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Zambia, infectious diseases

Zambia: A journey to reducing the spread of infectious diseases like HIV

Zambia is a country in southcentral Africa landlocked by DRC, Tanzania, Mozambique, Malawi, Angola, Botswana, and Namibia. With high plateaus, the Zambezi River, and its Victoria falls (the largest in the world), Zambia is a beautiful country. Zambia has a population of 18,383,955 as of 2012, ranking it 22nd of the most populated countries in Africa. Zambia has a growing urban population percentage of 45.3%. “Zambia is governed by a presidential representative democratic republic. Where the president is the head of state, head of government and leader of a multi-party system” (Britannica). Although this incredible country has beautiful landscape, it also has its fair share of struggles.

Of the 58 percent of the land suitable for agriculture in Zambia, only 14 percent of that is used to plant crops such as maize, more commonly known corn. Corn makes up 20 percent of the country's GDP and is very vital to the people of Zambia. On average, large-scale farmers use about 123.553 acres of land for farming. That is as big as 93 football fields, unlike Iowa's 351 acres on average for farm size. But still, the country suffers from poverty and hunger, with one of the highest poverty rates in Africa.

According to Britannica, “Although Zambia lies within the tropics, its climate is modified by the altitude of the country and is generally favorable to human settlement and comfort. The marked seasonal pattern of precipitation is caused by the north and south movement of the intertropical convergence zone (ITCZ), which shifts with the Sun. In January, the ITCZ is in its southernmost position, and the rainy season is at its peak; by June it has moved north, and the weather is dry. Summer rains reduce the hot temperatures that might be expected at this time.” Temperatures in Zambia are modified by elevation. The highest temperatures are recorded in the valleys and the lowest temperatures are in the plateaus and scattered mountains.

The typical Zambian household consists of a father, a mother, many children, and sometimes grandparents. Most Zambian families live in small huts made with clay and wood. Zambians normally

eat on a diet that is built around a single staple food such as cassava, maize, or sorghum. These foods contain lots of carbohydrates which are a good source of energy. Food is obtained from farms or bought in the market. The main meal eaten in Zambia is corn and it can be made in many ways: roasting, cooking, frying, and grinding into a powder and mixing with hot water. But unfortunately, not all people have the money to buy those foods. Most Zambians work on farms and families share chores to get work done. Most people grow their food and sell it to get money. Food is usually hunted for, fished for, gathered, or just bought in the market.

The Zambian government offers free education from ages seven to fourteen, but parents are obligated to cover added costs. After that, secondary education becomes very costly. Healthcare is not affordable to everyone because of poverty and most hospitals do not have enough space to house their patients. Most citizens are unable to pay the hospital bills. Water has never been a problem for Zambians, but the lack of sanitation has made water sources inadequate and harmful to health. An estimated 4.8 million Zambians lack regular access to clean water and 6.6 million lack access to adequate sanitation facilities. These play major roles in childhood malnutrition and diseases.

A very deadly disease that is rapidly spreading and infecting Zambian citizens is AIDS or Acquired Immune Deficiency Syndrome. People with AIDS are HIV positive. HIV stands for Human Immunodeficiency Virus. Some factors that help with the spread of this virus are poverty, sexual violence, gender inequality, barriers to education, and family planning. In Zambia, more than one in ten women will be infected with HIV by age 24. Young men and women are very vulnerable to getting HIV due to the lack of education on how sexually transmitted diseases can be prevented.

HIV is a virus that, over time, develops into full-blown AIDS. HIV weakens the immune system and makes the infected vulnerable to other diseases and cancers. HIV does this by infecting vital cells in the human immune system, such as helper T cells (specifically CD4+ T cells). According to [advert.org](http://advert.org), "If HIV is left untreated, it may take up to 10 or 15 years for the immune system to be so severely damaged that it can no longer defend itself at all. However, the rate at which HIV progresses varies depending on age, general health, and background." UNAIDS says that "women are disproportionately affected by HIV in Zambia: of the 1,200,000 adults living with HIV, 700,000 (58.33%) were women. New HIV infections among young women aged 15–24 years were more than double those among young men: 13,000 new infections among young women, compared to 5,600 among young men. HIV treatment was higher among women than men, however, with 83% of adult women living with HIV on treatment, compared to 69% of adult men."

HIV rates in Zambia have been going up from 980,000 adults in 2012 to 1.2 million people as of 2018, and this is due to the population growth of Zambia. This is also because of the lack of education about the dangers of HIV. Other African countries such as Botswana, Kenya, and South Africa are taking steps that are significantly lowering the rates of the infection. The only way Zambia can solve this problem is to follow the steps that these other countries are taking. Zambia also needs to tackle social norms that serve as a barrier in educating its population on the dangers of unprotected sex. HIV and AIDS might not seem to affect the environment of first world countries, but in Zambia, it does.

With HIV patients being sick, they cannot work on farms, which means they cannot plant crops that can clean the atmosphere.

AIDS affects individuals and their ability to work. People with AIDS are less motivated and very weak, forcing the family into poverty. Because of this poverty, they would not be able to pay hospital bills and get an adequate supply of food and water. With a weakened immune system, people with AIDS need more nutrients and medicine. Feeding the infected patient and the rest of the family is ridiculously hard for the family to cope with. Sometimes, if not enough caution is used, it can end in the death of the individual. With parents unable to provide children with food and other necessities, the younger population in Zambia is affected greatly. Some Zambian mothers have taken steps to help protect their child from this infection with early infant diagnosis. According to UNAIDS, “More than 95% of pregnant women living with HIV accessed antiretroviral medicine to prevent transmission of the virus to their baby, preventing 8800 new HIV infections among newborns. Early infant diagnosis—the percentage of HIV-exposed infants tested for HIV before eight weeks of age—stood at 71% in 2018.”

