDS orphans, and voluntary medical male circumcision, and key populations services to reduce adult prevalence of HIV), at the 2022 level (a mix of both PEPFAR and non-PEPFAR). To model the number of children affected by the immediate and complete cessation of PEPFAR, the PEPFAR 2022 services were subtracted from the anticipated 2024 coverage in the absence of PEPFAR for the modeled interventions and carried that coverage level forward through 2030. (Source: Goals RSM Simulation Model as described in reference 6)

Author contributions

LC, GM and SH conceptualised the paper, drafted the writing, tables and figures. JP N-N, SF, JU, J I-A, MM and JS examined and extracted existing data, VL, LS, JN, CD, ET OO, GC and OR reviewed several drafts and provided inputs.

Data Sharing statement

There was no data collected for this study. Publicly available data was used for Fig 1A & B, 2A & B, 3B and Table 1 from Spectrum <https://www.avenirhealth.org/software-spectrum.php> and World Population Prospects <https://population.un.org/dataportal/home?df=995137c4-40d6-445f-8090-7db38eee279d>

Declaration of interests

CD and LS declare that, over ten years ago, they conducted research funded by PEPFAR, via USAID. Since then, they have had no funding with them. LC declares that in 2012 she did a short-term consultancy in Lesotho with USAID, and since then has had no funding with them. ET declares that she has previously conducted research with the Global Fund to Fight TB, HIV and Malaria. She currently has no work or funding with them. GM declares that he leads a Zambia-based non-governmental organisation that receives PEPFAR funding to deliver HIV treatment, prevention and care services. JWI-E declares research grants to his institutions from the National Institutes of Health, UNAIDS; and received a consultancy from Oxford Policy Management and a consultancy to his institution from BAO Systems. JS declares that he has received funding from UNAIDS. MM declares that UNAIDS receives funding from the US President's Emergency Plan for AIDS Relief, among other funders. SH declares that she previously worked as a consultant on Faith and Community Engagement with PEPFAR, and with the CDC. The other authors declared no conflicts of interest.

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Summary.

PEPFAR, a landmark USA foreign health policy, is recognised for saving 26 million lives from HIV. PEPFAR's lifesaving impacts for children across sub-Saharan Africa include supporting orphaned and vulnerable children, protecting girls from sexual abuse, and providing HIV prevention, care, and treatment. We review UNAIDS, UNICEF, VACS, SPECTRUM, and PHIA data; synthesise PEPFAR reports; conduct in-depth interviews; search PubMed for program effectiveness evidence; and review economic reports, to examine the continued need for PEPFAR to protect children from HIV risks. We examine PEPFAR's collateral benefits that protect societies from destabilization. We find risks in the region remain acute: one in five girls experiences rape or sexual assault; one in ten children is orphaned; and one child under 15 dies from AIDS every seven minutes. PEPFAR investments have ensured 7·8 million babies born HIV-free; protected 13 million orphaned children and 10·3 million girls from sexual abuse; and show collateral benefits for national security, geopolitical stability, and trade. Without PEPFAR, models predict a million new child HIV-infections, half a million additional child AIDS deaths, and 2·8 million children additionally orphaned by AIDS by 2030. Now is the time to sustain the gains and accelerate progress to end HIV/AIDS.

