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 Mozambique, Factor 16: Education

Mozambique: Education's Role in Combatting HIV/AIDS and Malnutrition

Romano grew up listening to his father's horrendous stories from his past which would frighten anyone. In the year of 1984 his father, Zapuel, came into this cruel world that didn't offer him anything other than a harsh future. Zapuel's father, Nolak, was involved in Mozambique's civil war that lasted for 15 years. The feud left a million people dead engendered by war and starvation. Mozambique was mangled from the inside, leaving millions without government supervision and health aid. ^[1] Zapuel caught word of a new affliction attacking humans; the HIV/AIDS virus. Zapuel grew up assisting his mother in agriculture, since his father had vacated to participate in the war. In 1990, HIV was spreading throughout the country like water slipping through a net. Despite those who stepped in to advocate for them, the disease would not stop. Zapuel was only six, but he could vaguely recall the effects of this horrendous disease. There were splotches over the bodies of individuals and they had an uncharacteristically white tongue; he didn't know what it was, but he knew to stay away from people like this. His mother told him they were dangerous and he would also get sick if they touched him. ^[2, 3] In 1992, the civil war ended, but Zapuel's father did not come home. They lived in Chupanga ^[4], which was a mile from the Zambezi River. Zapuel became the person who took responsibility after his father died; he was the one who obtained food for his siblings and his mother. Despite the ravaged country and chaotic circumstances, he would soon meet Majara; a simple woman from a northern province, who would give him three children.

Romano is taking a sip from a simple wooden bowl his mother hands him. He is a very malnourished child;



he's lucky if he takes in around 450 calories a day. He is about eleven years old and looks as if he was seven; this is due to his growth being stunted from lack of proper nutrients in his diet. His stomach is bloated, caused by the excess amount of fluid buildup in the abdomen; his ribs are showing under a thin layer of skin and his large brown eyes are bloodshot. He watches his mother retract the bowl of water from him to share with his younger sister. His father is in the fields trying to make a suitable income that would barely get them by. His sister, Onyeka, and he go to a family friend that teaches them simple things, but it is not enough. ^[5, 6]

As multiple countries are underdeveloped, they face several barriers that block their abilities to achieve food security, have a decent income, or have medical services. A large percent of the higher income population is based around larger cities, such as Maputo for example. They aren't fortunate enough to be able to trek to a grocery store; they depend on home-grown food or livestock. The typical family spends a yearly gross of 1,764 American dollars, most of which goes towards food and clothing. A close estimate of

70% of the population lives in rural areas, the 30% living in the urban areas being the wealthier class. An average family has five people in it, but this average causes hardship. In America, the average family is of three persons, but with a population of 300 million; Mozambique has a population of 22 million people. In Mozambique, around 70% of people live under the poverty line. Where there is poverty, there are large numbers of malnourished children. In this country, one in two children under the age of five are malnourished, and the life expectancy for adults is an average of 49 years. With a population estimate of 26 million, 1.5 million people have HIV/AIDS. Imagine if these people were in the state of Iowa which has population of 3 million, statistically speaking, for every two people, one of them would have HIV/AIDS. Now think of Hawaii, which has a population of 1.45 million. *Every person would possess the deadly virus.* [7, 8, 9]

Zapuel came home one day and laid five, dirt-covered sweet potatoes on the table that were a very vibrant orange color. Romano wondered how much they cost him; they didn't have much money. Majara was cradling a four-month-old infant, Saburo, in her long, skinny arms. Zapuel made it a priority to feed his wife a larger quantity of food, since she must feed Saburo from the breast. The local medical center recommended Majara breast feed until Saburo reached six months^[10], so he could receive a decent number of nutrients before he was provided mashed up sweet potatoes and corn that his father rarely brought home.



In a country like Mozambique with a pervasive disease, what happened to Majara should have been no surprise, especially since there are only three doctors and 21 nurses for every 100,000 people.^[11] When Romano's younger sibling Saburo was born, Majara was taken to the closest medical attention they could get in a fifteen-mile radius; it was in Inhambitanga. Jahub Malentioeste had some medical training from his father who ran the alternative medicine clinic; it wasn't much, but it was enough to get them by. After Saburo came, Majara started to talk to a local man who was infected with AIDS. He did not know he was sick, but he should've been checked when his partner died five years before from the complications of HIV and kidney disease. Majara had sexual relations with this man; the outcome was the ruination of her family (African cultures believe in having multiple partners, which increases the passing of diseases between individuals). [2, 3, 8]

