

Tiffany Braun
Boone High School
Boone, IA
Sierra Leone, Factor 12: Human Diseases

Sierra Leone: Diminishing Human Diseases

The country of Sierra Leone is located on the West coast of Africa, with a population of 4.7 million, the majority of which are children (Countries and Their Cultures). It is rich in precious resources like diamonds and gold, however the country is not profiting because of poor management, leaving the country in poverty (Countries and Their Cultures). Sierra Leone must overcome a litany of obstacles. Sierra Leone is not able to help its citizens due to a large amount of debt (Countries and Their Cultures). Over 60 percent of the country is living in poverty, meaning few people have access to clean water, electricity, adequate sanitation, and health services (African Health Observatory). Due to the amount of people living in poverty, countless Sierra Leoneans do not have formal education, and are illiterate (Statistics Sierra Leone and ICF Macro). Thirty-one percent of children aged five through eleven are involved in child labor (Statistics Sierra Leone and ICF Macro). Just like any other country, Sierra Leoneans hold religious beliefs with Muslim being the dominant practice, followed by 30 percent with indigenous beliefs, and 10 percent with Christian faith (Countries and Their Cultures). Sierra Leoneans value family and land; more children equals the opportunity to own more land. Nonetheless, it is up to the elders to decide who gets the land (Countries and Their Cultures). The land that almost everyone wants is great for growing crops and raising livestock, of which the most popular are rice and sheep (Larbi). Unfortunately, the land is not worked at full capacity due to the health of the workers. One in seven children die before reaching the age of five, and 27 percent of women die from maternal causes (Statistics Sierra Leone and ICF Macro). With the country in this condition, people are battling diseases like malaria, tuberculosis (TB), and the Human Immunodeficiency Virus (HIV), which leads to Acquired Immunodeficiency Syndrome (AIDS). A leading factor of these widespread human diseases is the insufficient access to clean water. Around 40 percent of the hospital deaths for children five and under were from malaria, a treatable disease (African Health Observatory). The extent of the diseases is something that can be changed, since most of the diseases are treatable with medicine.

A typical Sierra Leonean family is not what many people in Western Civilization would imagine. M. Douglas Henry provides the following information in his article: most of the marriages are arranged, however love marriages are now more common. Many of the husbands are polygamous, meaning the husband will have more than one wife. The first wife controls the family and the younger wives instills order and organization into the family. The families have many children and in a way they are seen as an investment; when marrying, the groom will pay the family a price for their daughter. With Sierra Leone's short life expectancy, the bride is often married off at a young age, making the mother's average age nineteen years old (Statistics Sierra Leone and ICF Macro). With the family unit as it is now, it can lead to multiple problems related to human diseases. For example, many mothers are uncertain whether they have HIV and therefore, can transmit the virus to the unborn child while pregnant. The father can also transfer HIV to his multiple wives, infecting more people. Due to these family conditions, it is important to diminish the impact of human diseases.

The essential food is the same throughout most of the country. A normal meal consists mainly of rice and some green leafy vegetables, and cassava root (Encyclopedia Britannica Online). Rice is a huge part of the Sierra Leonean culture and they eat it at practically every meal (Countries and Their Cultures). Rice is as common as bread is in western cultures. The rice gets prepared numerous ways, including different sauces, meats, and vegetables (Countries and Their Cultures). While rice is the main food eaten, it does not offer a significant amount of nutrients. A family cannot always afford to have enough for everyone to eat, leaving the mothers hungry. Along with not getting enough food to eat, many villages will also have a

taboo on eating or preparing certain foods (Countries and Their Cultures). The taboos are different in every village: “These are usually attributed to a law handed down from someone's ancestor, perhaps the founder of the village” (Countries and Their Cultures). Violating the taboo is a great offense against the village and acquires the ill-feelings of the elders (Countries and Their Cultures). The taboos are just a part of what makes the Sierra Leonean culture so unique. With any great culture there are also problems that cause concern: people with HIV and malaria are not getting the extra nutrients and medicine that they need. The deficit in nutrients is also causing more people to get sick.

