Impact of HIV and AIDS in sub-Saharan Africa

Introduction

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Roughly 70 percent of all people living with HIV live in sub-Saharan Africa, despite accounting for just 13 percent of the world's population.

The HIV epidemic has had a number of impacts on this region with the most obvious effects being ill health and the number of lives lost. In 2012, there were 1.6 million new HIV infections and 1.2 million AIDS-related deaths. As well as heathcare and households, HIV and AIDS have impacted significantly upon the education sector, labour and productivity and the wider economy.

However, since 2001, the annual number of new HIV infections in sub-Saharan Africa has decreased by 34 percent. This is largely due to the scaling up of antiretroviral treatment (ART) across the region, which reduces the chance of onwards transmission.

For the first time, in 2011, over half of all sub-Saharan Africans in need of ART were receiving it (56 percent), in 2012, this increased to 68 percent. It is widely acknowledged that increasing access to ART will dramatically decrease the impact of HIV in this region.

A grandmother in Zimbabwe works in her garden. She also looks after seven orphaned grandchildren because their parents have died from AIDS-related illnesses

HIV and poverty in sub-Saharan Africa

The link is often made between poverty and the spread of HIV but the relationship is very complex and research remains inconclusive. In 2010, 48.5 percent of people living in sub-Saharan Africa were living below the poverty line ($1.25 a day).

For a long time, it was believed that poverty drives the HIV epidemic, particularly in sub-Saharan Africa. Indeed, in 1997, the World Bank reported that: "widespread poverty and unequal distribution of income that typify underdevelopment appear to stimulate the spread of HIV"

Poverty can force people to leave home in order to find work. For women in particular, this can make them vulnerable to exploitation including early marriage and force some into sex work. However, this argument has since been challenged by a number of studies. For example, one study of 24 countries in sub-Saharan Africa found a higher concentration of HIV and AIDS among wealthier individuals. This is thought to be due to a number of factors including greater mobility and multiple partners.

Poverty alleviation does have a role to play in preventing the spread of HIV in sub-Saharan Africa. However, the relationship between HIV prevalence and wealth is not direct and is influenced by a number of underlying social and cultural factors, which also need to be addressed.

Life expectancy

At the height of the HIV epidemic in sub-Saharan Africa between 1990 and 2000, average life expectancy stagnated at 49.5 years. In 2006, it was reported that in many countries, HIV and AIDS had wiped 20 years off life expectancy. This impact on life expectancy was attributed largely to child mortality, associated with an increase in the mother-to-child transmission of HIV during pregnancy.

In the period 2002-2012 life expectancy increased by 5.5 years due mainly to the dramatic scaling up of antiretroviral treatment. However, life expectancy in many countries remains very low. Swaziland, which has the highest HIV prevalence in the world, has a life expectancy of just 48.9. Lesotho's is equally low at 48.7 years.

The table below shows current life expectancy of people in countries in sub-Saharan Africa worst affected by the HIV and AIDS epidemic.

Country	HIV prevalence (%)	Life expectancy (years)
Botswana	23	50
Lesotho	23.1	48.7
Malawi	10.8	54.8
Mozambique	11.1	50.7
Namibia	13.3	62.6
South Africa	17.9	53.4
Swaziland	26.5	50
Zambia	12.7	49.4
Zimbabwe	14.7	52.7

Households and livelihoods

The HIV epidemic has had a severe and wide ranging impact upon households in sub-Saharan Africa. Many families have lost their chief income earners, who have died, or are too sick to work. This puts a heavy financial burden on families who have to pay ever increasing medical costs, forcing many into poverty. As a result, many families have to provide home-based care, further reducing their earning capacity and placing more demands on their resources.

In many cases, households simply dissolve because parents die and children are sent to relatives for care and upbringing.

Parents and children

The majority of adults newly infected with HIV are in sub-Saharan Africa. At the height of the HIV epidemic, there were an estimated 2.2 million new HIV infections annually, this had fallen 35 percent by 2011 (1.5 million). Despite an on-going decline in HIV and AIDS cases as well as deaths, 17.3 million children have now been orphaned by the epidemic globally, 88 percent of this number, in this region.

As a result of the slow progress made in treatment, care and support to mothers living with HIV in the mid-2000s, roughly 3.4 million children under the age of 15 were living with HIV globally in 2011, due to mother-to-child transmission. 91 percent of this number (3.1 million) were in sub-Saharan Africa.