References

1. UNICEF. When Numbers Demand Action: Confronting the global scale of sexual violence against children. . New York: UNICEF, 2024.
2. US Department of State. Implementing the President's Executive Order on Reevaluating and Realigning United States Foreign Aid, January 26, 2025. Washington DC; 2025.
3. The United States Leadership Against HIV/AIDS, Tuberculosis and Malaria Act of 2003. Public Law 108-25-May 27 2003. USA; 2003.
4. UNAIDS. aidsinfo.unaids.org. 2025.
5. US Department of State. PEPFAR: Latest Global Program Results, December 2024. Washington, DC, 2024.
6. PEPFAR. Annual Report to Congress. Washington DC, 2022.
7. US Department of State. Nineteenth Annual Report to Congress (2023) Report to Congress on Implementation of Assistance to Combat HIV/AIDS 22 USC 2151b-2(f): Assistance to Combat HIV/AIDS. Washington, DC, 2023.
8. S.1443-Foreign Assistance Act of 1973, Amendment to Foreign Assistance Act of 1961. USC; 1973.
9. Ratevosian J, Millett G, Honermann B, et al. PEPFAR under review: what's at stake for PEPFAR's future. *Lancet* 2025.
10. UNDESA Population Division. World Population Prospects 2024 2024.
11. Grassly NC, Timaeus IM. Methods to estimate the number of orphans as a result of AIDS and other causes in Sub-Saharan Africa. *J Acquir Immune Defic Syndr* 2005; **39**(3): 365-75.
12. Stover J, Johnson P, Hallett T, Marston M, Becquet R, Timaeus IM. The Spectrum projection package: improvements in estimating incidence by age and sex, mother-to-child transmission, HIV progression in children and double orphans. *Sex Transm Infect* 2010; **86 Suppl 2**(Suppl_2): ii16-21.
13. Timaeus I. Estimation and progression of dual orphans in populations with generalized HIV epidemics: Updated methods. London, 2008.
14. Stover J, Andreev K, Slaymaker E, et al. Updates to the spectrum model to estimate key HIV indicators for adults and children. *Aids* 2014; **28 Suppl 4**(4): S427-34.
15. Reid G, Voetsch AC, Stupp P, et al. Improving Sampling Efficiency for Determining Pediatric HIV Prevalence in National Surveys: Evidence From 8 Sub-Saharan African Countries. *J Acquir Immune Defic Syndr* 2021; **87**(Suppl 1): S43-s51.
16. World Health Organisation. INSPIRE: Seven Strategies for Ending Violence Against Children. Geneva: World Health Organisation, 2016.
17. Hillis SD, Unwin HJT, Chen Y, et al. Global minimum estimates of children affected by COVID-19-associated orphanhood and deaths of caregivers: a modelling study. *The Lancet* 2021; **398**(10298): 391-402.
18. Cluver L, Imai-Eaton JW, Sherr L, Mahy M, Flaxman S. Reauthorise PEPFAR to prevent death, orphanhood, and suffering for millions of children. *Lancet* 2023; **402**(10404): 769-70.
19. Teasdale CA, Zimba R, Abrams EJ, et al. Estimates of the prevalence of undiagnosed HIV among children living with HIV in Eswatini, Lesotho, Malawi, Namibia, Tanzania, Zambia, and Zimbabwe from 2015 to 2017: an analysis of data from the cross-sectional Population-based HIV Impact Assessment surveys. *The Lancet HIV* 2022; **9**(2): e91-e101.
20. Kidman R, Palermo T. The relationship between parental presence and child sexual violence: Evidence from thirteen countries in sub-Saharan Africa. *Child Abuse & Neglect* 2016; **51**: 172-80.

