
Hiv Aids, Donor Funding and Country Population in Kenya

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ABSTRACT: HIV AIDS requires finances to buy medicine and to finance the support activities such as salaries for those who provide medical care for those infected and those affected by the menace. The scourge is essentially contained through allocation of funds to finance it and through sourcing of donor funds to fill the financing gap created by shortages that arise because the country financial needs outweigh the financial demands. Therefore finances to procure medicine and to fund other HIV AIDS related activities needs to be provided to avoid loss of lives which can translate to the reduction of country population (World Health Organization, 2015). The study sought to find out the impact of HIV AIDS and donor funding on country population in Kenya. Four hypotheses were tested which were; the impact of HIV AIDS on country population in Kenya, the influence of HIV AIDS on donor funding in Kenya, the effect of donor funding on country population in Kenya and finally, to determine the influence of HIV AIDS, donor funding and country population in Kenya. Correlation analysis was done and regression models estimated to determine the impact, influence and the effect of the independent variables on the dependent variables. Tests of significance were done to determine the significance of the relationship between the dependent and the independent variables. The findings revealed that HIV AIDS has a significant negative impact on country population in Kenya while HIV AIDS influences donor funding in Kenya positively and significantly. Essentially, donor funding was found to significantly and negatively influence country population. When the two independent variables were regressed against the dependent variable the findings were that both HIV AIDS and donor funding negatively significantly influence country population in Kenya at different degrees. The study recommends that money should be allocated to finance medicine and to pay for other HIV AIDS related activities. Where finances are not enough, donor funds can be sourced to seal the financing gap so that the population of the Kenyan people does not decrease as a result of the HIV AIDS scourge.

KEYWORDS: HIV AIDS, donor funding, donors, population, country, Kenya

INTRODUCTION

HIV AIDS is prevalent among the populations of many African countries possibly because it is contagious and it can be easily spread through sex and sharing of multiple partners especially where one or more of the partners is careless. Countries in Africa tend to encourage polygamy and wife inheritance which expose active partners to the danger of contracting the disease. Funds allocated to the Ministry of health are scaled down to the various departments and health lines that address different diseases and because of limitation of financial resources, allocations for funding HIV AIDS is not sufficient. To support people living with HIV and HIV and AIDS and those affected by it there is need to allocate sufficient financial resources including finances meant to contain sexually transmitted diseases (STDS) which fuel transmission of the disease. Other diseases such as, malaria and tuberculosis, mental illness, cancers, joint pains (Rheumatism), ENT(ear, nose and throat) and other diseases demand funding from country resources and budgetary allocations which are channeled through the Ministry of Health are done under the docket of the ministry of health while competition exists because other economic activities under other dockets that require financing. Government is therefore forced to spend borrowed money to fund some of the HIV activities which then escalates the country's Public Debt (National Treasury, 2011/2012). Expenditures incurred to pay consultant doctors of the Ministry of Health are paid for by the Ministry while medical expenses incurred by Public Officers at all levels are paid by insurance companies when they visit Health Care Facilities in Private Hospitals and Private Wings of Public Hospitals with the premium medical covers paid for by the Ministry of Health to insure the Public Officers (Odinkalu, 2023). Governments tend to have in place Health Insurance Institutions, such as the defunct National Health Insurance Fund (NHIF), which channel finances to hospitals to pay hospital bills for public officers. Monies are also allocated for Preventive measures such as vaccination against diseases such as the polio vaccine, measles vaccine, injection to prevent mother to child infection at birth and the current vaccine to prevent HIV infection and many other diseases. When new diseases strike such as was witnessed in 2019 the world over when Corona Virus hit the entire world and quite a number of people suffered while others lost their lives because the disease was easily spreadable. Donor support was quickly looked for to ensure finances required to contain the Corona Virus was available in many developing

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countries. Arguably all these diseases are global and every country and continent in the world is forced to put aside resources to contain and where possible to eradicate these diseases (UNAIDS/WHO, 2025). Ebola has hit many countries including countries in Africa in which during this year 2026 the disease which started in the Democratic Republic of Congo (DRC Congo) and is slowly being discovered in other countries forcing the countries at risk to put in place quarantine measures to prevent it from spreading and to possibly heal those with it when in isolation.

The developed countries have an interest in developing countries in which they either own companies or they do business with those countries and they therefore occasionally travel to those countries to become residents until it is time to return to their countries of origin. They have in the past cooperated in providing foreign aid to these countries so that these diseases can be treated as some of them, few as they may be, are stationed in those countries as they work and do business in those countries (Gordon, & Suzanne, 2023). Donors sometimes establish programmes in which they fund a set of diseases or fund a single disease. HIV and AIDS is sometimes combined with Malaria and Tuberculosis for funding under the Global Fund (GF) programme while the deadly Corona Virus is isolated and singly funded and so is the Ebola pandemic. Many donors have provided donor support in many countries to contribute to treatment, care and support and sometimes the complete eradication of the diseases geared towards putting caveats on reduction of the countries' population. If the diseases are not put under control, many members of the population tend to lose their lives and if the number of deaths are significant the population of the country ends up decreasing (NACC, 2023).