Majara's legs and arms were very thin; they resembled sticks. She hadn't told anyone about the small red patches appearing on her groin, that she was having chronic diarrhea, or that her tongue started to turn to a white color. She wasn't educated, but she knew she had a predicament. Her body was shutting down; she was so tired that she could barely stand. One day when Zapuel came home, she was holding Saburo in a chair, listening, when she started to seize. She fell on the ground, thrashing, and the infant rolled away crying. She was taken back to the medical clinic, where she was diagnosed with AIDS. A Mozambique governmental CDC (Center for Disease Control and Prevention) medical officer informed her of her condition and expectations of her future. In a couple months, she would pass away from the contraction of Tuberculosis (bacterial disease of the lungs). The CDC has been working with Mozambique, starting in 2007; their main ambitions are to help dismantle the HIV/AIDS virus, as well as TB and Malaria.^[12]

As a married couple, Zapuel had sexual relations with Majara; he contracted AIDS. As multiple people with HIV/AIDS, they seemed to get several opportunistic infections due to their ravaged immune systems.

Mosquitoes were an antagonist to HIV/AIDS patients, bringing multiple diseases that would destroy a person's health; diseases such as malaria and dengue fever were familiar in most communities.^[2]

About five months passed after Majara's death; Saburo also died due to the infection of AIDS from breast feeding. When a child breastfeeds off a mother that has a disease, they have a 16% chance of contracting that disease. Zapuel couldn't leave the house; his body was shutting down and he became bedridden. This situation is very common; various, or all, family members will become sick enough their bodies cannot endure the heat and humidity of the daily life. The situation of sick family members puts pressure on the children and healthy individuals; this may lead to the children dropping out of school to assist family or becoming a victim of child labor.^[10]

Romano had to find food to help them survive, but water was not a problem. It had become the rainy season, where the river was overflowing, and water was easy to get. The food, on the other hand, was harder to obtain. He started to work on a small farm across the community, gathering food and resources for a man, who instead of giving money as payment, gave him sustenance. Romano's family never had a job other than simple farming. Majara worked with other maternity figures in her town to support their families, as well as their partners. Some barriers that families face to employment is just simply being too far away from larger civilizations. The communities inside of Mozambique are so evenly distributed, that an average village will be forty miles or more from the closest metropolitan city. The geographical location also cuts back on food supply, because they aren't able to visit a grocery store as leisurely as Americans do.^[7, 13]



Romano's family was still in the grieving process from the loss of a mother and sibling. Onyeka became ill with malaria. Malaria is treatable, but because of the state of their penury, Onyeka's body did not recuperate in just a week. It took around a month for her to get better. She was ordered to keep a far distance from Zapuel. On top of being constantly hungry, their father was extremely ill, and Onyeka and Romano knew their father wouldn't be around much longer. In just a year,

a family was torn apart. Romano was the only one who didn't contract a deadly disease; Onyeka became slightly healthier and relied on her brother to help feed and take care of her. Their father passed away, leaving them alone in the world. The two children were orphans now and no one took them in; the people in the small village of Chupanga avoided these children. Everyone thought they would bring illness to them. A worldwide organization, SOS Children's Villages International^[14, 15], came to Chupanga; this organization works in various countries around the world, dedicated to giving children an education. (In a personal interview with the Mozambique branch, they informed me how these children are recruited, brought to these camps, and what is done to help them in their education). In summary, Onyeka and Romano were collected and sent to Beira. In this town, there is a Children's Village where they would receive an education that would help them in their future.

In Mozambique, the literacy rate is 48 percent, and child labor is extensive (the government in 2013 passed a movement to put a halt to child labor, National Plan of Action for Children^[16], but is very ill-defined). One of the main reasons that HIV/AIDS has spread throughout the country exponentially is a correlation to the lack of education in most of the population and the consistent malnourishment. An individual who knows how to take serious precautions is safer than a person who isn't aware how the disease works or is transmitted. A solution to the failed education system in Mozambique would demand the involvement of the government to teach these children how to read, write, do simple math, etc. This country's main language is Portuguese, and only about 48% of the people can read and write at a basic level. In

Mozambique, a high percentage of students enroll in primary school, but drop out to help their families. Some can't receive an education due to their geographical location. ^[7]



The distribution of education is a necessity to preserve the future for incoming generations. Education, especially in Mozambique, is so poor, because there is not enough resources to help create facilities to administer teaching of certain topics. 70% of the population lives in rural areas, and this part of the population is equally distributed across the nation. This factor is how education is so scarce; some villages may not possess an adult who can instruct adolescents.