The culture of Sierra Leone views education quite different from the United States. As stated in the article “Sierra Leone” written by the Children of Nations, “[education] is not necessarily valued by the culture, especially for girls.” This creates an unwelcoming atmosphere for girls at school, and sometimes even boys, which leads to many of the men and women having little to no education. Fifty percent of men have received no education, and only 45 percent of men are literate (Statistics Sierra Leone and ICF Macro). Women on the other hand, find it even harder to go to school with two-thirds having received no education, and only 26 percent are literate (Statistics Sierra Leone and ICF Macro). The low literacy rates lead to a country without much understanding of what is going on in their own country and the rest of the world. The secondary education rate for both men and women is extremely low (Statistics Sierra Leone and ICF Macro). Since almost everyone in the country has not received secondary education, it is hard for people within Sierra Leone to have professional jobs. Even after their civil war ended in 2002, most of the children still receive no formal education. The reason for these low education rates is because many of the families can not afford to send their children to school, and thus lose their free labor. Education is also not available in every community (Encyclopedia Britannica Online). Considering that not much of the population is educated, it is hard to find people to teach in the schools. Many of the families are subsistence farmers, and need the whole family to work in the fields (Encyclopedia Britannica Online). Improving education will help everyone’s daily lives, including farming and the understanding of human diseases.

Healthcare in Sierra Leone is severely limited, and even nonexistent in some communities (Encyclopedia Britannica Online). Before the healthcare facility decline in 1991, the national health facilities only reached approximately 35 percent of the population (Countries and Their Cultures). Part of the reason there are few healthcare facilities is because the government allows less than 1 percent of its annual spending to benefit the healthcare system (Countries and Their Cultures). To compensate for the lack of healthcare facilities, many people use specialists, like a Muslim-based ritual specialist or a herbalist (Countries and Their Cultures). Not only does the country lack healthcare facilities, they also lack healthcare workers; many workers fled to seek safety during the civil war and have not returned due to the low salary (Brady). The country greatly suffers from the lack of healthcare providers: “there is one lone pediatrician for the entire country” (Brady). Needless to say, people are dying from treatable diseases because they do not have the money to afford lifesaving treatment or the healthcare facility is not close to their home (Brady). Families living in rural areas most likely never see a healthcare facility because the facilities are concentrated in the cities. The healthcare facilities are also lacking in important supplies like gloves and donated blood (Brady). Those supplies are needed to keep healthcare workers from getting hepatitis or HIV, and to give lifesaving treatments. The healthcare facilities need to be improved in order to reduce the country’s high mortality rate. Healthcare facilities also need to be more accessible to farmers who cannot reach the facilities, since the distance is too great.

A great many of the farmers are subsistence farmers, and they are not receiving the many benefits that farming offers. Sierra Leonean farmers have between 0.5 and 2 hectares of land for farming (Larbi); while an average farmer in the United States has 178.5 hectares of land to work with (“Agriculture Fact Sheet”). Their lack of land severely limits the amount of crops that could be produced. Nearly every farmer grows rice, and many others also grow cassava, groundnut, maize, millet, palm oil, and sweet potato (Larbi). The perennial crops that are also grown include sugarcane, citrus fruits, cocoa, and coffee (Larbi). Their

total crop yield tends to be low, not only because of the farm size, but also due to the lack of laborers, pest problems, and the lack of agricultural machinery (Larbi). With practically every farmer having a low crop yield, the farmers are not making enough money, forcing them into poverty. Not only do they grow crops, but they also raise livestock. It is more prominent for the farmers in the north to raise cattle, while most of the country raises sheep, goats, and chickens (Larbi). The prevalent breed of cattle is the N'Dama, which has low productivity in producing milk and calves, however they are very hardy (Larbi). A majority of the goats and sheep are of the West African Dwarf breed. The animals are usually left to roam around in flocks, and receive little food and shelter from the farmer (Larbi). With more laborers, machinery, and modern techniques, these farmers would have higher productions. If the livestock were taken better care of, the farmers would receive more profit.

