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Ethiopia: Malaria

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Malaria in Ethiopia

Overview of Ethiopia

Ethiopia is a country located on the easternmost part of Africa. It is a country that is covered in deserts, mountains, plateaus, and lakes. It is home to nearly 105 million people, 700,000 of them being refugees from Somalia and Sudan (Yamir, Animut, Erko, & Mano, 2015). The Christian tradition dominates the Ethiopian culture at 63% and Muslims account for 34% of the population. Ethiopia's government is run as a parliament where the highest form of power is known as the House of Peoples and is elected by the Ethiopians for a 5+ year term (De Graeve, 2010). It is very similar to the U.S. in terms of elections.

Major Challenges

Ethiopia has one of the highest poverty levels in the world. 37 million people are within the poverty line and are becoming even poorer with the increasing costs of food and resources (Alemu, Abebe, Tsegave & Golassa, 2011). Education is not highly valued in Ethiopia, which is why the poor become poorer. Without education, Ethiopian children are being forced into marriages, labor, trafficking, and/or prostitution. Additionally, Ethiopia's economy is solely based on agriculture, so natural disasters can hinder the entire country and its economy. Lastly, a clean water source has been a severe issue in Ethiopia and has caused major medical issues for the entire country (Alemu et al, 2011).

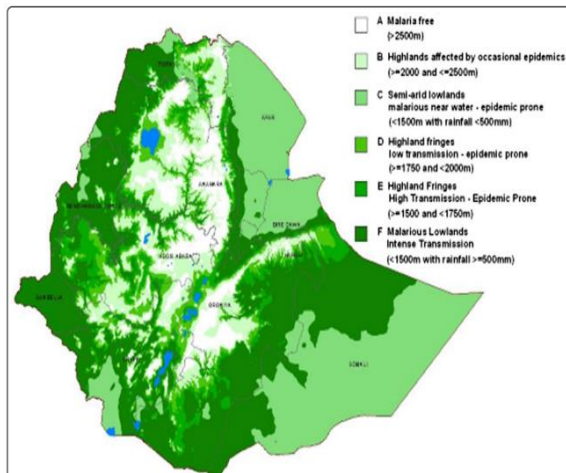


Malaria

Malaria is a very serious and life-threatening disease. It is caused by a *Plasmodium* parasite that resides in and is transmitted by a mosquito. The female *Anopheles* mosquito is the only mosquito that can transmit Malaria and usually does so during evening hours (Yamir et al, 2015). This is why mosquito treated nets are crucial in these areas. Because there are over 100 different malarial species, it is important to understand that Malaria is a huge medical problem especially in areas where proper medical care is scarce. When an infected mosquito bites a human, this parasite enters the liver of this human and infects their red blood cells. Unfortunately, there is not any available vaccines for Malaria, so prevention and treatment are very important (Karunamoorthi & Hailu, 2014).

Impact of Malaria

In Ethiopia alone, there are around 3 million cases per year and Malaria is recognized as the biggest health problem in Ethiopia. This disease has prevented kids from attending school, has forced communities into malaria free zones, and has caused a major food and water insecurity. Only 33% of children sleep with protective nets. Those who are most at risk are those who live in houses and can't obtain clean water and those whose houses are made from mud/dung (Ashton, Kefyalew, Tesfaye, Pullan, Yadeta, Rethinger, & Brooker, 2011). Because most people in Ethiopia are living under the poverty line, a majority of people in Ethiopia are at risk.



This map of Ethiopia shows the prevalence of Malaria in certain zones throughout the country as of 2018. The darkest shade of green shows the most “intense transmission” (Animut & Lindtjorn, 2018).

Attempted Interventions

As a whole, it has been concluded that treatment success for Malaria in terms of drugs and antibiotics have been beneficial at 92.9%. The problem, however, still stands. While drug treatment might be helpful, it doesn't prevent a person from catching the disease. These successful drug treatments do have adverse side effects that can be harmful and the availability of these drugs is slim to none (Genreyohannes & Bhagavathula, Seid, & Tegegn, 2017). What has been beneficial is the mosquito repellent sprayed nets that have been utilized in order to prevent mosquitos from transmitting the disease at all hours of the night (Genreyohannes et al, 2017).

Overall, it is important for the government to understand that Malaria is a huge threat to the well-being and quality of life of their citizens. The only way this issue could ever be fully resolved is through public health techniques that focuses on prevention of this disease as a whole, rather than individual treatment.

Suggestions

Focusing on public health techniques to control the spread of Malaria, I think it is important to establish clinics in areas where Malaria prevalence is the highest. This is the first step in controlling the worst outcomes of Malaria in this country. I also think it is important for the government to realize the scope of the epidemic and work with other countries in order to control the spread worldwide. Additionally, water sources within this country need to be a main focus when it comes to this issue. Malaria symptoms are so severe in the Ethiopian population because of a lack of nutrient and resources to strengthen those who undergo disease and illness very easily. Although this isn't a full answer to how to end Malaria, these are important public health techniques that can alter the prevalence of Malaria in this developing country.

References

- Alemu, A., Abebe, G., Tsegave, W., & Golassa, L. (2011). Climatic variables and malaria transmission dynamics in Jimma town, South West Ethiopia. *Parasites & Vectors*, 4(1), 30-40.
- Animut, A., & Lindtjorn, B. (2018). Use of epidemiological and entomological tools in the control and elimination of malaria in Ethiopia. *Malaria Journal*, 17, 1-8. doi: 10.1186/s12936-018-2172-1
- Ashton, R.A., Kefyalew, T., Tesfaye, G., Pullan, R.L. Yadeta, D., Rethinger, R., & Brooker, S. (2011). School-based surveys of malaria in Oromia Regional State, Ethiopia: A rapid survey method for malaria in low transmission settings. *Malaria Journal*, 10(1), 25-37.
- De Graeve, K. (2010). The limits of intimate citizenship: Reproduction of difference in Flemish-Ethiopian adoption cultures. *Bioethics*, 24(7), 365-372.
- Genreyohannes, E.A., Bhagavathula, A.S., Seid, M.S., Tegegn, H.G. (2017). Anti-malarial treatment outcomes in Ethiopia: A systematic review and meta-analysis. *Malaria Journal*, 16(269) <https://doi.org/10.1186/s12936-017-1922-9>.
- Karunamoorthi, K., & Hailu, T. (2014). Insect repellent plants traditional usage practices in the Ethiopian malaria epidemic-prone setting: an ethnobotanical survey. *Journal Of Ethnobiology & Ethnomedicine*, 10(1), 1-20.
- Yimer, F., Animut, A., Erko, B., & Mamo, H (2015). Past five-year trend, current prevalence and household knowledge, attitude and practice of malaria in Abeshge, south-central Ethiopia. *Malaria Journal*, 14(1), 1-11. doi:10.1186/s12936-015-0749-5