In Romano's position, if both he and Onyeka would've had an adequate education system, they would have learned agricultural procedures and how to protect themselves from diseases. Multiple organizations in the world could fund Mozambique in agriculture, such as the FAO (Food and Agriculture Organization), United Nations, or International Fertilizer Development Center. ^[14] In their education, if they had classes along with their common-core in agriculture, they would obtain the necessities on how to feed themselves at a younger age. A town similar of Chupanga, which is located near a river could irrigate water to their vegetation planted during the dry season ^[13]. Now, corresponding with teaching younger children agriculture, this does not mean they are to learn these methods and then be expected to perform child labor. The government has restrictions on child labor, but it has loopholes. A solution would be to require anyone under the age of sixteen to attend school to receive as much education they can. Also, if sexual education was in their common core system, this would obstruct Mozambique's STD infection rates, resulting in a cut of the national STD rates and unplanned pregnancies. ^[3, 17, 18, 19, 20, 21] In the fight against HIV, a person can take medicine to lessen the effects of the virus; people live longer periods of time while taking these drugs, but they do not cooperate when the patient isn't healthy. ^[22] (In a personal interview of two doctors, Dr. Ojiagku Ikezuagu and Dr. Robert Blount, agreed that AIDS and malnutrition go together, since the medication needs a proper diet to achieve its purpose.) Sexual education has proven to decrease the rates of infections and youth mortality from STDs in developing countries; even though condoms aren't something that are available to everyone in these countries, we can increase their availability (even though some men neglect the use of protection, due to the downplay of their masculinity or it being against beliefs). ^[23] The increase of education on agriculture will soon increase the amount of food being created, leading to economic growth. Economic growth also correlates with the amount of money a person lives on, allowing individuals to have more money in their pockets. If the economy grows, this will reduce the poverty rates in a country. It's all connected and whence one progresses forward, it all carries each other. ^[24, 25]

In countries such as Mozambique, the government isn't the only main factor that needs influenced. These regulations, stated previously, wouldn't necessarily be aimed directly at cultural norms, but would be for a simple education on human disease and agriculture. If this education is implemented into the adults and children of a small, poor community in Mozambique, it will allow others to have comprehensible sexual education and allow them to grow food more sustainably. The citizens of the country will play a large role in keeping newly applied laws and/or regulations in order, so the governmental military, or globally known organizations (Peace Corps, UNICEF, etc.) would have to help enforce new rules to keep a fluent plan. A good government is just as effective as cooperative citizens. Mozambique could ask other countries for help, or use their own militia to help coerce citizens into using these regulations. The Mozambique government could also work out a plan that would incorporate the military branch, by allowing governmental authorities to travel across the nation, assisting poor communities in the distribution of

education and proper agricultural procedures; the country of Mozambique is largely into corn production; if they are taught the proper ways of rotation farming, this will increase crop sustainability and production.
[26]

If Romano's parents would have received the proper assets, such as sexual education, Majara would have known better to not have unprotected relations with a man whose medical history she did not know. If Romano would have attended a school that taught a more descriptive agriculture education, he would have supported his little sister and himself after his parents passed by growing his own food, or possibly working at a farm to make an income on the outskirts of town (which he did, but didn't understand the procedures). Romano was given an education from the SOS, which enabled him to return to Chupanga, giving him the skills to teach individuals on agriculture. In ten years, Romano has helped cut the malnutrition in half, because of the production of food and livestock increased exponentially.