21. Kenyan Ministry of Labor and Social Protection. Violence Against Children Survey Report 2019. Nairobi, 2020.
22. VanderEnde K, Chiang L, Mercy J, et al. Adverse Childhood Experiences and HIV Sexual Risk-Taking Behaviors Among Young Adults in Malawi. *J Interpers Violence* 2018; **33**(11): 1710-30.
23. UNAIDS. Global AIDS Statistics. Geneva: UNAIDS, 2024.
24. UNAIDS. 2024 Global AIDS Report - the Urgency of Now: AIDS at a Crossroads. Geneva: UNAIDS, 2024.
25. PEPFAR. Faith and Community Engagement 2023-2025. Washington, DC: US Department of State, 2025.
26. Pew Research Center. Key findings from the Global Religious Futures Project: Pew-Templeton Global Religious Futures Project, 2022.
27. PEPFAR, UNAIDS. Compendium of Promising Practices of African Faith Community Interventions Against Paediatric and Adolescent HIV. Geneva: UNAIDS, 2023.
28. Ezeanolue EE, Obiefune MC, Ezeanolue CO, et al. Effect of a congregation-based intervention on uptake of HIV testing and linkage to care in pregnant women in Nigeria (Baby Shower): a cluster randomised trial. *Lancet Glob Health* 2015; **3**(11): e692-700.
29. Abramsky T, Devries K, Kiss L, et al. Findings from the SASA! Study: a cluster randomized controlled trial to assess the impact of a community mobilization intervention to prevent violence against women and reduce HIV risk in Kampala, Uganda. *BMC Med* 2014; **12**: 122.
30. Oomman N, Bernstein M, Rosenzweig S, Pearson J. PEPFAR Funding for Fiscal Years 2004 to 2006. Center for Global Development HIV/AIDS Monitor, 2006.
31. UNAIDS. Children on the Brink 2004: A joint report of new orphan estimates and a framework for action. New York: UN, 2004.
32. UNAIDS. Global data on HIV epidemiology and response. <https://aidsinfo.unaids.org>: UNAIDS, 2023.
33. Baiocchi M, Omondi B, Langat N, et al. A Behavior-Based Intervention That Prevents Sexual Assault: the Results of a Matched-Pairs, Cluster-Randomized Study in Nairobi, Kenya. *Prev Sci* 2017; **18**(7): 818-27.
34. Thurman TR, Luckett B, Zani B, Nice J, Taylor TM. Can Support Groups Improve Treatment Adherence and Reduce Sexual Risk Behavior among Young People Living with HIV? Results from a Cohort Study in South Africa. *Tropical Medicine and Infectious Disease* 2024; **9**(7): 162.
35. Vandenhoudt H, Miller KS, Ochura J, et al. Evaluation of a U.S. Evidence-Based Parenting Intervention in Rural Western Kenya: From Parents Matter! to Families Matter! *AIDS Education and Prevention* 2010; **22**(4): 328-43.
36. Jones KA, Tancredi DJ, Abebe KZ, Paglisotti T, Miller E. Cases of Sexual Assault Prevented in an Athletic Coach-Delivered Gender Violence Prevention Program. *Prevention Science* 2021; **22**(4): 504-8.
37. Kanagasabai U, Aholou T, Chevalier MS, et al. Reaching Youth Through Faith Leaders: Evaluation of the Faith Matters! Initiative. *AIDS Educ Prev* 2023; **35**: 82-99.
38. Cluver L, Meinck F, Steinert J, et al. Parenting for Lifelong Health: A pragmatic cluster randomised controlled trial of a non-commercialised parenting programme for adolescents and their families in South Africa. *BMJ Global Health* 2018; **3**(e000539).
39. Nyberg BJ, Yates DD, Lovich R, et al. Saving Lives for a Lifetime: Supporting Orphans and Vulnerable Children Impacted by HIV/AIDS. *JAIDS Journal of Acquired Immune Deficiency Syndromes* 2012; **60**: S127-S35.

40. Kim J, Ferrari G, Abramsky T, et al. Assessing the incremental effects of combining economic and health interventions: the IMAGE study in South Africa. *Bull World Health Organ* 2009; **87**(11): 824-32.

41. Johnson LF, Myer L, Jamieson L, Meyer-Rath G, Delany-Moretlwe S, Joseph Davey D. The potential benefits of long-acting injectable cabotegravir in pregnant and breastfeeding women and their infants. *AIDS* 2024; **38**(4): 589-94.

42. US Centers for Disease Control and Prevention. PEPFAR Panorama Spotlight: CDC, 2024.

43. PEPFAR. PEPFAR Twentieth Annual Report to Congress. Washington DC, 2024.

44. Mavhu W, Willis N, Mufuka J, et al. Effect of a differentiated service delivery model on virological failure in adolescents with HIV in Zimbabwe (Zvandiri): a cluster-randomised controlled trial. *Lancet Glob Health* 2020; **8**(2): e264-e75.

45. Willis N, Milanzi A, Mawodzeke M, et al. Effectiveness of community adolescent treatment supporters (CATS) interventions in improving linkage and retention in care, adherence to ART and psychosocial well-being: a randomised trial among adolescents living with HIV in rural Zimbabwe. *BMC Public Health* 2019; **19**(1): 117.

