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Somalia, Cholera

## **Somalia: The Country of Cholera**

Somalia is ranked one of the poorest countries in the world. Therefore, there are many issues that occur in the country like unhealthy hygiene techniques, corrupt health care, and impoverished sanitation. One massive issue Somalia suffers from is the disease, Cholera. Cholera is a very dangerous illness, and it has caused many Somali deaths. Somalia is in great need of help to decrease death rates by narrowing down the cases of Cholera. Notable efforts have been made by global, non-profit organizations such as: UNICEF, World Health Organization (WHO), and Actions Against Hunger.

Known to sit on the “horn” of Africa, Somalia is a country positioned on the far eastern point in Africa. Positioned in the northeastern area of Somalia are the massive mountain ranges of Ogo and Golis. Very rugged land, the mountains start in Somalia and end in Ethiopia, which is the neighboring country to the west (Hassig and Cavendish, 1997). An isolated desert-like environment stretches across the country. Throughout the country, the layout is described as very dry grassy plains (World Book Inc, 2005). The climate in most of the country is considered very hot and dry, which causes frequent droughts throughout the year. There are, however, great floods that occur as well (Hassig and Cavendish, 1997). Currently, the population of Somalia is 16,211,510, where 46.8% is urban, and 53.2% is rural. (Worldometer, 2021) The government is labeled as Federal Parliamentary Republic (Sawe, 2019).

The overall lifestyle of a Somali is considered a hard livelihood. An average Somali lives to the age of 53, and many die from infectious diseases. Somali most commonly cannot get appropriate health care, clean water, or reliable sanitation (Triolet, 2019). A lifestyle in Somalia is very nomadic and the normal housing are huts made out of natural resources; wood with dirt floors. On average, 6.8 people resided in the huts. (“Somalia - Housing”, n.d.). Women are expected to stay home, cook and prepare meals, and take care of children. They are, however, constantly in danger of becoming rape victims due to lack of gender-based freedoms. It is common for females to walk long distances to gather water (Triolet, 2019). Men on the other hand are expected to keep families safe and gather financial needs to survive (Lewis, 2009). Jobs in Somalia are commonly agricultural, such as herding and fishing, telecommunications, and manufacturing. The average monthly wage for agricultural jobs is 156,000 SOS (270.23 US dollars) and telecommunications at 228,000 SOS (394.96 US dollars) (“Find out how to get a job and work in Somalia”, 2015; “Gardening / Farming / Fishing Average Salaries in Somalia”, 2021).

Diets consist of carbohydrates like maize, sorghum, rice, wheat, and pasta (“Nutrition-Sensitive Diet in Somalia”, 2020). Protein, when able to obtain, is camel and goat meat, fish, and camel and goat milk (Somalia: Food and Drink, n.d.). There is usually not a lot of nutritional value to the common meal (“Nutrition-Sensitive Diet in Somalia”, 2020). Only 16% of the population has access to electricity, therefore, most of the Somali population uses fire or charcoal to cook meals (“Somalia: Power Africa Fact Sheet”, 2020). Somali travel to the local markets that give them access to food supplies. Thankfully, Somalia has been able to keep up with the tradition of local markets. From jewelry to food supplies, families travel to the nearest market to supply for their everyday needs. Markets are held either day to day or on the weekends (“Somalia — Shopping and Leisure”, n.d.).

Currently, Somalia is trying to rebuild their destroyed educational systems. The systems were destroyed in the past years because of wars between tribes and civil wars. Due to the wars, Somali had no other choice than to abandon the educational systems because of lack of money and safety risks (“Our Work in Somalia”, n.d.). Unfortunately, Somali have no concrete system for health care as well due to many underlying causes. According to Bogren et al. (2020). “Inequality, poverty, traditional and cultural practices plus the heavy burden placed on healthcare providers are described as the underlying causes of the poor provision of quality care...”. Somalia does not have the education, support, people, or good financial health to have a successful health care program. Therefore, Somalia has one of the lowest overall health rates in the world. WHO (2015) states, “The immunization coverage rate for measles is 46% countrywide and even lower in hard-to-reach areas. Only one in three Somalis have access to safe water; one in every nine Somali children dies before their first birthday; and the maternal mortality ratio is 850 deaths per 100,000 live births.” According to Gele et al. (2017), healthcare is financially expensive due to the inappropriate treatment of “prescription drugs, the tendency to conduct unnecessary laboratory tests, excessive use of higher diagnostic technologies and overcharging.”

In Somalia, access to sufficient water and toilets is almost nonexistent. Pulling data from 53 out of the 72 districts in Somalia, in July of 2019, out of 10,783 households, 32% did not have access to sufficient water sources (“Somalia: Water, Sanitation, and Hygiene Assessment Report”, 2019). 52% of the overall population has access to only basic water supplies. Water sources are still very unreliable and can be unsafe. Somali are forced to retrieve water at a great distance and/or from an unsafe outlet of water (“Water, sanitation and hygiene”, n.d.). According to the Food and Agriculture Organization of the United Nations (2014), in rural areas people retrieve water from “surface dams, boreholes, shallow wells and springs, often distributed by donkey carts to households.” Water is also unsanitary because many Somali defecate out in the open. This allows excretion to travel into the water that people use to cook with and drink. According to The World Bank (2017) WHO and UNICEF reported that 48.58% of the rural population and 1.16% of the urban population defecate in the open.