The Mozambique government can allow an organization, the SOS in particular, that would teach individuals in smaller communities and allow the younger generation to grow. SOS workers are trained to an extent on how to grow crops, understand foreign language, and teach children. In return, more children would receive an education in all aspects of the world. The SOS villages will be funded in order to increase availability across the country. Instead of being 300 miles from the nearest village, they'll be 50 miles away. This will allow more children to receive an adequate education and allow the country's literacy rate to grow. If a country like Mozambique put money into organizations, something with the essence of SOS, but was more focused on giving a strict education to every child, they would have an outcome that would be worth the money. The Mozambique government could reach out for assistance from Portugal; these two countries are cooperative. Portugal could assist a government led organization, in efforts to help administer education; the two countries share the same language, which would guarantee a decent outcome. The rates of people going to college and attending secondary school would increase, improving their literacy rates. In order to go out in the world, they must take a test to be able to stop going to school. In the U.S., a child must be enrolled until the age of 16, where in Mozambique they drop out between nine and twelve. Education is the foundation for the people in any country, so, simply put, without a good education system, there's not a good infrastructure. In order to help this underdeveloped country and its problem with AIDS, education, and food scarcity, it needs to start with education, and progress forward. It's similar to a domino effect; whence one problem is solved, others will soon follow, such as education, to malnourishment, to hunger, and then human disease. America is fortunate to have a good education system, but that doesn't mean we can't lend a hand. People can't solve these problems in one day, but over time they will be able to improve and elaborate on their current predicaments. Education is key in anyone's life, especially if they want to be healthy or heedful of the problems they face; it will equip individuals with knowledge and allow them to be prosperous in facing their problems.

References

1. Robert J. Blount, MD, MAS/ Assistant Professor/ Pediatric & Adult/ Pulmonology; Critical Care Medicine/ University of California San Francisco. Robert was in the Peace Corps in Kenya.
(Robert is the son of Ross and Lorena Blount)
2. Ross and Lorena Blount- (Peace Corps volunteers in Nigeria in the 1960's. Lorena is an English teacher; she helped me revise my paper, tackle certain topics, and revise my solution.)
3. Ojiaku Ikezuagu, MD- works at Wayne Community Hospital as an MD. Dr. OJ goes on several medical mission trips to West Africa in Nigeria; he also goes home to see his family. He provided me a personal interview, and was very informational.
<http://www.waynecountyhospital.org/medical-staff/ojiaku-ikezuagu/#>
4. Americo Branco- a SOS CVS worker and director. (Gave me links to locations on information on SOS and facts and statistics on the SOS camps.)
5. Simoa Chatepa- a SOS CVS worker and director. (Gave me links, informed me on problems that children face in these countries, and how these children are taken to these orphanages.)
6. Uamusse Nelson- A SOS CVS worker and Director in Mozambique. (He told me the different locations where camps were, how these children came to the care of these orphanages, and what was done to protect them.)
7. Timothy Robbins- an English professor at Graceland University. He helped me work on my citations and gave me feedback on my paper.

I emailed around twelve organizations, and only got a few emails back, but the few who did message back gave me great information and resources for my paper. I contacted Aid for Africa, Southern African Development Center, and the FAO, since they have extensive work in Mozambique.

Picture Citations

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1. Fabiola Estrada and Marijose Gonzalez, Weebly 2017
<http://stopmalnutritiontorreon.weebly.com/what-is-malnutrition.html>
2. Perry-Castañeda Library Map Collection, 1995,
<http://www.lib.utexas.edu/maps/mozambique.html>
3. Pemba, Mozambique <http://www.sos-schools.org/africa/mozambique>
4. The first children in SOS Children's Village Beira, SOS Children's Village Beira <http://www.sos-childrensvillages.org/where-we-help/africa/mozambique/beira>

Bibliography

1. "Mozambique: Civil War." (2015). *Mass Atrocity Endings*, WordPress, sites.tufts.edu/atrocityendings/2015/08/07/mozambique-civil-war/. Civil War information.
2. "HIV/AIDS." (2015). *World Health Organization/ Africa*, Regional Office for Africa, , www.afro.who.int/en/mozambique/country-programmes/disease-prevention-and-control/hiv aids.html
3. "HIV/AIDS, Other STIs, and Teen Pregnancy: Group-Based Comprehensive Risk Reduction Interventions for Adolescents." (2009). *The Community Guide*, www.thecommunityguide.org/findings/hiv aids-other-stis-and-teen-pregnancy-group-based-comprehensive-risk-reduction-interventions
4. Black, C. (2001). "Health and Water Top Priorities in Mozambique's Chupanga Camp." *La Federación Internacional de Sociedades de la Cruz Roja y de la Media Luna Roja*, www.ifrc.org/es/noticias/noticias/afrika/mozambique/health-and-water-top-priorities-in-mozambiques-chupanga-camp/
5. Nelson, E. (2015). "Malnutrition in Mozambique." *The Borgen Project*, Borgen Project, , borgenproject.org/malnutrition-mozambique/
6. "Malnutrition in Mozambique." (2015). *The Blog, Borgen Project*, borgenproject.org/malnutrition-mozambique/ Discusses the problems in Mozambique with malnutrition and sickness in younger children.
7. "Facts about Mozambique." (2016). *World Division*, WorldDivision, www.worldvision.org/our-work/country-profiles/mozambique. Accessed 23 Jan. 2017. Explains how sickness is involved though unclean water, how Mozambique is free of landmines, and the country's lifestyle.
8. "Mozambique survey shows high prevalence of HIV/Aids." (2010). *Mail & Gaurdian*, Mail and Guardian Online, , mg.co.za/article/2010-07-06-mozambique-survey-shows-high-prevalence-of-hiv aids