Many donors have been partners in supporting HIV and AIDS programme globally many of which focus on developing countries because of prevalence in these countries. Among them is the Global Fund which was established in 2002 and is the GF is a partnership programme designed to accelerate the end of AIDS, Tuberculosis and Malaria as epidemics to provide finances and expertise to minimize the number of people infected and infected by it. In partnership with governments, civil society, technical agencies, the private sector and people affected by the diseases, the Global Fund represents an innovative approach to international health financing. Kenya Red Cross Society (KRCS) was selected as the civil society principal recipient for the HIV grants in 2012 to minimize financial impropriety which were earlier witnessed when the funds used to be channeled through the Health Ministries of the recipient countries. The success of KRCS in managing Ksh 8.1 billion Global Fund HIV grant since 2012 stems from its strong capacity to deliver programmes to the affected communities through its countrywide presence, elaborate community engagement, and accountability (UNAIDS/WHO, 2025). Through the GF grant, KRCS seeks to contribute to the attainment of Universal Health Coverage (UHC) through universal access to comprehensive HIV prevention, treatment and care for all by contributing to increasing access and uptake of HIV Prevention, Care and Support, increasing treatment initiation, linkage, adherence and retention in the care of people with HIV and Supporting the elimination of mother-to-child transmission (eMTCT) through a mentor mother approach. Expanding HIV services to the key populations, adolescents and young people to reduce their vulnerability and risks to HIV and enhancing programmes to reduce human rights related barriers to HIV services is a major achievement of the GF. KRCS works with 73 community-based organisations (CSOs) as sub-recipients across 37 counties chosen for their disease burden (UNAIDS/WHO, 2025).

The Joint United Nations Programme on HIV/AIDS (UNAIDS) leads and inspires the world to achieve its shared vision of zero new HIV infections, zero discrimination and zero AIDS-related deaths. UNAIDS unites the efforts of 11 UN organizations—UNHCR, UNICEF, WFP, UNDP, UNFPA, UNODC, UN Women, ILO, UNESCO, WHO and the World Bank—and works closely with global and national partners, including NGOs, to maximize results for the AIDS response. The principal focus for Australia's support to the global HIV effort will continue to lie with the Asia Pacific region, particularly Papua New Guinea (PNG), East and South Asia and the Pacific Island countries. In Africa, support is channeled through the Global Fund and UNAIDS and through partnerships in strategic areas. AUSAID contributes to the Global Fund to Fight AIDS, UNAIDS funds HIV AIDS related activities in addition to providing support for HIV prevention and harm reduction for people who inject drugs so that they do not inject patients and non-patients who receive injections with HIV infected jabs (UNAIDS/WHO, 2025; WHO, 2025). Those who use piercing needles, pins and other metallic objects that have been penetrated in infected persons are sensitized not to share them to avoid escalating HIV infections (National Aids Control Council Report, 2023).

In the field of infectious disease control and HIV AIDS, Japan International Corporation Agency (JICA) provides support for the improvement of access to and the quality of testing, the collection and analysis of health information, and strengthening service providers' capacities to provide necessary treatment and care services. Moreover, JICA supports policy making at the national level, and enhancing service delivery at health facilities at the sub-regional level. Irish Aid work at national and global level with international organisations, governments, civil society and local communities to address the needs of people living with AIDS and to prevent the spread of the virus. HIV/AIDS has been an important priority area for NORAD since 1986 and is already integrated into much of the agency's work. NORAD focuses its efforts in four key areas which are; contributing towards limiting the spread of the epidemic, playing a key role in limiting the adverse effects of the epidemic on groups of people who are directly affected by the epidemic and preventing a negative social impact as regards human rights, stigmatisation and ostracism but finally to contribute towards preventing or limiting the negative consequences for social and economic development (Obasi, Ezenkwa,

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Onwa & Nwogbaga, 2017). With the freedom and flexibility to respond quickly to emerging areas of scientific promise, amfAR plays a catalytic role in accelerating the pace of HIV/AIDS research and achieving real breakthroughs and amfAR-funded research has increased the country understanding of HIV and has gone along way in helping to lay the groundwork for major advances in the study and treatment of HIV/AIDS. Since 1985, amfAR has invested more than \$388 million in its programs and has awarded more than 3,300 grants to research teams worldwide (WHO, 2025).

Broadway Cares/Equity Fights AIDS is one of the nation's leading industry-based, nonprofit AIDS fundraising and grant-making organizations. By drawing upon the talents, resources and generosity of the American theatre community, since 1988 BC/EFA has raised more than \$250 million for essential services for people with AIDS and other critical illnesses across the United States. The Elton John AIDS Foundation (EJAF) was established in the United States in 1992 by Sir Elton John, and is headquartered in New York City which aims to reduce the incidence of HIV/AIDS through innovative HIV prevention programs, efforts to eliminate stigma and discrimination associated with HIV/AIDS. Direct treatment, care and support services for people living with HIV/AIDS is also financed by EJAF. The M·A·F AIDS Fund was established in 1994 to support men, women and children affected by HIV/AIDS globally. MAF is a pioneer in HIV/AIDS funding, providing financial support to organizations working with underserved regions and populations. As the largest corporate non-pharmaceutical giver in the arena, MAF is committed to addressing the link between poverty and HIV/AIDS by supporting diverse organizations around the world that provide a wide range of services to people living with HIV/AIDS (NACC, 2024; WHO, 2025; Cunha, Meira & Orsato, 2021).