Most of the farmers only grow enough food for their family, and if they are lucky they will have a bit left to sell at the market. This means that the farmers are making little to no money. The women take care of almost all of the crops, while the men take care of the livestock (Abdelrasoul). Most of the seeding, planting, and caring is done by hand with a hoe, ax, and cutlass (Abdelrasoul). The way that farming is done now takes a lot of hard manual labor, leaving the people thirsty and hungry. Due to the resources that they have available to them, they do not use any fertilizers, herbicides, or insecticides (Abdelrasoul). If they could use some of the resources unavailable to them, they could increase the amount of crops they are producing. Most of the plants are rain-fed, and the farmers use the shifting cultivation farming system (Larbi). This is where the land is cleared and then farmed until it loses its fertility and then left to be reclaimed by the wild ("Shifting agriculture"). The land is normally at rest more than it is used for farming ("Shifting agriculture"). Since the land rests more than it is farmed, the farmers are losing out on the opportunity to increase their total crop yield.

Human diseases affect the food available because the people are too sick to go to work or cannot work a full day. Since people cannot work due to their illness, the full potential of the farm is not reached, because it is lacking one or more of the workers. Most of the farms are run by a poor family that does not have the money to hire someone. Not only does this affect food availability, but it also affects the quality of the food. With the lack of workers, the crops do not receive all of the care they need, resulting in a lower quality of food. People are even less likely to buy food from someone that has HIV/AIDS, lowering the amount of food that people have available to them.

AIDS has devastated the country, and has left 18,000 children without parents ("General Information on Sierra Leone"). These children feel lost and abandoned. Depending on their age, either the extended family takes the children in or the eldest child takes care of the family ("General Information on Sierra Leone"). The extended families are most likely living in poverty, but they still accept the extra burden. Over half of the men and women said they would take care of a family member that has HIV (Statistics Sierra Leone and ICF Macro). While a family member will help the HIV positive family member, the community is less likely to buy crops from them; lessening the amount of income (Statistics Sierra Leone and ICF Macro). Further difficulties for the family occur with the mother-to-child transmission of HIV through breastfeeding (Statistics Sierra Leone and ICF Macro). HIV and AIDs are not the only diseases causing harm to the family; malaria is also one of the leading diseases. If a mother has malaria while pregnant, the child is most likely to have a low birth weight, other birth complications, or death. Malaria is the most common reason for children to go to the hospital, and is the leading cause of death ("General Information on Sierra Leone"). These diseases are leaving the family with the loss of a loved one and reducing their income.

Presently, the life expectancy is forty-seven years due to the prevalence of the different diseases (African Health Observatory). About 43 percent of children aged six months to five years have malaria (National Malaria Control Programme). Around 56,000 people have HIV ("HIV and AIDS Estimates"). The prevalence of malaria is decreasing, however the severity of other diseases is increasing. In 2003 there

were 500 cases of malaria for every 1000, and in 2007 there were 330 for every 1000 (Sambo). On the other hand, HIV and AIDs are becoming more of a threat. In 2007, the severity of HIV and AIDs nearly doubled from what it was in 2003: jumping from 2.5 percent to 4.4 percent (Sambo). TB is also increasing, however the treatment success rate is also improving (Sambo). These facts show just how bad the health of the country is, and that Sierra Leone is in desperate need of help.

By reducing the prevalence of human diseases, Sierra Leone will benefit immensely. The country will be able to prosper and people will live longer healthier lives. The farmers will be able to increase production by having workers that are healthy. Having more people available will also increase the food quality by having people closely take care of the crops. Helping families with human diseases will allow them to become healthier and be able to work. With more of the country working, families will be able to send their children to school, and increase the amount of professional jobs in Sierra Leone.

Water scarcity affects human diseases by worsening the overall health of many people. Sierra Leoneans do not have easy access to water, and the water that they do have access to is normally contaminated with bacteria-causing diseases. This bacterium is making more people sick, and the people who have diseases find it even harder to get healthier. Not only is there bacteria, but mosquitoes are attracted to water that is stagnant, allowing more people to become infected with malaria. Even in developed countries people who do not drink enough water, or drink unclean water, have health problems. Clean water is essential to life, just as clean air is beneficial to breathe.

