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Tanzania, Factor 12: Human Diseases

## **Tanzania: Reducing the Burden of Disease**

Al Franken once said that, “Mistakes are part of being human.” Mistakes like slipping on ice, falling down the stairs, or even forgetting to wash your hands can lead to an unfortunate mishap. Injuries and infections can be treated in a large, well equipped hospital with many trained professionals. We take advantage of the useful medical care and advanced treatments. In countries deprived of exceptional healthcare, people cannot afford the unique treatments normally offered in more well-off countries. Without these expensive medications deprived countries like Tanzania in Africa, suffer from high mortality rates due to diseases that could be both prevented and treated.

### **1. Life in Tanzania**

The United Republic of Tanzania is located on the East coast of Africa. Consisting of roughly fifty million inhabitants, families tend to be very large ("The World Factbook: Tanzania"). Most women do not use modern family planning methods and on average have five children each ("Tanzanian Population Gallops."). Households increase in size when a monogamous marriage becomes polygamous. Polygamy is the practice of having more than one wife and is not uncommon in many African cultures. Almost a quarter of women in Tanzania are in a polygamous marriage ("Gender Equality in Tanzania"). Unfortunately, these types of marriages can create an “HIV super-highway” especially when only 10 percent of the cohabiting couples actually use protection when they have sex (Walque).

The majority of the population in Tanzania depends on local agriculture for food ("Tanzania Overview"). Small land owners possess anywhere from two acres to seven acres ("Tanzania: Farming Methods"). Small huts made out of mud are built on this land for shelter. These huts require high maintenance and have a habit of falling apart during heavy rains ("Housing Programme in Tanzania"). This rain, though a sign of destruction for homes, is also a sign of a successful harvest. Farmers grow crops such as coffee, tobacco, corn, wheat, and other products that serve as both nutrition and a source of income ("The World Factbook: Tanzania"). Farmers can sell crops they have a surplus of at local markets that are easy to access. With an average per capita income of \$1,700, farming does not always bring in a lot of money for the average family ("The World Factbook: Tanzania"). Over seventy percent of the farmland is plowed by hand with the use of a hoe ("Tanzania: Farming Methods"). Cultivating the fields takes days of hard work and requires quite a few farmers. In Tanzania, women are the primary workers on the farm (Bertini). They do not just plant and harvest crops. They also care for livestock like cattle, sheep, and goats ("The World Factbook: Tanzania"). Being the common laborer, women are disadvantaged. They are not given the same opportunities as men and are expected just to raise a family and tend to the farm ("Gender Equality in Tanzania").

### **2. Barriers**

Over 60 percent of Tanzanian children attend primary school, but only 10 percent of students end up attending secondary school (Murphy 11). In some cases, if the village is too poor to buy books or pay teachers, children have to learn from their older family members (11). With such little education, farming is one of the only realistic job options for most people. Well paid, professional jobs require a certain standard of education that Tanzanians cannot always fulfill. Although the farmland has potential for successful irrigation, farmers still use rain-water to water their crops (Philip). This becomes a disadvantage when a drought occurs since families are not able to harvest enough food to eat. This lack of knowledge prevents the development of new technologies and results in a setback for Tanzania and its people.

Health care in Tanzanian villages usually consists of only two individuals selected by the local government ("Health Services in Tanzania"). The health workers are only trained for a short amount of time and therefore, are not as skilled as the professionals that work in larger Regional Hospitals ("Health Services in Tanzania"). Even though the village doctors can make house calls, survival is still doubtful for diseases like HIV/AIDS, Tuberculosis, or Malaria due to problems with advanced medications and low financing ("Working Together for Health"). With such poor health care, even the slightest cold can prevent workers from working and prevent families from earning enough money to buy food for that day.

### 3. Current Disease Status

Diseases can negatively impact the income a family receives. A farmer, who has a severe illness or infection, cannot work. If a farmer is suffering from diarrhea, a symptom of both Malaria and HIV/AIDS, working in a field all day under the hot sun can be detrimental (Harms). An unwell individual must stay inside while their family cares for them. Women, who are the prime farmers in Tanzania, are also the main people to be infected by sexually transmitted diseases like HIV (Walque). When 60 percent of these females are suffering from HIV/AIDS, family farms cannot be maintained and food cannot be harvested to provide nutrition for the family or sold for a profit (Merino 43). The little money that the family does have, goes to paying for a doctor and medication. The prices of a doctor visit and medicine can put the average family in great debt ("Health Services in Tanzania").