Donor support has the visionary effect of reducing infections and funding other diseases outside the main health line (Aldy, Gerarden & Sweeney, 2023). Since its inception in 2002, the Global Fund to Fight AIDS, Tuberculosis and Malaria has been a major engine driving this remarkable progress. Soon after its founding, the Global Fund became the main multilateral funder in global health. It channels 82 percent of the international financing for TB, 50 percent for malaria, and 21 percent of the international financing against AIDS. The programme also funds health systems strengthening, as inadequate health systems are one of the main obstacles to scaling up interventions to secure better health outcomes for HIV, TB and malaria. The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) launched in 2003 to support HIV prevention, care, and treatment worldwide work tirelessly toward ending the HIV epidemic across the globe. PEPFAR works with more than 50 partner countries and establishes partnerships across the private sector to reach the populations most affected by HIV and AIDS aimed at strengthening global health security. PEPFAR has helped tens of millions of people to get access to HIV testing, prevention, and treatment. The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) saves lives, prevents millions from HIV infections, and supports several countries to achieve HIV epidemic control. PEPFAR is the largest commitment by any nation to address a single disease in history, enabled by strong bipartisan support across ten U.S. congresses and four presidential administrations, and through the American people's generosity. PEPFAR shows the power of what is possible through compassionate, cost-effective, accountable, and transparent American foreign assistance. Since PEPFAR's inception in 2003, the U.S. government has invested over \$100 billion in the global HIV/AIDS response, saving over 25 million lives, preventing millions of HIV infections, and supporting several countries to achieve HIV epidemic control, all while significantly strengthening global health and economic security. The programme forges strategic partnerships with the private sector that support and specifically complement its prevention, care, and treatment work, addressing key gaps in innovative ways. PEPFAR partners with and strengthens the capacity of civil society and communities, including faith-based communities and organizations, recognizing that successful and sustainable HIV/AIDS interventions must involve, be informed by, and be tailored to those whom it serves. PEPFAR is managed and overseen by the U.S. Department of State's Bureau of Global Health Security and Diplomacy and implemented by seven U.S. government departments and agencies, leveraging the power of a whole-of-government approach to controlling the HIV/AIDS epidemic (UNAIDS/WHO, 2025).

In 2022, PEPFAR announced a five-year strategy which had the vision of firstly, fulfilling America's promise to end the HIV/AIDS pandemic by 2030 and this strategy centers on collaboration and partnership to confront the challenge of HIV/AIDS in the wake of other emerging health threats. The priorities of PEPFAR are such that in terms of progress, when PEPFAR was launched in 2003, an HIV diagnosis was a death sentence in much of the world and as of that time entire families and communities were falling ill. In the intervening years, death and despair have been overwhelmingly replaced with vibrant lives and hope. With the American people's generosity, the United States has saved 25 million lives and prevented millions of HIV infections through PEPFAR. Working together with partners in more than 50 countries, PEPFAR has accelerated progress toward controlling the HIV/AIDS pandemic – country by country. PEPFAR ensures every dollar is optimally focused for impact through data-driven policies while ensuring the support of partner countries to do the same (UNAIDS/WHO, 2025; Aldy, Gerarden & Sweeney, 2023; Obasi et. al., 2017).

World Bank (2020) observes that populations are critical because as more lives are saved the population remains intact and increases geometrically through birth, but decreases sporadically through natural and non-natural attrition, and morbidity and mortality routes. Donor support reaches the populations that are most affected by the HIV/AIDS epidemic with innovative solutions that meet their needs and therefore people who would otherwise have died because of being infected are saved through

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life prolonging drugs to avoid reduction of the countries' population. The donor agencies tend to leverage on the power of partnerships across multiple sectors to increase their impact and advance sustainability of the donor programmes and ordinarily the country's desired population. The strategic rigor has allowed the programmes to significantly expand the lifesaving results and impact without increasing financial resources. HIV prevention has gone a long way to ensure that the country population does not decrease sporadically by engaging in HIV prevention mechanisms.

The PrEP initiatives has ensured that HIV infections have not been as many as they would have otherwise been through creation of awareness which is key to the extent that those who get in contact with the infected people can be salvaged early enough through administration of PrEP. For example; between 2020 and 2024, new annual PrEP initiations supported by PEPFAR increased by more than 500%, to reach 2.5 million people who were protected from HIV infection in 2024. PEPFAR accounts for more than 90% of PrEP initiations globally and is providing long-acting injectables and PrEP is administered more than five countries. As part of effective HIV combination prevention interventions, innovations in long-acting injectable- PrEP hold the potential to accelerate progress toward ending HIV/AIDS as a public health threat not only in Africa but globally (UNAIDS/WHO, 2025). People in some countries have however been known to get in contact with infected people sometimes knowingly and other times unknowingly after which they are put under PrEP. While taking the one month dose of PrEP they get into contact with as many other partners and non-partners as possible during the one month period and after completing their one month dose they vanish from all the partners they had contact with during the one month. The medical fraternity can do research and provide information as to whether HIV can be spread by people protecting themselves while on PrEP while at the same time exposing other unsuspecting culprits to the risk of contracting the disease.

