South Africa is a country located at the southern tip of Africa with a land area of approximately 1,214,470 square kilometers (CIA World Factbook). It is a little under twice the size of Texas. It is bordered by Mozambique, Swaziland, Namibia, Botswana, Zimbabwe, and the Atlantic and Indian oceans. Despite the fact that South Africa is a peninsula, its land is mostly composed of an interior plateau with rugged hills and a narrow coastal plain. Even though 79.4% of its land is used for agriculture, 64.8% of the population lives in urban areas (CIA World Factbook). The population is settled between six major cities: Johannesburg, Cape Town, Durban, Pretoria, Port Elizabeth, and Vereeniging. According to a July 2015 estimate, the population is approximately 53,675,563 (CIA World Factbook).

Many of South Africa’s problems come from their history of apartheid. Apartheid was the complete racial segregation that occurred in South Africa between 1948 and 1994 (History). Even though the apartheid laws are a thing of the past, the cultural history and practices derived from the laws still cause racial divisions today. One of the major racial divisions comes from the Bantustans, black settlements, which were set up in 1959 to separate black South Africans from one another (History). This enabled the government to claim that there was no black majority, and it reduced the likelihood that a national organization would be formed from the black population. South Africa transitioned to being a constitutional democracy in 1994 where the new constitution gave rights to blacks and other racial groups (History). Currently, the biggest political parties are the African National Congress (ANC) with 249 seats in the National Assembly and the Democratic Alliance (DA) with 89 seats in the National Assembly (South Africa Info). The new South African government must fight the divisions created in the past to implement unified solutions to national issues.

The South African diet consists mostly of low-fat, high-fiber foods like corn porridge and vegetable stews (NPR). South Africans in formal urban communities can usually purchase food at small general dealers, spaza shops, and street vendors (NPR). However, in informal urban communities it can be much more difficult to find food (Oxfam). The school system in South Africa seems strong, as illustrated by literacy rates that are extremely high, 94.3% (CIA World Factbook). However, literacy just means that they can read and write, but does not include at what level they comprehend the information. This may be why there is conflicting information between the literacy rates and the press and state provided information regarding the status of the education system in South Africa.

The South African education system is currently struggling. In addition to a huge drop out rate, 213,000 (out of 800,000) children failed their end of school year examination (BBC edu). Some students get packed into mini-vans and driven long distances to schools that were formerly, during Apartheid, in white-only suburbs. (BBC edu) In South Africa school life begins in grade R (reception year) and ends after grade 12 (matric year). However, according to the South African Schools Act of 1996 school is required from grade one to the end of grade nine and all further education is through technical, community, and private colleges ending many kids’ education at age fifteen (southafrica.info). The level of education received is definitely not due to
underfunding. In fact South Africa spends about 6% of its GDP on education, which is more than any other country in Africa (BBC edu).

Despite the fact that South African cities are quite cosmopolitan, many citizens do not have the means to live comfortably. In fact, according to a 2012 estimate, 35.9% of the population lives below the poverty line and 25.9% of the population is unemployed (2015 estimate) (CIA World Factbook). Major industries in South Africa include automobile assembly, metalworking, mining, chemicals, machinery, iron and steel, fertilizer, foodstuffs, textiles, and commercial ship repair (Oxfam). Despite these major industries, 66% of the labor force works in services (Oxfam).

With a median age of 26.5, South Africa harbors a relatively young population. There is an average of 2.33 children born per woman, but approximately 33 infant deaths for every thousand live births, compared to 5.87 in the United States, thus indicating a serious problem with healthcare (CIA World Factbook). Further indication of a healthcare problem is the physician density, which is only 0.78 physicians for every 1,000 people, meaning that there is a lack of doctors for the amount of medical concerns within the population (CIA World Factbook).