At this time, there is no cure for HIV/AIDS. HIV, Human Immunodeficiency Virus, is an infection that leads to the development of AIDS, Acquired Immune Deficiency Syndrome (Merino 7). HIV/AIDS is most commonly spread through unprotected sex but is also spread by injecting drugs and mother to child transmission during delivery or breast feeding (7). Condoms can be used during sex to prevent transmission, but when surveyed health officials found that less than 10 percent of couples used a condom the last time they had sex, thus increasing the risk of spreading the virus (Walque). In Tanzania, there are over 1.5 million people infected with HIV/AIDS ("Tanzania Statistics"). Infection rates have stabilized in some areas and slightly decreased in others (Merino 14). The executive director of UNAIDS, Peter Piot, stated, "Projections now suggest that some countries in sub-Saharan Africa will face economic collapse unless they bring their epidemics under control" (22).

HIV/AIDS is not the only lethal disease in Tanzania. Every year, around 16 million new Malaria cases are reported (Tanner). Though there is a cure for Malaria, the cost can be too expensive for most families. Malaria spreads when an infected mosquito bites an uninfected person. An uninfected mosquito can bite a person with Malaria, and then pass it to an uninfected person (Harms). Malaria rates have decreased since last year for adults, but increased in children, especially under the age of five ("Malaria transmission in Tanzania."). Younger children are more susceptible to the disease because their immune systems are not fully developed ("Malaria FAQs"). Diagnosis of Malaria is usually based on what the doctor can observe in the patient. The rapid Malaria test units frequently run out in only a matter of weeks (Gehrke). Out of the fifty million residents of Tanzania, over forty million live in areas with high risk of Malaria infection, and don't even know it (Gehrke).

### 4. Improving Health

Improving Tanzanians health is more than just curing and protecting them from infectious diseases, it is also extending their lifespan. A child without a disease has their whole life in front of them. They could get married, find a job and raise a large and happy family. Farmers, on the other hand, already have a job and when they are not sick, they can work. They may produce a successful harvest and feed their family without worrying about paying for medicine and doctor fees. Over time the population would most likely increase due to fewer infections of fatal illnesses like HIV/AIDS and Malaria.

Over time, urbanization in Tanzania will increase due to population growth ("The World Factbook: Tanzania"). In an urban city, mosquito breeding sites can be found and controlled (Tanner). This would decrease the number of reported cases of Malaria in the area. In contrast, Tanzanians living in an urban setting have a bigger chance of becoming HIV positive as opposed to those living in a rural area ("Tanzania HIV/AIDS Indicator Survey."). This is a result of an increased number of sex workers and drug users (Merino 10). As urbanization develops, the HIV/AIDS positive population will also grow.

Cities and other urban areas do not always have positive effects on the environment. Urbanization is one of the many sources of climate change and extreme weather patterns (Kalnay). Droughts are a type of extreme weather occurrences that could be potentially dangerous. However, these conditions could be helpful. Though droughts are life-threatening for crops, they can actually reduce the risk of infection for some diseases. Without any rain, small streams and ponds dry up and eliminate breeding sites for mosquitoes, thus reducing the number of mosquitoes carrying malaria (Cetera). Droughts that are paired with high temperatures can actually reduce the spread of the HIV virus. The virus can survive on the outside of the body for weeks, for example blood ("HIV/AIDS Survival outside the body"). When exposed to the extreme heat experienced during the droughts, the HIV virus becomes weak, sensitive, and eventually dies ("HIV/AIDS Survival outside the body").

## 5. Solutions

Reducing the burden of diseases like HIV/AIDS and Malaria can become complicated with all the various solutions. Several ideas involve the use of broadcast media, which Tanzania has very little of ("Importance of Public Education"). One method that could be quite effective is education. With over half of all children attending primary school, implementing a health education program would benefit the country greatly (Murphy 11). Less than 50 percent of Tanzanians under the age of twenty-four have any comprehensive knowledge of HIV/AIDS ("Tanzania Statistics"). Health education focuses on preventing disease transmission and promoting better health practices (Nutbeam). For example, schools would teach the ABC's of HIV/AIDS prevention. That is A for abstinence, B for be faithful, and C for condoms (Merino 79). This encourages a healthy lifestyle and teaches students about the complications of disease.