The youth is an important part of the population globally and boys and girls and young adults are continuously being put on HIV prevention mechanisms (UNAIDS, WHO, 2025). The programme PEPFAR reached 2.3 million adolescent girls and young women with comprehensive HIV prevention in 2024. The year 2024 marked the 10th anniversary of PEPFAR's flagship labeled; Determined Resilient Empowered AIDS-free Mentored and Safe (DREAMS) program, which reduced new HIV infections through interventions including access to PrEP, support for secondary school, and violence prevention. PrEP initiations among adolescent girls and young women aged 15 to 24 was rated to be 1.4 times higher in districts implementing DREAMS, with nearly 475,000 initiated in 2024. The global agenda to eradicate the number of babies born HIV-free saw PEPFAR enable 7.8 million babies born HIV-free to mothers living with HIV by September 30, 2024. The programme encouraged and continuous to encourage men and boys to get circumcised as a way of reducing the rate of infection. PEPFAR has provided 35.1 million voluntary medical male circumcisions in East and Southern Africa to help prevent new HIV infections since 2007, including 2.7 million in 2024.

Supporting orphans and vulnerable children has been critical to many countries particularly developing countries because many children end up being victims of the disease as a result of being affected after their parents and guardians are infected or transit through demise altogether and they require material and financial support to sustain their livelihood thereafter. The program has also provided critical care and support for about 6.6 million orphans and vulnerable children. HIV care gives especially those who advice those who are living with it and those who champion advocacy to prolong the lives of those infected including making the lives of those who are affected easier and more bearable. Donor support is provided to fund the support of the caregivers so those infected can survive and thrive. The health systems have been strengthened by supporting the health workers so that they administer treatment on those infected. PEPFAR directly supported more than 342,000 health workers to deliver quality HIV-related prevention, treatment, and supportive services in clinics and communities in 2024 (UNAIDS/WHO, 2025).

Donors have placed a lot of importance to the funding and they tend to provide donor support to beef up Government commitment to fund HIV AIDS (Leal Filho, Tripathi, Andrade Guerra, Giné-Garriga, OrlovicLovren & Willats, 2019; National Bureau of Statistics, 2023) which by extension prevents the reduction of country population by preventing deaths through prolonging life by providing ART (Ant-Retroviral Therapy). This research study evaluates whether HIV AIDS and donor funding influences country population in Kenya. What impact does HIV AIDS have on country population in Kenya? What is the correlation between HIV AIDS and donor funding in Kenya? Is there a relationship between donor funding and country population in Kenya? Does HIV AIDS and donor funding influence country population in Kenya?

Statement of the Research Problem

HIV Aids is prevalent in many developing countries and many developing countries are densely populated because of the culture of having many children and limited control of number of children per household. Many families of developing countries are large because family planning is a foreign language in many countries which have refused to embrace modernity. Poverty levels in these countries tend to expose men and women to the danger of contracting HIV because of cultural practices of wife inheritance even when the spouses of the wives died of Aids. The population of the country has continued to increase from one year to another but the resources of the country have not grown in tandem with the population increase. Being one of the countries in the

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third world, Kenya has continued to experience prevalence of diseases such as HIV and Aids, malaria, tuberculosis and other diseases. Africa as a continent continues to be threatened by diseases like Ebola which forces countries of the West to have their citizens screened before they get into the African countries and also to have the citizens from the African countries before they can gain access into the countries of Europe, Asia, China and America including Canada.

HIV Aids has been a scourge in Kenya like in many other countries of the world calling for the country to allocate resources in the Ministry of Health to contain the scourge in addition to sharing the allocated resources among other diseases that are prevalent in the country and the continent. PrEP has been used in many countries to contain the spread of the HIV virus. However People in some countries have been known to get in contact with infected people knowingly or unknowingly after which they are put under PrEP and while taking the one month dose of PrEP they get into contact with as many other partners as possible and after completing their one month dose they vanish from all the partners they had contact with during the one month.

The resources allocated to the Ministry of Health are not sufficient (Fatemi, & Fooladi, 2013) which has pushed the government of Kenya to negotiate for donor funds to help assist with support of the victims of HIV Aids (National Treasury, 2011/2012). Donors such as USAID, Global Fund, Clinton Foundation and many other countries have heeded to the call of providing donor support to Kenya as a country. The processing of donor funds have sometimes been a challenge because money from donors has to be received through organs of government. Treasury has to be accountable to donor funds and even when the funds are channeled to Ministry of Health and subsequently to the institutions that handle monies for funding HIV Aids such as the National Aids Control Council (NACC) and NASCOP among others, the accounting officer of the Ministry and the CEOs of the accountable institutions are charged with the responsibility of ensuring that the donor funds are properly accounted for (National Aids Control Council, 2024).

Corruption is rampant in developing countries of Africa and Kenya not being an exception monies that have been channeled by donors to fund the disease sometimes ends up in people's pockets. When impact assessment is done and the recipient countries and institutions are evaluated, very little is found to have been used in supporting the HIV and Aids holding those concerned culpable. The financial impropriety in the utilization of donor funds has made it evident that moneys meant for the scourge has not sometimes been used for the purposes intended. The Auditor General in Kenya for example has also revealed that money has not been used for purposes for which the donor agencies released the money for leading to the withdrawal of donor funds from programmes which were being funded.