Organizations like UNAIDS “seek to boost global and national HIV prevention leadership and accountability and Fast-Track the implementation of effective HIV prevention programs at the country level by guiding effective approaches to achieve the prevention targets of the 2016 Political Declaration, which include ensuring access to combination prevention options, including condoms, PrEP, harm reduction and VMMC to at least 90% of people at risk by 2020, especially young women and girls in high-prevalence countries and key populations, reaching 3 million people at high risk with PrEP, reaching 25 million men with VMMC and making 20 billion condoms available in low- and middle-income countries”(UNAIDS).

There are numerous issues affecting the food insecurity of Zambia. However, there are solutions that can help tremendously in the fight to end hunger.

First, it is imperative that the citizens of Zambia become educated about the prevention of the pandemic of AIDS they are currently facing.

A lack of educating the Zambian community had been a huge set back to stopping the problem of the HIV and AIDS pandemic. For there to be any change, Zambia needs to take steps in educating its population on the dangers of unprotected sex. According to advert.org, “Zambian society and culture is extremely patriarchal, limiting the power of women in relationships. Women experience gender-based violence (GBV) and are often not in control of their sexual and reproductive health (SRH). Young women are significantly more likely to have an older partner who may be living with HIV already; they are also likely to experience their first sexual intercourse at a younger age. Education attainment is also higher among young men than young women, which means men are more likely to be exposed to HIV education” (advert .org). Many young girls are deprived of education because Zambians believe that girls do not need education and all they need to know how to do is make babies and do housework. This is highly unfair because 16-year-old girls are forced into

early marriages and this is very dangerous for the girl and her child. Advert.org says, “there are still many misconceptions about HIV and AIDS in Zambia. The latest data suggests that just 39% of people have comprehensive knowledge of HIV, despite 90% having heard of the virus. Knowledge is slightly better among young people (aged 15-24) with around 42% of young women and 47% of young men having comprehensive knowledge on HIV. The Zambian education system is not putting a stress on educating its population on the dangers of this virus.

Teachers that know about HIV and AIDS do not include it in their curriculums, further shadowing children from the truth. Educating Zambian children on the dangers can help them stay aware of the threats that come with AIDs. Educating the population is probably one of the best ways to solve this problem and can benefit the country. With a smarter, healthier population, Zambia can expect a growth in the population which can vary beneficiary to the country's economy.

In addition to education, increased testing for AIDS is a must.

According to advert.org, “A study in 2012 found several reasons explaining why people were not testing, including fear of HIV-related stigma, rejection by their sexual partner and fear of antiretroviral treatment.” This, as a result, keeps people in the dark on their health status. With knowledge of their status, one can take steps to treat oneself and not infect others. Many religious and social norms in Zambia are indirectly preventing people from testing for the virus because of a stigma and rejection from not only their partners, but also family. In 2017, the Zambian government made HIV testing compulsory for any person seeking medical treatment in public health facilities. The move was met with criticism from civil society organizations who argue that compulsory testing is illegal, unethical, and unconstitutional, and may discourage people from seeking healthcare of any kind (advert.org). People unwilling to test is making this situation much worse. Even though Zambia is taking some steps on addressing HIV and AIDS, it still is not enough. Advert.org says “HIV testing remains complex and dysfunctional, especially where access is limited by limited opening times at testing facilities, and a lack of testing equipment. A lack of drug resources has also led to rationing, stock-outs, and inadequate ART regimes for people living with HIV, particularly children. Not only does this pose serious health issues for people living with HIV, but it also increases the likelihood of onwards HIV transmission to others. If the Zambian government gives attention and shows the importance of testing for the virus, many lives can be saved, and this can help with food insecurity and give citizens hope for a better future.” The lives of many Zambians can be made better if adequate testing is put in place.

Finally, protecting oneself against this pandemic is necessary.

In addition to testing, more people must use protection when participating in those acts. Avert.org says that “Zambia’s provision of free condoms in health facilities was intensified in 2014 with the number of free condoms available more than doubling from 7.8 million in 2013 to 19.6 million in 2014. Zambians are most likely to use condoms with non-regular partners. However, condom use is still relatively low as only 50% of adults used a condom the last time, they had high-risk sex. Condom

use is higher among men engaging in high-risk sex (at 55%), compared to women (at 41%). Further work is needed to educate and persuade people to use condoms with all sexual partners, especially if they are in multiple concurrent relationships, or change partners regularly. Condom use is thought to be even lower among young people. A study published in 2017 among young people in four urban areas of Zambia found that 59% did not use a condom the last time they had sex. Young people living in poorer areas were more likely to report non-use. Existing

policies around the age of consent are thought to contribute to those under 16 is unable to access and use condoms even if they are sexually active. Public sector condoms are mainly distributed through health facilities which leads to limited access by the general population. Also, logistical challenges and inadequate funding results in an inconsistent and inadequate supply of condoms in government-run programs.” The Zambian government can combat this by putting more funding into prevention of AIDS. If that happens, more individuals can prevent the spread of the infection and they can live a healthy life, safe from this pandemic.

If all these steps are taken, problems like hunger and malnutrition will not be a problem because more people will be healthy and able to work. If more people work, this can create an economic advantage to poor families and the country. Zambia is a beautiful country that is filled with so many natural resources, but the lack of proper governing is taking all that beauty away. Zambia can restore that beauty and reduce poverty and hunger by first curing the sick.

With the world population expected to rise drastically to 9 billion people by 2050, humans will need to produce more food than they have in the previous 10,000 years combined. It is imperative that we figure out ways we can feed this world and end hunger and malnutrition on this sacred planet.

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