46. World Health Organization. Adolescent friendly health services for adolescents living with HIV: from theory to practice, December 2019: technical brief. Geneva, 2019.

47. Bekker LG, Das M, Abdoool Karim Q, et al. Twice-Yearly Lenacapavir or Daily F/TAF for HIV Prevention in Cisgender Women. *N Engl J Med* 2024; **391**(13): 1179-92.

48. Delany-Moretlwe S, Hughes JP, Bock P, et al. Cabotegravir for the prevention of HIV-1 in women: results from HPTN 084, a phase 3, randomised clinical trial. *Lancet* 2022; **399**(10337): 1779-89.

49. Skevington SM, Sovetskina EC, Gillison FB. A systematic review to quantitatively evaluate 'Stepping Stones': a participatory community-based HIV/AIDS prevention intervention. *AIDS Behav* 2013; **17**(3): 1025-39.

50. Baiocchi M, Omondi B, Langat N, et al. A Behavior-Based Intervention That Prevents Sexual Assault: the Results of a Matched-Pairs, Cluster-Randomized Study in Nairobi, Kenya. *Prevention science : the official journal of the Society for Prevention Research* 2017; **18**(7): 818-27.

51. Chiang L, Miedema S, Saul J, et al. Successful child sexual violence prevention efforts start with data: how the Violence Against Children and Youth Survey helped curb the tide of child sexual violence in 20 countries. *BMJ Paediatr Open* 2024; **8**(1).

52. UNAIDS. End inequalities. End AIDS. Global AIDS Strategy 2021-26. Geneva: UNAIDS, 2021.

53. US Department of State. PEPFAR 2023 Country and Regional Operational Plan (COP/ROP) Guidance for all PEPFAR-Supported Countries. Washington, DC, 2023.

54. UNAIDS. HIV Response Sustainability Primer. Geneva: UNAIDS, 2024.

55. Kates J, Moss K, Oum S, Rouw A, Nandakumar A. Sustainability Readiness in PEPFAR Countries. Kaiser Family Foundation 2023.

56. Human Rights Watch. African governments falling short on healthcare funding: Slow progress 23 years after landmark Abuja Declaration. New York, 2024.

57. Stover J, Coalition for Children Affected by AIDS. Children and adolescents affected by HIV and AIDS: Expenditures, Needs and Resource Gaps. London, 2024.

58. Makangila G, Hillis S, Maphosa T, et al. Effectiveness of Zambia Faith-engaged Community Post Model in Closing HIV Equity Gaps. ICASA. Harare; 2024.

59. Baerecke L, Ornellas A, Wamoyi J, et al. A hybrid digital parenting programme to prevent abuse of adolescents in Tanzania: study protocol for a pragmatic cluster-randomised controlled trial. *Trials* 2024; **25**(1): 119.

60. Wagner Z, Barofsky J, Sood N. PEPFAR Funding Associated With An Increase In Employment Among Males in Ten Sub-Saharan African Countries. *Health Aff (Millwood)* 2015; **34**(6): 946-53.

61. Crown W, Hariharan D, Kates J, et al. Analysis of economic and educational spillover effects in PEPFAR countries. *PLoS One* 2023; **18**(12): e0289909.

62. Gaumer G, Luan Y, Hariharan D, et al. Assessing the impact of the president's emergency plan for AIDS relief on all-cause mortality. *PLOS Glob Public Health* 2024; **4**(1): e0002467.

63. Gaumer G, Crown WH, Kates J, et al. Analysis of maternal and child health spillover effects in PEPFAR countries. *BMJ Open* 2023; **13**(12): e070221.

64. Rudgard W, Desmond C, Obiesie S, et al. The Case for Rights-Based Investments in Adolescent Girls in Kenya: An Economic Modelling Study SSRN https://paperssrrncom/sol3/papersefm?abstract_id=4796783 2024.

65. Laird JJ, Klettke B, Hall K, Clancy E, Hallford D. Demographic and Psychosocial Factors Associated With Child Sexual Exploitation: A Systematic Review and Meta-analysis. *JAMA Netw Open* 2020; **3**(9): e2017682.