South Africa has one of the highest HIV/AIDS adult prevalence in the world. The adult prevalence rate for HIV/AIDS is 18.92% compared to 0.79% in the world (CIA World Factbook). One probable cause for the high HIV/AIDS prevalence rate is the lack of adequate health care. HIV (Human Immunodeficiency Virus) is an infection that is transmitted through bodily fluids. It weakens a person’s immune system by destroying T cells, which makes it hard for people with HIV to fight off even the simplest infections, such as the common cold. If HIV goes untreated, the disease progresses to AIDS (Acquired Immune Deficiency Syndrome) whereby, the patient gets very severe forms of illnesses known as opportunistic illnesses (CDC). South Africa has the highest number of people living with HIV/AIDS, 6,836,500 (2014 est.), in the world with 3,597,900 more infected persons than Nigeria, the country with the second highest rate.

Infection rates are higher among women than they are among men in South Africa. In fact, overall HIV prevalence is doubled among women in comparison to men overall, and it is quadrupled for young women aged 15-24 (AVERT). Young women between the ages of 15 and 24 account for a quarter of those infected with HIV/AIDS in South Africa. The main reason for women having higher infection rates of HIV than men is the low status of women. This leads to sexual assault, sex trafficking, poverty, and gender-based violence. Along with the low status of women being a cause for high HIV rates, the low status of orphans also puts them at higher risk for HIV (AVERT). Many orphans in South Africa are forced to have sex in exchange for support, and therefore become sexually active at younger ages (AVERT). Orphans are even at a higher risk of becoming sex workers, and female sex workers have an HIV prevalence of 40-88% (AVERT).

HIV/AIDS mostly affects the labor force, people ages 15-50, and therefore has a direct impact on the income of a household. The income of a family directly influences how much food they are able to purchase or produce Poor nutrition can affect in even lower labor productivity, agricultural productivity, employment, and the ability to earn living wage. At the many spaza shops, small, informal convenience stores that are usually family run (Collins Dictionary), the food is often low quality and out of date, making it hard for many South Africans to find nutritious food. Most of the food produced in South Africa is high in starch and carbohydrates and highly processed, making it very difficult to access adequate nutrition (Oxfam).
The HIV/AIDS crisis is not a new problem. The awareness has led to many more people being tested. Because more people are being tested there is a rise in the number of identified cases, allowing more people to receive proper treatment and the epidemic to improve. Treatment is now also more accessible to those of a lower socio-economic standing than it was previously. Between 2008 and 2012, testing has increased from 19.9% to 37.5% among men and 28.7% to 52.6% among women (AVERT). This increased testing supports the wealth of information pointing to the conclusion that using Universal Test and Treat (UTT) with a treatment of Antiretroviral Therapy (ART) will help lessen the problem considerably. Since one of these studies was first implemented in parts of South Africa, the average life expectancy went from 49.2 years to 62.34 years, a 13.14-year increase (Science). ART is a combination of HIV fighting medications that are prescribed to help fight off individuals’ HIV and support their immune system. With less HIV in the body, people are able to more easily fight off infections and cancers. ART also lessens the risk of transmitting HIV (Overview).

UTT is the most effective way to approach the problem. However, it is still not as effective as previously thought because of the lack of knowledge towards HIV/AIDS. In fact, many teachers have refused to teach about HIV/AIDS, causes, and prevention, denying many children from ever having any formal education (AVERT). The teachers refuse to teach about HIV because of a non-scientific belief that many South African cultures have (AVERT). Also, many people who need treatment, such as homosexual men, are afraid to identify as such and get the treatment that they need because of the high levels of homophobic violence within South Africa (AVERT). To counter this fear, South Africa has put in place laws that forbid discrimination against the lesbian, gay, bisexual, and transgender (LGBT) community in the prerequisites for the provisions of ART, giving South Africa the potential to become a world leader in combating HIV/AIDS in homosexuals (AVERT).

Through mathematical modeling, UTT and ART were originally predicted to take seven years to implement (Granich et al.). Further studies have been found to take seven to twenty-five years to be fully effective. Since there is a gap between the predicted time of treatment and true time of treatment, it would be best to have a multi-pronged approach (Hontelez et al.). This approach includes treatments of secondary illnesses (tuberculosis), education through adult centered programs, and to help prevent HIV on a basic level a higher distribution rate of female, as well as male, condoms will help in addition to ART through UTT.