9. *World Health Organization*, (2015). 2015 WHO; Regional Office for Africa, ,
www.afro.who.int/en/mozambique/who-country-office-mozambique/who-in-mozambique.html
10. "Breastfeeding", Facts for Life, <http://www.factsforlifeglobal.org/04/6.html>
11. "Training in Mozambique." (2017). *Amref Health Africa*, , amref.org/standup/en/midwifery-training/training-in-Mozambique/ (3 doctors, 21 nurses)
12. "Global HIV & Tuberculosis." *Centers for Disease Control and Prevention*, U.S. Department of Health & Human Services, www.cdc.gov/globalhivtb/where-we-work/mozambique/mozambique.html
13. "Climate and Agriculture." *Our Africa*, www.our-africa.org/mozambique/climate-agriculture.
14. "Charity Organizations that work in Mozambique." (2017). *Aid for Africa*, ,
www.aidforafrica.org/?cat=120&type=member-charities
15. "SOS Children's Village Mozambique." (2015). Greenhour, <http://leonardodicaprio.org/sos-childrens-village-mozambique/>
16. "Bureau of International Labor Affairs." *U.S. Department of Labor*,
www.dol.gov/ilab/reports/child-labor/findings/2012TDA/mozambique.pdf. (Explains the situation in Mozambique on child labor and how severe the problems are.)
17. "American Teens' Sources of Sexual Health Education." (2017). *Guttmacher Institute*, ,
www.guttmacher.org/fact-sheet/facts-american-teens-sources-information-about-sex
18. "Characteristics of an Effective Health Education Curriculum." (2015). *Centers for Disease Control and Prevention*, U.S. Department of Health & Human Services, ,
www.cdc.gov/healthyyouth/data/shpps/pdf/shpps-508-final_101315.pdf
19. "Comprehensive Sex Education: Research and Results." (2009). *Advocates for Youth*, ,
www.advocatesforyouth.org/publications/1487
20. JG, B. "HIV/AIDS Prevention and Treatment." (2006). Afterword. *Disease Control Priorities in Developing Countries*, edited by Jamison DT, 2nd ed., New York, Oxford UP, NCBI,
www.ncbi.nlm.nih.gov/books/NBK11782/

21. Kannangara, R.W. "What Can Be Done to Stop the Spread of AIDS among African Children?" (2009). *York College*, www.york.cuny.edu/academics/writing-program/the-york-scholar-1/volume-5.2-spring-2009/what-can-be-done-to-stop-the-spread-of-aids-among-african-children
22. Annan, R., and Turyashemererwa, F. "Treatment of Severe Acute Malnutrition in HIV-infected Children." (2011). *World Health Organization*,
23. Eliakimu, V. E. "Culture and Condom Use." (2009). *Medicus Mundi Schweiz*, www.medicusmundi.ch/de/bulletin/mms-bulletin/culture-and-condoms-integrating-approaches-to-hiv-and-aids/kondome-unter-die-menschen-bringen/culture-and-condom-use. Cultures neglect using condoms, due to their cultural beliefs and religions
24. "AfDB's Vital Role in Africa's Transformation." *African Development Bank Group*, www.afdb.org/fileadmin/uploads/afdb/Documents/Development_Effectiveness_Review_2016/ADER_2016_-_07_Chapter_5__En_.pdf. (Projects that show education is a solution to the Africa's problems on HIV and how the agricultural production increase will increase economic growth.)
25. "Africa's Learning Crisis." (2012). *Africa Can End Poverty*, World Bank Group, blogs.worldbank.org/africacan/africa-s-learning-crisis
26. Improving Food Security through Crop Rotation in Mozambique [Blog post]. (2015, December). Retrieved from USAID of the American People website: www.satradehub.org/food-safety-and-production/35-improving-food-security-through-crop-rotation-in-mozambique