66. Africa Human Capital Heads of State Summit. Africa's moment: the Promise of a Demographic Dividend. Dar Es Salaam, 2023.

67. Rubio M. Priorities and Mission of the Second Trump Administration's Department of State. Washington DC: US Department of State,; 2025.

68. Daschle T, Frist B. Building Prosperity, Stability, and Security Through Strategic Health Diplomacy: A Study of 15 Years of PEPFAR. Washington DC: Bipartisan Policy Center, 2018.

69. BE G, H Y, T W. Doing well by doing good: the impact of foreign aid on foreign public opinion. *Quarterly Journal of Political Science* 2014; **9**: 77-114.

70. Mirza M, Grant-Greene Y, Valles M, et al. Leveraging PEPFAR-Supported Health Information Systems for COVID-19 Pandemic Response. *Emerg Infect Dis* 2022; **28**(13): S49-S58.

71. USAID, PEPFAR. Program reports, based on Data for Accountability, Transparency and Impact (DATIM) FY2024. 2024.

72. Office of the US Trade Representative. Africa Trade Summary, 2024.

73. International Monetary Fund. Regional Economic Outlook: Sub-Saharan Africa. Reforms and Great Expectations. Washington, DC: IMF, 2024.

74. Guo B, Fan V, Strange A, Grépin KA. Understanding China's shifting priorities and priority-setting processes in development assistance for health. *Health Policy and Planning* 2024; **39**(Supplement_1): i65-i78.

75. Dolan CB, Malik AA, Zhang S, et al. Chinese health funding in Africa: The untold story. *PLOS Glob Public Health* 2023; **3**(6): e0001637.

76. Burrier E, Sheehy T. Challenging China's Grip on Critical Minerals Can Be a Boon for Africa's Future: United States Institute of Peace, , 2023.

77. Alibabalu S, Sarkhanov T. Iran's public diplomacy and religious soft power in Africa. *Politics and Religion Journal* 2023; **17**(12): 411-33.

78. US Department of Defense. Military and security developments involving the People's Republic of China 2024: Annual Report to Congress. Washington DC, 2024.

79. Villaveces A, Chen Y, Tucker S, et al. Orphanhood and caregiver death among children in the United States by all-cause mortality, 2000–2021. *Nature Medicine* 2025.

80. Finkelhor D, Turner H, Colburn D. The prevalence of child sexual abuse with online sexual abuse added. *Child Abuse & Neglect* 2024; **149**: 106634.

81. Rutter M. Annual Research Review: Resilience--clinical implications. *J Child Psychol Psychiatry* 2013; **54**(4): 474-87.

82. Yule K, Houston J, Grych J. Resilience in Children Exposed to Violence: A Meta-analysis of Protective Factors Across Ecological Contexts. *Clin Child Fam Psychol Rev* 2019; **22**(3): 406-31.

83. Cluver L, Orkin FM, Campeau L, et al. Improving lives by accelerating progress towards the UN Sustainable Development Goals for adolescents living with HIV: a prospective cohort study. *Lancet Child Adolesc Health* 2019; **3**(4): 245-54.

84. Omigbodun O. Developing child mental health services in resource-poor countries. *International Review of Psychiatry* 2008; **20**(3): 225-35.

85. Ungar M, Theron L. Resilience and mental health: how multisystemic processes contribute to positive outcomes. *Lancet Psychiatry* 2020; **7**(5): 441-8.

86. Stover J, Flanagan CF, Teng Y. The Impact of the President's Emergency Program for AIDS Relief (PEPFAR) on Children. *MedRxiv preprint* 2023.

87. Risch J. PEPFAR at 20: Achieving and sustaining epidemic control. Committee on Foreign Relations of the United State Senate, 118th Congress, First Session. Washington, DC: US Government Publishing Office; 2023.

88. World Relief Corporation of National Association of Evangelicals. World Relief Responds to Executive Order Temporarily Pausing Foreign Aid. 2025.