Recently many donors withdrew their donor support from Kenya and areas that were being supported through the donor moneys were left with little funds for financing their activities. Medicines for suppressing the HIV and Aids have therefore not been sufficient following the withdrawal of donor aid and those who cannot afford to pay for them have had to go without HIV medication. If there is no money for supporting those who have the disease, does it mean that Kenyans are dying of the disease and therefore leading to a decrease in the Kenyan population? If donor funds for funding HIV Aids is dwindling where is the funds for funding HIV Aids coming from if HIV Aids is still being funded and if not why can't the country reallocate the government finances either directly or through the Ministry of Health to fund medicine for the HIV Aids disease? Is there a correlation between people with HIV Aids and amount of donor funding channeled to the country Kenya? What relationship is there between donor funding and country population in Kenya?

This research study evaluates the impact of HIV AIDs and donor funding on country population in Kenya.

Conceptual Model

Independent Variables

Dependent Variable

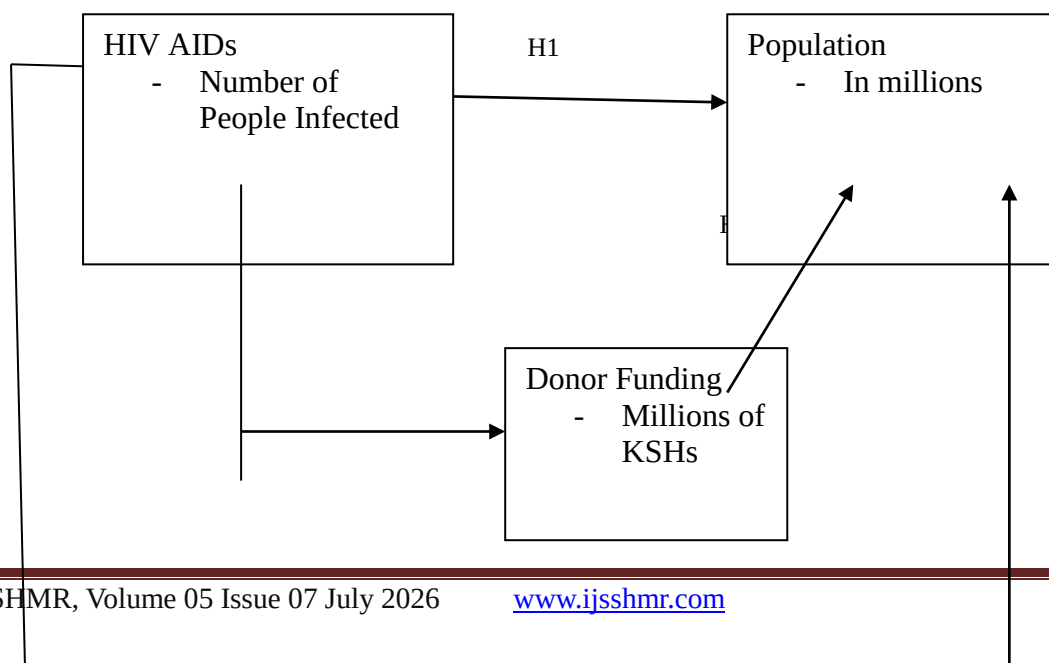


Figure 1: Conceptual Model

The study hypotheses are specified below:

Hypotheses

H01: HIV AIDs has no significant impact effect on country population in Kenya.

H02: HIV AIDs has no significant influence on donor funding in Kenya.

H03: Donor funding has no significant impact on country population in Kenya.

H04: HIV AIDs and donor funding have no significant effect on country population in Kenya.

Materials and Methods

Data for 2001 to 2024 on HIV AIDs was obtained from the National Aids Control Council (NACC) and from NASCOP. Data on donor funding was obtained from treasury, government ministries, from development partners such as the International Monetary Fund (IMF) and World Bank Reports, and from research organizations such as Kenya Institute of Policy Research and Analysis (KIPRA) while that on population was obtained from the Kenya National Bureau of Statistics. HIV AIDs was measured using the number of people with HIV AIDs year by year while data on donor funding was measured as the total donor funds channeled to Kenya and population measured as the total population of the Kenyan people in millions of Kenya shillings. The results were presented in tables.

Model Specification

Breusch, T. S., & Pagan, A. R. (1979) and The general regression equation was stated as;

$$\text{CountryPop} = \beta_0 + \beta_1 \text{HIVAids} + \beta_2 \text{DonFuds} \dots\dots\dots (1)$$

Where CountryPop is population growth, HIVAids is HIV AIDs and DonFuds is donor funds. β_0 is the constant term while β_1 and β_2 are coefficients.

Four objectives were formulated to achieve the main objective and four regression equations were estimated for each sub-objective.

$$\text{CountryPop} = \beta_0 + \beta_1 \text{HIVAids} \dots\dots\dots (2) \quad \text{DonFuds} = \beta_0 + \beta_1 \text{HIVAids} \dots\dots\dots (3)$$

$$\text{CountryPop} = \beta_0 + \beta_2 \text{DonFuds} \dots\dots\dots (4)$$

$$\text{CountryPop} = \beta_0 + \beta_1 \text{HIVAids} + \beta_2 \text{DonFuds} \dots\dots\dots (5)$$

Where the abbreviations are as defined in equation 1.