The problem of human diseases can be effectively addressed by educating people about signs, symptoms, and effects of the disease. An obstacle to overcome with educating the people is getting them to see the whole picture. To help minimize the chances of contracting malaria, it is best for every person to have a insecticide-treated mosquito net, along with taking an antimalarial drug at the start of the symptoms. Next includes vaccinating people who are most likely to have HIV. Research is close to developing a vaccination for HIV, however it is hard to get the right one because it is an extremely complex virus (Engel). Following vaccination would be administering advance medications to people with HIV, malaria, and TB. These medications will help the patients with their symptoms and will even cure some of the diseases. One of the most promising solutions is to utilize gene therapy on either the HIV virus or the T-cells of the human body (Engel). The therapy would include manipulating the HIV virus to be dormant and not affecting the body in anyway. Doing gene therapy on the T-cells would change the cell, so that the HIV virus cannot attach itself to the cell and control the T-cell, an important part in fighting diseases in the human body (Engel). While gene therapy is the most promising solution, it will take several years before it will be readily available; this makes it important to start developing the right genetic enhancement while working on the solutions previously mentioned. Implementing any of these possible solutions will greatly benefit the country and lead to higher food security. To help increase food security even more, growing nutrient dense crops that have a high nutritional value, longer shelf life, and yield more will help the citizens get all of the nutrients they need in a few crops. In order to grow crops that have a high nutritional value the soil needs to be tested to determine the minerals lacking, and then add the minerals through biological stimulants (Kittredge). Also important is that the family is taught more modern ways to farm. That in return will lower the amount that the family needs to spend on food, creating a happier, healthier family. This will lead to a healthier country, resulting in more people healthy enough to work. In return, it will increase the amount of food that is produced. None of this will be able to happen without the help of more health workers.

One local organization that could be up-scaled is the Civil Society Movement Against Tuberculosis. The organization advocates prevention, along with providing early diagnosis and treatment for people in Sierra Leone (“Stop TB Partnership General Information”). This organization has been successful by helping prevent the spread of TB, by providing early diagnostic tests. Many of the Sierra Leoneans do not completely understand diseases like HIV and TB, and just by educating them will significantly help lower

the severity of HIV, malaria, and TB. Many times people do not know that with HIV it is possible to contract TB, a lot of the times they end up dying because they do not have the medicine available to them (“Stop TB Partnership General Information”). By expanding the Civil Society Movement Against Tuberculosis to other cities and increasing their budget, they will be able to treat more people with TB and prevent numerous deaths. The organization is also a great resource to help educate people about the disease, and to give them a better understanding of the diseases.

The community can help by openly accepting change and the aid that they need, and also helping build and run medical facilities. One important step is that the community gets involved and helps with the educating of the country. Large corporate business can help by donating money to help fund the cost of the medicines and the cost of administering the medicine. They can even start up programs that will allow people to receive education if they later work for the company. The government can be of assistance by achieving better management and using the extra money to help cover the costs of medical care and treatment. They would also be of great help in encouraging people to get the treatment they need.

The families can help by using the information they learn from the educational organizations to have a better understanding of the disease and to advise themselves when to seek medical attention. They can also use the information to help others that are suffering from the diseases. It does not cost any money to get involved in helping raise awareness for these diseases. Sierra Leoneans should encourage all of the organizations that are trying to make a difference in the fight against human diseases, by volunteering and participating in all of their programs. Families should encourage the government to help with the issue of human diseases; they can do this by writing letters to the government expressing their concerns about the issue. These solutions will not be successful without the affected family members seeking out the medical care that they need, and being compliant with the medicine that they need to take. The families should also receive the vaccination to help avoid getting the disease at a later time.