This leads to the issue of Cholera. Cholera is a highly contagious life-threatening disease that causes diarrhea and severe dehydration. It is known to affect people who do not have clean water, clean food, or healthy sanitation. Therefore, since Somalia does not have a healthy status of sanitation, clean water, or clean food, it is very common to have outbreaks of this disease. Cholera is also spread very easily due to the crowded lifestyle in Somalia. The disease can affect people of any age and can cause death within hours. Unfortunately, due to lack of money, health care, and clean water, it is hard for people of Somalia to independently get Cholera treatments themselves. Treatment of Cholera is rehydrating the person back to health by oral rehydration solution (ORS). They also receive antibiotics to reduce the diarrhea symptoms of Cholera and shorten the amount of time the Cholera virus is in their body. Thankfully, there are programs like WHO EMRO that makes it possible for Somalis to receive Cholera treatments (“Cholera”, 2021).

As a result of cultural roles, comparing females and males, females are more likely to get Cholera. Females are more vulnerable to Cholera because they are touching the food that is being prepared for meals, retrieving water for the household, and doing the house chores like cleaning dishes (Kanem, 2017). As a result of weaker immunity, older and younger generations are more affected by Cholera. (Institut Pasteur, 2018). According to UNICEF (n.d.), “In the past 3 years, more than 900 people in Somalia, majority of the children under the age of five, have died from cholera.”

Not only does Cholera greatly affect people, but it contaminates the environment. In Somalia, people defecate in the open and their excretion runs into the water. This process contaminates the water and the land making water supplies an unhealthy environment. Since Cholera is extremely contagious, it flows in the water and people develop Cholera rapidly because they drink and cook with the water directly from streams (“Cholera: Environmental risk factors”, n.d.).

What has been done to help the issue of Cholera? Organizations like UNICEF, WHO EMRO, and Actions Against Hunger have made impacts to improve the status of Cholera. For example, UNICEF is temporarily giving safe water access to people in Somalia (Grieve, 2017). The World Health Organization (WHO) partnered with the Ministry of Health and gave out vaccines to certain districts in Somalia. Since February 2nd, 2020, 621, 875 Somali have had the Cholera vaccination (“Outbreak update: Cholera in Somalia, 2 February 2020”, n.d.). Lastly, Actions Against Hunger is an organization that helps Somalia’s hunger issues. The organization has helped build outhouses with natural resources and taught Somali how to keep them in good shape for future generations, which in turn provided safety and decreased the amount of people defecating in the open by 18% (WATER, SANITATION & HYGIENE, n.d.). All of these organization are successful because they have had the insight, the support, and the funds to advance their plans. They understand the benefits of educating the public about their projects, making sure to report the status of their projects.

My solution to decrease the cases of Cholera is to really focus on improving the base of where Cholera is spreading from: unsanitized toilets and water. Therefore, working with Actions Against Hunger to build outhouses on a grander scale and teach Somali the positive effects of outhouses would really decrease of the deadly spread of Cholera. The first step would be to hold meetings to teach local Somali how to independently build the outhouses. Somali who have been taught how to effectively build the outhouse can then show other people how to do it, and a ripple effect will start to occur. Somali everywhere will start to be aware of building outhouses instead of defecating in the open. Providing information of the dangers of Cholera and how to manage to spread will be very important. Groups will be created where Somali can create their own community outhouses, providing a sense of pride to the people that contribute in making the outhouses. This solution would benefit almost all people of Somalia due to the fact that everyone needs a clean, sanitized place to defecate.

One of the simplest, inexpensive, and multi-purpose outhouses that would be the most convenient to build, would be the compost latrine. Basing my plans off the article by Sebastian Africano (2016), the compost structure is raised about three to four feet above the ground with concrete cinder blocks. The sitting surface would need to be big enough for two toilets. Inside the brick base are two hollow sides with a brick barrier in the middle, allowing each side to hold one toilet. The building would contain a vent to help circulate air flow and continue to dry the solid matter. On the outside of the latrine, people would have accessible doors to each side to collect the compost made from human feces. Finally, the walls of the outhouse could be made with resources like tin, clay, wood, or cinder blocks. For safety purposes, the door to the latrine would have a sturdy lock mechanism to protect whoever is using the outhouse. In addition, a safety consideration would be to place the latrine in a populated area where many people can see and hear if someone is in trouble.