Data Analysis

Global Perspective

Globally, people living with HIV as at the end of 2024 has been tabulated in table 1. The PEPFAR report (2024) states that since the start of the epidemic, the lives of 44.1 million people have been claimed by the end of 2024. The global HIV epidemic claimed 70% fewer lives in 2024 since the peak in 2004 which means that there were so many people who died from HIV related deaths in 2004. Since 2010, HIV related deaths have reduced by 54% 1.4 million to 75600 people by the year 2024.

Table 1: People Living with HIV as at 2024 in millions globally

Total Pop Infected	Children <15years	Adults >15years	TotalNew Infections	Children <15years	Adults >15years	Total Deaths	Children <15years	Adults >15years
40.8	1.4	30.4	1.3	0.12	1.2	0.63	0.075	0.55

Source: PEPFAR, 2024 and Researcher Tabulations, 2026

Table 1 which was extracted from same report reveals that a total of 40.8 million people were infected by 2024 of which 1.4 were children while 30.4 were adults. The number of total new infections were 1.3 million people and again 120000 were children and 1.2 million were adults. Those who lost their lives from HIV related deaths were 630000 people of which 75000 were children and 550000 were adults. UNAIDS reports reveal that between 2010 and 2023 AIDS-related deaths decreased by 59% in PEPFAR-supported countries, compared with 51% globally.

Table 2: New Infections per 1000 people

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Year	2010	2024	Percentage Change (Decrease)
New Infections	0.32	0.16	50%

Source: PEPFAR, 2024 and Researcher Calculations, 2026

New infections decreased from 320000 people in 2010 to 160000 people in 2024 revealing a reduction of infections of 50%. Available UNAIDS estimates show there were 52% fewer new HIV infections in 2023 than in 2010 across PEPFAR-supported countries, compared to a 39% reduction globally. PEPFAR provided HIV testing to 83.8 million people in 2024 which was 12 million more than was reported in 2023. Across 55 countries, PEPFAR is supporting life-saving antiretroviral therapy (ART) for 20.6 million people, including 566,000 children with HIV, as of September 30, 2024. Viral load testing coverage and suppression among people on treatment continues to increase for children and remains high for adults in which 98 % of adults and 89 % of children are currently virally suppressed. The massive, rapid expansion in access to treatment stands as one of PEPFAR's greatest achievements not only has ART saved the lives of millions of people living with HIV and increased their life expectancy to near-normal levels, but it allows individuals to achieve and maintain viral suppression, the strongest available intervention to prevent HIV transmission (UNAIDS/WHO, 2025).

Transparency and accountability was embraced in the fight against HIV infections. WHO report (2025) reveals that by 2025, 96% of people living with HIV knew their HIV status (first 69) (1) while in 2024, about 87% [60] of people living with HIV knew their status. To reach the first 63–63–63 target, an additional 3.2 million people living with HIV needed to be made aware of their HIV status. People living with HIV receiving antiretroviral therapy (second 60). In 2024, 31.6 million people, or 77% [73] of people living with HIV were receiving antiretroviral therapy globally. To reach the second 69–62–63 testing, treatment and viral load suppression cascade target, an additional 5.2 million people living with HIV need to know their status and access antiretroviral therapy. In 2024, 73% [58] of people living with HIV had suppressed viral loads. The 97-95-96 targets motto by 2030 states that 97 percent of people living with HIV know their status, 95 percent of people living with HIV who know their status are on ART and 96 percent of people on ART have suppressed viral loads. These targets are equivalent to 97 percent of people living with HIV know their status, 69 percent of people living with HIV are on ART and 61 percent of people living with HIV have suppressed viral loads.

Correlation Analysis

Correlation matrix summarizes the associations between the independent and the dependent variables and also shows whether the associations are significant or not (Hair Jr, Black, Babin & Anderson (2013)).

Table 3: Correlation Matrix

Correlation Matrix			
	CountryPop	HIVAids	DonFuds
CountryPop	1		
HIVAids	0.06362**	1	
DonFuds	0.006263**	0.06263	1

Source: Researcher, 2026

The correlation matrix reveals significant correlation between the independent and the dependent variables and positive correlation between the independent variables. HIV AIDS is significantly positively correlated with country population, donor funds are significantly positively correlated with country population, and HIV AIDS and donor funding are insignificantly but positively correlated.

Regression Results

Breusch & Pagan (1979) and Hair Jr, et.al. (2013) support the use of the regression model as an analytical tool for determining correlations and relationships between independent and dependent variables. The explanatory power of the independent variables and the extent to which this independent variable explains the dependent variable is well amplified by use of regression models. After running the regressions, the regression results of the independent and the dependent variables while in line with the study objectives are summarized in the sections that follow.

The Impact of HIV AIDS and Country Population

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The impact of HIV AIDS on country population was evaluated by running a regression model linking the two study variables. The study found a positive relationship between HIV AIDS and country population which was estimated to be 6.362% ($R=0.06263$). Additionally HIV AIDS explained 6.973% ($R\text{-square}=0.06973$) of country population which means that the other 93.127% of the Kenyan population is explained by other factors other than HIV AIDS. The 6.973% is significant as the F-value was estimated at 48.7 with a p-value of 0.000 which surpasses the threshold of 0.05 ($p<0.05$).