By sending their children to school to learn health education, the average Tanzanian family would be helping the next generation live longer and healthier lives. Adults who have already completed school without proper health education can still learn by attending medical classes taught by the local healthcare officials. These local professionals are able to pass on their training to individuals who could use it every day to improve their hygiene practices. The classes, much like the school programs, would teach disease prevention and management ("Importance of Public Education"). These health classes can be taught anywhere from small villages to large cities all over Tanzania. Community involvement is very important to making these programs work (Nutbeam). Even after only one year with Tanzanians of all ages taking part in some sort of health education, the community as a whole would become more aware and empowered to make healthier decisions (Nutbeam).

Communicating with small villages that are farther out can be a difficult task. The best way to reach these areas are at markets. Built for buying and selling locally grown food, markets can attract families from all over rural Tanzania. To reinforce proper disease prevention methods, the local government can form an outreach program and set up a booth or table that provides information for the people at the markets. Booths can also be set up by local wells that are used for retrieving water (Shore). Pamphlets and brochures can be handed out to the Tanzanians who are literate. As for the people who are not literate, speakers can still provide them with the necessary information to live a healthier life. This information would consist of practices such as wearing proper clothing and repellants during the day to prevent mosquitoes from biting. Hearing or seeing these proper prevention methods can inspire Tanzanians to make better decisions.

## 6. Other Solutions

Education is an important solution in reducing the burden of disease. For illnesses like HIV/AIDS, education might be the best possibility, but for Malaria, education alone is not enough (Nutbeam). Many people suggest draining swamps to remove breeding locations for mosquitoes, but this can disrupt the environment and the other wild life (Vernon). Prevention, being the main focus of health education classes, is best achieved with the use of insecticide laced mosquito nets (Gehrke). The nets have insect repellent deep in the fibers, killing mosquitoes on contact (Gehrke). With no malaria vaccine, this form of defense seems logical. These nets are cheap to make, long lasting, and require no electricity to use in homes except that only 10 percent of families in Tanzania actually use the nets ("Demographic and Health Survey"). Other technologies require an electricity source that Tanzania has very little of, such as mosquito zappers. The problems can be traced back to poor distribution procedures. Not all families have easy access to the net distribution areas and thus do not receive the nets. The nets are produced in a factory within Tanzania (Gehrke). The factory is funded by the Global Fund which fights diseases such as HIV/AIDS and Malaria (Gehrke). Organizations like Nets for Life, would be helpful in distribution of the nets throughout Tanzania ("Malaria Prevention in Africa"). Nets for Life is a partnership that focuses on preventing Malaria in developing countries, especially Africa ("Malaria Prevention in Africa"). It combines the forces of local churches to distribute the nets to families in need of protection. They are one of the only organizations that distribute nets throughout Tanzania and can give the majority of families easy access to the nets. In a short period of time, Nets for Life could successfully help lower infection rates due to malaria for all of Tanzania.

Distribution is another solution that uses the support of local government. Giving people access to free things like condoms encourages better hygiene practices. Condoms are an inexpensive product that can have drastic effects if not used. With the assistance of Tanzania's local governments, distribution of products like condoms can be achieved successfully. Insect repellants and Malaria or HIV/AIDS rapid test units can also be offered to Tanzanians free of charge.

Foreign aid is a successful way to implement programs and distribute necessities in third world countries. The United States is one of the leading countries in global aid (Shah). Many Americans believe that we should take care of ourselves before other countries. The truth is, a more stable world helps in maintaining a more stable global economy. Propositions and letters to the congress in support of United States foreign aid in Tanzania can convince the government to partner with other international organizations like Nets For Life to aid in the distribution of nets and other products.

Overall, Tanzania should implement health education programs and supply its people with prevention products. A class where kids learn how to make healthy decisions throughout their lives is just as important as distributing free condoms to sexually active couples. As adults, Tanzanians must have the knowledge of diseases like HIV/AIDS and Malaria. This can be accomplished through adult classes that stress better lifestyle decisions like the ABC's of HIV/AIDS prevention or the use of insecticide laced mosquito nets. It can also be achieved by bringing the information to markets and sharing the knowledge with all Tanzanians. By following these recommendations, skilled workers like farmers are less likely to acquire an infectious disease and can instead work in the fields harvesting crops and providing nutritious food for their families.

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