However, the situation is improving largely due to much greater access to antiretroviral treatment. Since 1995, most of the children who have averted HIV infection live in sub-Saharan Africa. In 2011, the number of children who acquired HIV in this region was 29 percent less than in 2009.

Household income and basic necessities

The HIV and AIDS epidemic in sub-Saharan Africa can seriously impact upon a household's ability to generate income.

When the income earners become too sick to work or simply die, children can be forced to abandon their education, and in some cases, women may turn to sex work as a source of income, increasing the risk of HIV transmission.

The loss of income, in addition to rising medical costs, reduces the ability of people giving care to work themselves, pushing HIV-affected households deeper into poverty.

"She then led me to the kitchen and showed me empty buckets of food and said they had nothing to eat that day just like other days."

Food security

Food insecurity can be a factor behind the spread of HIV. As a coping strategy, some people are forced to engage in transactional sex, which subsequently increases the risk of transmission.

At the same time, the epidemic can create food insecurity and malnutrition by increasing medical costs and reducing the productivity of the workforce, impacting heavily upon people’s livelihoods.

“Our fields are idle because there is nobody to work them. We don't have machinery for farming, we only have manpower - if we are sick, or spend our time looking after family members who are sick, we have no time to spend working in the fields." - Toby Solomon, commissioner for the Nsanje district, Malawi

Food insecurity and malnutrition among people living with HIV has also been found to affect someone's adherence to ART. One study from Uganda has identified the relationship between food security, quality of diet and nutritional status and quality of life among HIV-positive people. Moreover, those with access to nutrient-rich foods have been found to have stronger immune systems with their bodies more effective at fighting HIV. Food security and good nutrition are regarded as key components of HIV treatment programmes.

Coping strategies

Households adopt a range of different strategies in order to cope with the impacts of the HIV and AIDs epidemic in sub-Saharan Africa.

Selling productive assets

A decline in labour and productivity in households can lead many families to sell their assets or shift to employment with lower earning potential in order to look after affected family members and to pay for medical treatment. Often, these types of strategies undermine the long-term financial stability of a household.

One study on the economic impact of HIV and antiretroviral treatment (ART) on individuals and households in Uganda reported that two-thirds of HIV-affected households had to sell at least some of their land, capital or household property to pay for treatment. Moreover, 67 percent required financial support from their family during treatment, with 38 percent still requiring this help after treatment.

Research from Zambia and Kenya found that while increased access to ART in sub-Saharan Africa is alleviating some of the stresses the epidemic places on households, it throws up other challenges. For example, many people who were able to fall back on their assets during their illness did not envisage a future, and therefore did not plan for one. As a result, by the time they were on an effective drug regimen, they often had to rely on loans from friends and relatives.

Restructuring households

As well as a decline in the number of adults of working age, the HIV epidemic has created a gender disparity, whereby women take on a growing burden of household responsibilities. Upon a family member becoming ill, women typically assume the role as carers, providers, as well as income earners, as they are forced to step into roles outside the home.

Grandmother and her orphaned grandchild

"I used to stay with the children, but now it is a problem. I have to work in the fields. Last year I had more money to hire labour so the crops got weeded more often. This year I had to do it myself." - Angelina, Zimbabwe

As a result, the epidemic has led to a rise in the number of female-headed households. In rural areas, research has shown how because of

cultural reasons, households led by women are in danger of losing land ownership and livestock upon the death of their spouse. In other cases, the death of a family member often forces poorer households to remove their children from school. School uniforms and fees become unaffordable for these families with the child's labour and income-generating potential considered more valuable.

“Because I’m a poor African woman, I can’t raise enough money for three orphans. The one in secondary school, sometimes she misses first term because I’m looking for tuition. The others miss schools for two or three days at a time. I had a cow I used to milk, but as time went on the cow died, so I can’t find any other income…” - Barbara, Uganda

Help from relatives

Relatives, particularly grandparents, are typically responsible for looking after orphaned grandchildren or children who fall ill as a result of the epidemic. They share in the burden of providing economic, emotional and psychological support at a time when they would themselves be expecting to receive more support in their older age.