Table 4: HIV AIDS and Country Population in Kenya

Model Summary								
Model		R	R Square		Adjusted R Square		Std. Error of the Estimate	
1		.06362 ^a	.06973		.06973		11.20046	
a. Predictors: (Constant), HIV AIDS								
ANOVA ^a								
Model		Sum of Squares		Df	Mean Square	F	Sig.	
1	Regression	98.6362	2	98.6362	51.6569	.000 ^b		
	Residual	32.1002	70	6.0827				
	Total	130.7364	72					
a. Dependent Variable: Country Population								
b. Predictors: (Constant), HIV AIDS								
Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	5.6511	1.5674		-4.268	.002	-1.456	3.1517
	HIV AIDS	-1.9680	2.6968	2.2830	2.1547	.000	8.2367	11.1954
a. Dependent Variable: Country Population								

Source; Researcher Construct, 2026

The constant term estimated was 5.6511 meaning that without HIV AIDS the country population would be 5.6511million people and was found to be significant ($t=-4.268$, $p=0.002$). The coefficient of the HIV AIDS was estimated to be -1.9680 and was found to be significant ($t=2.1547$, $p=0.000$) and the negative sign infers that for every one person with HIV AIDS reduces country population by 1.9680 which is approximately a reduction of 2 persons. **“The study therefore rejects the hypothesis that the impact of HIV AIDS on country population in Kenya is not significant”**. The resulting equation becomes;

$$\text{CountryPop} = 5.6511 - 1.968\text{HIV Aids.}$$

The Impact of HIV AIDS on Donor Funding

The association between HIV AIDS and donor funding was studied and the study estimated an r value of 0.06263 which means that there is a positive relationship between HIV AIDS and donor funding of 6.263%. The estimated R-Square of 0.06267 infers that 6.267% of donor funding is explained by HIV AIDS and the value was found to be significant ($F\text{-value}=51.6567$, $p=0.000$).

Table 5: HIV AIDS and Donor Funding in Kenya

Model Summary								
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate			
1		.06263 ^a	.06267	.06268	36.7862			
a. Predictors: (Constant), HIV AIDS								
ANOVA ^a								
Model		Sum of Squares	Df	Mean Square	F	Sig.		
1	Regression	97.6768	2	97.6768	51.6567	.000 ^b		
	Residual	32.3475	70	7.6700				
	Total	130.0243	72					
a. Dependent Variable: Donor Funding								
b. Predictors: (Constant), HIV AIDS								
Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound

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1	(Constant)	9.7476	-1.6287		.4631	.0379	-1.1542	1.1738
	HIV AIDS	16.6573	-2.6340	2.7869	1.7275	.001	1.51346	8.1448

a. Dependent Variable: Donor Funding

Source; Researcher Construct, 2026

The constant term was estimated to be 9.7476 which means that without HIV AIDS donor funding would be 9.7476 billion shillings which is significant ($t=0.4631$, $p=0.0379$). The coefficient calculated of 16.6573 reveals that HIV AIDS increases donor funding by 16.6573 shillings per every unit and was found to be significant ($t=1.7275$, $p=0.001$). **“The study therefore rejects the hypothesis that HIV AIDS has no significant influence on donor funding in Kenya”** and the equation is stated as;

$$\text{DonFuds} = 9.7476 + 16.6573\text{HIV Aids}$$

The Influence of Donor Funding on Country Population

Country population was found to be impacted on by donor funding. There was a positive relationship between donor funding and country population as revealed by r value of 0.006263 ($r=0.006263$) which is a positive relationship to the tune of 0.6263%. In the same token donor funding explained 0.983% ($R\text{-square}=0.00983$) of country population which was found to be significant ($F\text{-value}=48.6260$, $p\text{-value}=0.000$) leaving the bigger chunk of 99.017% of the population to be explained by other factors not factored in the model.

Table 6: Donor Funding and Country Population in Kenya

Model Summary								
Model		R	R Square		Adjusted R Square		Std. Error of the Estimate	
1		.006263 ^a	.00983		.00987		17.24716	
a. Predictors: (Constant), Donor Funding								
ANOVA ^a								
Model		Sum of Squares		Df	Mean Square		F	Sig.
1	Regression	93.2862		2	93.2862		48.6260	.000 ^b
	Residual	37.1438		70	7.0684			
	Total	130.4300		72				
a. Dependent Variable: Country Population								
b. Predictors: (Constant), Donor Funding								
Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	7.7100	.8961		-1.068	.007	-1.6159	2.438
	Donor Funding	-1.5860	2.117	1.9047	2.8586	.000	.0017	1.383
a. Dependent Variable: Country Population								

a. Dependent Variable: Country Population

Source; Researcher Construct, 2026

The constant term estimated was 7.7100 inferring that without donor funding the population would stand at 7.71 million people which is significant ($t=-1.068$, $p=0.007$). The coefficient of donor funding was estimated at -1.5860 which means that one shilling of donor funding reduces the country population with 1.586 persons or reduces the country population with approximately two persons. The coefficient is significant ($t=2.8586$, $p=0.000$). **“The study therefore rejects the hypothesis that donor funding has no significant impact on country population in Kenya”**. The resulting equation is thus stated as;

$$\text{CountryPop} = 7.71 - 1.586\text{DonFuds}$$

The Effect of HIV AIDS and Donor Funding on Country Population

HIV AIDS and donor funding was evaluated against country population and the study revealed that there is a positive relationship between HIV AIDS, donor funding and country population as revealed by the r value of 0.008449 which portrays a positive relationship of 0.8449% inferring the remaining 99.1551% of the relationships are elsewhere. The estimated R-square of 0.007860 infers that 0.786 of country population is explained by both HIV AIDS and donor funding and was found to be significant ($F=27.0518$, $p=0.000$).