In order to implement this solution, it is key to take advantage of the fact that the government of South Africa pays for most of the treatment (AVERT). Due to the high prices of the medicine, the government saved about $613 million dollars by switching its provider (AVERT). To move this further, I would suggest that South Africa take the initiative to start producing and distributing ART treatments itself to reduce the cost, expand job opportunities and allow more people access to the treatment. Since ART is a combination of multiple medicines, anti-tuberculosis medication (or other secondary illness medication) should be added to the daily regimes for individuals suffering with tuberculosis (or another illness) in addition to HIV/AIDS. To do this the government would have to allocate the finances to assure that ART is provided in the highest risk areas. The government would also need to hire key scientists that have worked with this sort of medicine previously to set up the facilities and then train South Africans for drug production. In addition to creating these labs to continue to heal the nation, they would need to allocate funds for high quality health coverage and ensure that current organizations that provide health care are supported financially and with proper resources. Proper resources include the treatment and materials to educate those that they help.
Medical treatment alone is a long road. South Africa should implement a program of adult education to make sure that everyone is aware of medical treatment and prevention. Strong programming, such as Khomanani and loveLife for children and young adults, are already in motion, but programming for adults can help raise awareness in those that are already sexually active (AVERT). This education is extremely important, considering a recent study showed that 53% of men have never used a condom (AVERT). These education programs would help both men and women to not only be informed about the epidemic from a medical standpoint, but also have access to STD preventatives. Another reason these adult education programs are so important is because of Ukuthwala. Ukuthwala is an AIDS cleansing practice that causes thousands of babies to be raped per month. The myth is that having sex with a virgin will cure AIDS. Ethnologist Suzanne Leclerk-Madlala wrote in the African Journal of AIDS Research that, “the belief that HIV/AIDS can be cured as a result of sex with a virgin has been identified as a possible factor in the rape of babies and children in South Africa.” (Censorbugbear.org) The resources for education can come directly from the same labs that create the treatment so that everyone is on the same page about what is going on and how it can be dealt with.

I suggest that we assure the coordination of the works of non-governmental organizations (NGOs) and governmental organizations to provide medical treatment and education. The first AIDS NGO in South Africa was the AIDS-foundation of South Africa and is still in operation today. Since they are best established within South Africa and they currently only work on a community level (AIDS Foundation), I believe that if they expand to a national level, which they have the infrastructure to do, it would help unify HIV services and set the groundwork for other NGOs to do the same. Other NGOs that could have a positive impact are the Bill and Melinda Gates Foundation, AIDS Consortium, AIDS Law Project, and Care South Africa-Lesotho. To be sure that the government which would be producing the ART (in my solution) and the NGOs that are providing the education (in my solution) and communicating and working with one another, the World Health Organization should help bridge the gap and coordinate the effort.

Combined with HIV/AIDS crisis, South Africa also suffers from many other social problems. The main issues are those of racial and gender inequality. Due to the years of separation with Apartheid, South Africa is still a very racially divided country. White households earn six times more than black households despite the fact that black household income has increased by 170% in the last decade alone (BBC). Gender inequality is a major issue, a result of which is gender-based violence aimed toward females. The female homicide rate was five times higher than the global average in 2009 (Gender Equality).

HIV/AIDS reverses human development and increases poverty. Improving the HIV/AIDS epidemic will help increase the workforce and, therefore, decrease the poverty levels within South Africa, thus improving the overall lifestyle. My solution to the South Africa AIDS epidemic is a multi-pronged approach that includes the making of ART by the government in South Africa, the providing of adult education and awareness by NGOs, and an increased distribution of condoms. By coordinating all of these efforts under one organization, it is hoped that the crisis will be solved in less than the 24 years predicted by the math model.
Works Cited


Hontelez, Jan A. C., Mark N. Lurie, Till Bärnighausen, Roel Bakker, Rob Baltussen, Frank Tanser, Timothy B. Hallett, Marie-Louise Newell, and Sake J. De Vlas. "Elimination of