This is a problem in places like rural Malawi where hand hoeing for subsistence agriculture is vital for food production, and requires workers to be physically strong. One study from this region found that 69 percent of elderly people sustained themselves through farming and similar activities. It also found that 79 percent of elderly people looking after orphaned grandchildren had limited or no information on HIV and AIDS, and that 31 percent of elderly people with these circumstances, were themselves, found to be dependent on their relatives for support.

http://youtu.be/HgemwIhbqPk

Religious and cultural coping strategies

One study from Uganda has highlighted the importance of spirituality as well as local service providers and social support to households affected by HIV and AIDS. In fact, 85 percent of women reported that spirituality played at least some role in helping them cope with the epidemic. 43 percent of this group indicated that spirituality, including support from other believers, prayer and trusting in God was the most important factor keeping them going.

Healthcare

In all severely affected countries, the HIV and AIDS epidemic continues to put pressure on the health sector. As the epidemic evolves, the demand for care for those living with HIV rises, as does the toll on healthcare workers.

Hospitals

At the height of the epidemic in sub-Saharan Africa, HIV was putting a serious strain on hospital resources. In 2006, people with HIV-related illnesses were occupying more than 50 percent of all hospital beds in the region.

However, in recent years, the dramatic scaling up of antiretroviral treatment in this region has reduced the burden of the HIV epidemic on hospitals. In one of South Africa's largest hospitals, in the 15 years preceding 2009, HIV prevalence among children admitted remained constant, peaking in 2005 (31.7 percent). By 2011, this had fallen, to 19.3 percent.

Healthcare workers

The epidemic also generates a demand for healthcare services, but large numbers of healthcare professionals themselves are directly affected. In the Democratic Republic of Congo, as well as an increasing demand for HIV services, there is a shortage of HIV and AIDS-related training and resources. Moreover, healthcare workers are at greater risk of HIV transmission if exposed to blood and other bodily fluids in the workplace where necessary precautions are not in place. Likewise, a survey of 1000 healthcare workers in three hospitals in South Africa showed how 20 percent of participants were at risk of HIV, tuberculosis and hepatitis from needle stick injuries or unprotected exposure to bodily fluids.

Home based care workers at the Missionvale township, South Africa

This is a particular problem in a region where the number of healthcare workers is already limited. Excessive workloads, poor pay and migration ('brain drain') to developed countries are among the factors contributing to this shortage.

Education

Schools have a vital role to play in reducing the impact of the epidemic. Between 2001 and 2012, HIV prevalence among young people fell by 42 percent in sub-Saharan Africa. Education is also one of most cost-effective means of preventing HIV transmission.

"Without education, AIDS will continue its rampant spread. With AIDS out of control, education will be out of reach." - Peter Piot, Director of UNAIDS

Schools and pupils

A decline in school enrolment is one of the most visible effects of the HIV epidemic in sub-Saharan Africa.

Children may be removed from school to care for affected parents or family members, or they may themselves be living with HIV. Many are unable to afford school fees and other such expenses – this is particularly a problem among children who have lost their parents (the income earners) to HIV and AIDS. At the height of the HIV epidemic in Swaziland and the Central African Republic, it was reported that school enrolment fell by 25-30 percent.

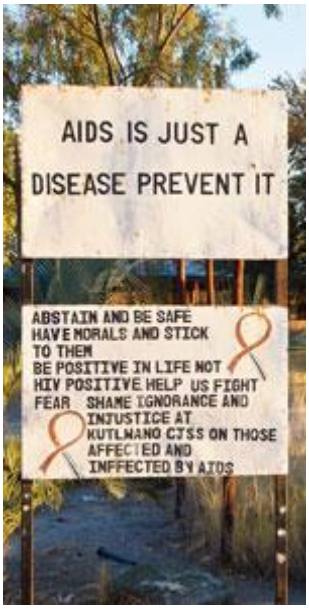
However, access to treatment can vastly improve this situation. In rural Uganda, a direct link has been made between the CD4 count (a measurement to see how strong a person's immune system is) and school attendance. The study found that children in households of adults with CD4 counts

above 350 cells/mm3 had 20 percent higher school enrolment rates than children in households of adults with CD4 counts of less than 200 cells/mm3. In fact, households of adults with high CD4 counts resembled those of HIV-negative participants in their ability to work and send their children to school.

Research has shown how education can have specific HIV-related benefits, especially if children have completed secondary level schooling that includes sex education and HIV education. They are more likely to know how to protect themselves from HIV infection, as well as delay first sex, marriage and childbearing.