Table 7: Effect of HIV AIDS and Donor Funding on Country Population in Kenya

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.008449 ^a	.007860	.006470	23.6479

a. Predictors: (Constant), HIV AIDS, Donor Funding

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ANOVA ^a								
Model		Sum of Squares		Df	Mean Square	F	Sig.	
1	Regression	96.2462		2	54.5231	29.0518	.000 ^b	
	Residual	35.2463		70	5.1906			
	Total	131.4925		72				
a. Dependent Variable: Country Population								
b. Predictors: (Constant), HIV AIDS, Donor Funding								
Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error				Beta	Lower Bound
1	(Constant)	8.17878	3.7132		-1.0866	.001918	-.3926	1.3460
	HIV AIDS	-5.713	1.8168	1.4807	-1.9256	.03671	-.1874	2.6801
	Donor Funding	-.6217	1.0772	1.0263	2.9360	.01919	1.5254	3.5454
a. Dependent Variable: Country Population								

Source; Researcher Construct, 2026

The constant term calculated was estimated to be 8.17878 and was found to be significant ($t=-1.0866$, $p=0.001918$). The constant term estimated infers that if there is no HIV AIDS and no donor funding, country population would stand at 8.17878million people or approximately 8 or 9 people. The coefficient of the HIV AIDS was estimated to be -5.713 and was significant ($t=-1.9256$, $p=0.03671$) and infers that HIV AIDS prevalence significantly reduces the country population by 5.713 people or by approximately 6 people. Further, donor funding was estimated at -0.6217 which infers that every shilling of donor funding reduces country population by 0.6217 people or by approximately one person and was found to be significant ($t=2.7360$, $p=0.01919$). **The study therefore rejects the hypothesis that HIV AIDS and donor funding has no significant effect on country population in Kenya**. The equation was thus stated as; $\text{CountryPop} = 8.17878 - 5.713\text{HIV Aids} - 0.6217 \beta_2\text{DonFuds}$

CONCLUSIONS

HIV Aids has been a scourge in Kenya like in many other countries of the world calling for the country to allocate resources to the Ministry of Health to contain the scourge in addition to share the allocated resources among other diseases that are prevalent in the country and the continent. The study sought to find out how HIV AIDS and donor funding influences country population in Kenya. Correlation analysis revealed a positive relationship between HIV AIDS and country population, between HIV AIDS and donor funding, between donor funding and country population and positive association between HIV AIDS, donor funding and country population in Kenya. The correlation coefficient reveals that the relationships between the HIV AIDS, donor funding and country population either individually or collectively was small. The relationship between HIV AIDS and country population, HIV AIDS and donor funding, and the associations of HIV AIDS, donor funding and country population were found to be positive. The results revealed that either individually or collectively the relationships and associations of the country population which have nothing to do with HIV AIDS and donor funding were a larger percentage implying that the bigger percent of the these relationships and associations were found elsewhere respectively. The coefficient of determination revealed that HIV AIDS explains 6.973% of country population, HIV AIDS explains 6.267% of donor funding, donor funding explained 0.983% of country population and both HIV AIDS and donor funding explains 0.786% of country population in Kenya.

The coefficients estimated revealed that HIV AIDS significantly impacts on country population HIV AIDS negatively positively influences donor funding, donor funding significantly influences country population while both HIV AIDS and donor funding were found to negatively influence country population in Kenya significantly and respectively. The study recommendations are that while recognizing the importance of sustaining country population particularly because of the votes that need to be garnered during the country general elections and for agents of gods looking for human sacrifices to be able to get enough of them, containing the population to levels that can be supported by the available country resources is crucial. However the sufficiency of resources to support the country population is questionable because population is not kept at the same level for everybody because some people are normally found at the lower end of country resources (like the pre-independence generations when children were very many per household and they still used to be fed) while others are found at the upper end of the country resources but accumulated individually and when massive with small immediate families (immediate families with few children) men increase their number of children outside the immediate family circle to the number they target to have to keep up to the level of the number of children their African parents had or even more (since they have accumulated massive wealth anyway). Those men target to accumulate as much wealth with their wives after which they send to the maker and then they sir the number of children they desire with subsequent women who were there or who are subsequently gotten by them thereafter. Donor funding when sourced may not be able to avail sufficient funds to finance what cannot be financed using resources from budgetary allocations

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especially when we think in terms of Kenyans who want to rely on Government of the day do everything for them (what the Kikuyu tribe in Kenya refers to as the ‘lazy crop of people’).

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