Hypothetically, a person would go into the outhouse, defecate into the toilet, and throw sawdust, ash from fires, and/or wood chips into the toilet to help the compost process and the smell. People would use only one toilet until the base is full, and then they would move over to the other side and use the opposite toilet. The full toilet would sit for approximately six to nine months turning into rich fertilizer that can be

used for agricultural purposes. The rich fertilizer would be removed from the latrine, dried under the sun, and eventually mixed with a 1:1 ratio of soil ready for usage. Urine would be processed separately. In the middle of the two toilets, a divot would be built in the floor where people are expected to urinate and the urine runs off into a holding jug (Africano, 2016). According to Atlee et al. (n.d.), this urine is able to be directly poured onto the soil of plants for nutrients thirty days before harvest. If the plants are eaten raw, it is highly recommended to be incorporated into the soil for safety. The science that makes this method safe is the maintenance of time of storage, temperature, acid levels (pH), and amount of moisture. With the correct levels of this component, the pathogens, which is the bacteria in the feces, should be inactivated making the compost safe for usage. The longevity of these outhouses would depend on the material used for building, and the correct maintenance being practiced (Naughton et al., 2019).

Thinking realistically and looking towards the future, it will need a strong determined team. The project will require different people that have a variety of backgrounds e.g. architecture, environmental science, a Somalia professional, teaching, and/or healthcare. Of course, anyone is able to contribute to this project. Once there is a strong group established to succeed in the same goal of building outhouses in Somalia, presenting this project to The United Nations would be the next wisest goal. We would inform The United Nations about teaching Somali how to use natural resources to create the outhouses, inform Somali about Cholera, and fund ideas. Finding funds to implement this project would be the biggest struggle. Unfortunately, since Somalia does not have the funds to fully support this project, we will have to bring in monetary needs through other organizations and countries.

Funding for this project will start with awareness of the issue. Ways this project could be funded could include: social media, churches, and grant funding. While researching this sanitation project, Actions Against Hunger was the only other organization that I found doing the same project. Advertising the need for this project online and providing the appropriate information would definitely help secure more funding. Creating social media pages like Facebook, Instagram, and Tik Tok could bring forth much interest from the public as well as donations. We could post online progress with the project and inform the public of the struggles in Somalia while still being respectful of their culture, lifestyle, and privacy. I think it would be advantageous to partner with a person from Somalia that is knowledgeable of Somalia's culture, lifestyle, and privacy so the scope and vision of the outhouse project is achieved correctly by the public. Churches would possibly bring forth funds that the project will benefit from as well. While WHO receives grants that help fund their project, this project could also benefit from grants. Presenting this project to The United Nations, and receiving their support would be a great advantage to the project. Any funds this project can receive will increase the success of the outhouse project and level out the playing fields to fight Cholera.

Community members would play a significant part in making this project a success. Instructing Somali about the benefits of building outhouses for their communities and teaching them information about Cholera will be a time consuming but necessary step in the success of the project. We have to find a way to teach them so they understand the importance of outhouses, how to build the outhouses, and how to change their lifestyles to fight Cholera. Because they know the land better than anyone, Somali will be able to learn how to build the outhouse very quickly. With the support of Somalia's government, work on the project will be able to spread quickly, and hopefully bring forth positive feedback. The overall success of this program relies on educating Somali effectively on how to build their own outhouses. Also, the importance of using natural resources, so they are self-reliant. Finally, one of the most important steps is educating the people about the effects of Cholera and how building and sustaining outhouses will aid in the prevention of the deadly spread of the illness. Keeping the water and land as safe as possible from Cholera for current and future Somali is the main goal.

Many people ask whether the United States should solve all its problems at home before helping other countries, and I believe that it is vital to help all people of the world. The secret is balance. The United States has the capabilities and compacity to help itself and others. Many countries could greatly benefit from the help of outside countries like the U.S. The U.S. can aid Somalia and other countries to help them get on their own feet. In Somalia, it is more a life and death situation. However, in the U.S., it is a more controlled environment. Ways that concerned U.S. citizens can convince the public and government that foreign aid is needed is by making them aware of the foreign issues. As indicated earlier, the techniques used to advertise this project could really broaden citizen's knowledge of how other countries function and survive. We could help and learn from these foreign countries.

Due to the deadly disease of Cholera many Somali lives have been lost. Thankfully, with the help of organizations like UNICEF, WHO, and Actions Against Hunger there has been strides of improvement with the situation of Cholera in Somalia. There are, however, still many deaths caused by the illness. The steps to help combat Cholera is to first increase the education of the impact of Cholera on the Somali people. Through this education, they will learn how to eat and drink sanitized water, as well as be aware of the disease. Somali will also be taught how to build their own outhouses with natural materials, so they do not have to defecate outside and decrease the spread of the disease. This project to fight Cholera will be sustainable because Somali will be self-reliant to living their lives in a safer way and building their own outhouses. The only assistance needed from the United States is to be taught and informed about Cholera and outhouses. From there, they can do everything themselves to better their lives and fight the disease that takes so many lives in Somalia.

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