With the help of the community, government, organizations, and families, the problem of human diseases can be diminished. Through educating the citizens about the signs, symptoms, and the best treatment options, people will be more aware of the diseases and have the right information to help them decide what to do. Educating the country will cost little, however it will help solve many of the problems related to human diseases and positively impact the country. Educating can be done through the government and outside organizations. Along with education, giving vaccinations to people that are at a high risk for HIV will help contribute to lowering the death rate from HIV/AIDS. An easy way to treat people with TB, malaria, and HIV, is to give them advanced medications that have been developed. A long-term solution is to manipulate the HIV virus making it dormant, or enhancing T-cells to block the attachment of HIV. In order to diminish human diseases the community needs to be open to receiving the aid, and it would help immensely if the community would build and help run new medical facilities. By helping the family grow nutrient dense crops and help them transition to more modern farming techniques, they will be able to increase the amount of nutrients they receive as well as increasing crop yield. Without the help of local organizations like the Civil Society Movement Against Tuberculosis, the treatment and education of the diseases would not be able to be accomplished. All of these solutions will need funding and with the help of large corporations and the government, they can receive the funding they need. Businesses can also help by getting involved with the solutions and helping contribute to a better life for the country. Nonetheless, these solutions will not work unless the families will use the education and receive the treatment that they need. Without the families being actively involved, the solution is like presidential campaign promises. Sierra Leone is a country worth helping because of their unique culture and their potential to succeed. Their health status will be able to improve, creating a happier, healthier place to live. It will also allow Sierra Leone to prosper and enjoy the riches that most of the world takes for granted.

Works Cited

- Abdelrasoul, Ahmed, and Abigail Childs. "Pioneering High-Yield Rice Production in Sierra Leone." *Columbia SIPA*. The West African Rice Company, 17 May 2013. Web. 17 Mar. 2016.
- "Agriculture Fact Sheet." *National Ag Day*. Agriculture Council of America, 2016. Web. 16 Mar. 2016.
- Brady, Nancy. "Healthcare in Sierra Leone." *ONE*. 26 Jan. 2010. Web. 15 Mar. 2016.
- Engel, Mary. "HIV Cure Research Today: Gene Therapy, Molecular Scissors and Where's Waldo." *Fred Hutch*. Fred Hutch Cancer Research Center, 14 Aug. 2015. Web. 18 Mar. 2016.
- "General Information on Sierra Leone." *SOS Children's Villages*. SOS Children's Villages International, 2016. Web. 18 Feb. 2016.
- Henry, M. Douglas. "Sierra Leone." *Countries and Their Cultures*. Ed. Melvin Ember and Carol Ember. Vol. 4. New York: Macmillan Reference USA, 2001. 1982-1993. *Global Issues In Context*. Web. 14 Mar. 2016.
- "HIV and AIDS Estimates." *UNAIDS*. UNAIDS, 2014. Web. 18 Mar. 2016.
- Kittredge, Dan. "Nutrient Dense Crops." *Bionutrient*. Gaia Fund, Dec. 2009. Web. 26 July 2016.
- Larbi, Asamoah. "Sierra Leone." *Sierra Leone*. Food and Agriculture Organization, Aug. 2012. Web. 16 Mar. 2016.
- National Malaria Control Programme (NMCP) [Sierra Leone], Statistics Sierra Leone, University of Sierra Leone, Catholic Relief Services, and ICF International. 2013. Sierra Leone Malaria Indicator Survey. Freetown, Sierra Leone: NMCP, SSL, CRS, and ICF International.
- Statistics Sierra Leone and ICF Macro. 2009. Sierra Leone Demographic and Health Survey 2008: Key Findings. Calverton, Maryland, USA: SSL and ICF Macro.
- Sambo, Dr Luis G. "WHO Country Cooperation Strategy." *World Health Organization*. World Health Organization, 2009. Web. 18 Mar. 2016.
- "Shifting Agriculture." *Encyclopedia Britannica Online*. Encyclopedia Britannica, 2016. Web. 17 Mar. 2016.
- "Sierra Leone." *African Health Observatory*. World Health Organization, 2014. Web. 18 Feb. 2016.
- "Sierra Leone." *Children of the Nations*. Children of the Nations International, 2016. Web. 15 Feb. 2016.
- "Sierra Leone." *Countries and Their Cultures*. Advameg, Inc., 2016. Web. 15 Feb. 2016.
- "Stop TB Partnership General Information." *Stop TB Partnership*. Stop TB Partnership, 26 May 2015. Web. 18 Mar. 2016.