Teachers

HIV and AIDS have had a severe impact on the already limited supply of teachers in sub-Saharan Africa. In some countries, more teachers die of HIV and AIDS related illnesses than are being trained. In 2007, the epidemic claimed the lives of 2000 teachers in Zambia. A study from 2006 in South Africa found that 21 percent of teachers aged 25-34 were living with HIV.



HIV/AIDS prevention sign outside a school in Botswana

Teachers who are affected by HIV and AIDS are likely to take periods of time off work. Those with affected families may also take time off to attend funerals or to care for sick relatives, and further absenteeism may result from the psychological effects of the epidemic. In this situation, their class may be taken on by another teacher, combined with another class, or simply left untaught. Even when there is a sufficient supply of teachers to replace lost staff, there can be a significant impact on the students.

This is particularly concerning given the important role that teachers can play in the fight against HIV and AIDS. One study showed how teachers can act as an important resource by referring affected children to available health and social resources by forming partnerships between the children and families, community volunteers and organisations. However, many studies continue to highlight how many sub-Saharan African schools are overcrowded, underfunded and poorly run as well as characterised by poor communication between parents, guardians and teachers.

An HIV-positive teacher with some of her students, Zimbabwe

Labour and productivity

The vast majority of people living with HIV and AIDS in sub-Saharan Africa are aged between 15-49 - in the prime of their working lives. Employers, schools and the healthcare sector are regularly training staff to replace those who become too ill to work. In 2012, a reported 4.7 percent of people in this demographic in sub-Saharan Africa were living with HIV.

The epidemic damages businesses through absenteeism, falls in productivity, labour force turnover, and the subsequent added costs to operations. Moreover, company costs for healthcare, funeral benefits and pension fund commitments rise as people take early retirement or die from AIDS-related illnesses. However, some companies have implemented successful programmes to deal with the impacts of HIV and AIDS. A cost-benefit analysis of providing antiretroviral treatment to HIV-positive employees in a large mining company in South Africa projected financial savings of up to 17 percent between 2003 and 2022. The company saved money through less absenteeism, more consistent production and reduced expenditure on sick pay, death-in-service benefits and training new staff. Similar schemes are thought to have potential in many parts of sub-Saharan Africa, however they may be difficult to implement in countries with particularly low wages and will depend on a company's benefits policy.

HIV and AIDS have also impacted upon labour and productivity of the rural economy. A decline in agricultural productivity can reduce the nutritional status of all household members. Households with low levels of capital, agricultural productivity and labour are particularly vulnerable to a deterioration in their quality of life.

Economic development

The combined impact of HIV and AIDS on households, healthcare, education and productivity in the workplace has stagnated, and in some places, even reversed economic and social development in sub-Saharan Africa.

From 1960 to 1990, increasing life expectancy in sub-Saharan Africa was estimated to be adding 1.7 percent to 2.7 percent yearly to gross domestic product (GDP). However, the HIV and AIDS epidemic is thought to have reduced economic growth by 1 percent annually in some countries in sub-Saharan Africa. This is due mainly to people leaving the workforce because of illness as well as lower overall productivity, leading to a fall in economic output and fewer tax receipts. This, coupled with the rising costs of healthcare, has put serious pressure on government finances in the region. One study indicates the cost of HIV and AIDS programs in six countries will exceed 3 percent of GDP by 2015.

Economic development in this region depends much upon the ability of these countries to diversify their industrial base, expand exports and attract foreign investment. By increasing labour costs and reducing profits, the epidemic limits the ability of countries to attract industry and investment.

The true impact and cost of HIV and AIDS on the economies of sub-Saharan Africa is difficult to measure. The worst affected countries were already struggling with a host of other development challenges, debt and declining trade before the epidemic started to impact upon the region. The HIV epidemic has exacerbated many of these issues.

The future of HIV and AIDS in sub-Saharan Africa

The severity of the epidemic in sub-Saharan Africa is linked to many other issues including poverty and a general lack of development. Efforts to fight the epidemic must take these realities into account, and look at ways in which the development of sub-Saharan Africa can progress. The HIV epidemic acts as a serious barrier to development. Wider access to HIV prevention, treatment and care services is needed in order to break down these barriers.

This page has outlined just some of the impacts of the HIV and AIDS epidemic in sub-Saharan Africa. Although both international and domestic efforts to tackle the epidemic have strengthened in recent years, particularly in the provision of antiretroviral treatment, sub-Saharan Africa will continue to feel the effects of HIV and AIDS for many years to come.

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