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Zimbabwe : Malaria

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Zimbabwe and Malaria: Threatening an At-Risk Population

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Zimbabwe: An Overview

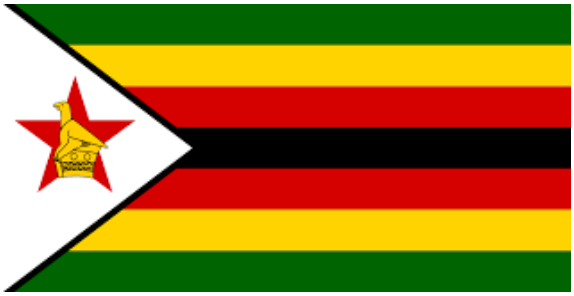
Zimbabwe, is a developing country in southeastern Africa, and is home to a population of over 15.6 million people ("Zimbabwe: WHO," 2017). Much of the country, about 85%, identifies as Christian, while the other 15% identify as unreligious ("Religion," 2016). Comprised of 98% African-descended individuals belonging to the ethnic groups of Shona and Ndebele, Zimbabwe functions as a republic under current elected president Robert Mugabe ("Zimbabwe: WHO," 2017). While Zimbabwe has experienced little to no external conflict, it is ridden with internal conflict and has been the victim of civil wars, and major arguments that eventually ended with the 2008 Global Political Agreement (GPA) that strived to create a more fair election environment ("Zimbabwe: A Conflict," 2016). This inequality still exists today. Zimbabwe is a republic on paper, but functions as more of a dictatorship with the "president" right at the top.

What is Malaria?

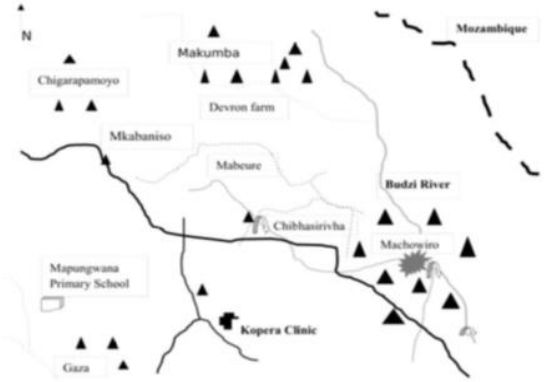
Malaria, a mosquito-borne infection, is transmitted by disease-carrying female *Anopheles* mosquitoes and attacks red blood cells, causing anemia and respiratory distress ("Malaria," 2017). 90% of all malaria deaths occur in the WHO African region specifically, and children under the age of five account for 78% of these deaths (Kureya et al., 2017, p. 424). In Zimbabwe specifically, malaria is the fifth leading cause of morbidity and is highly prevalent 47 of its 65 rural districts (Kureya et al., 2017, p. 424).

Contributions to Malaria

Political issues have enabled more opportunity for inequality within Zimbabwe, so much so that much of the population struggles to meet basic needs such as food, water, safety, and access to healthcare while the rich few (including Mr. Mugabe) control any wealth the country has ("Zimbabwe: A Conflict," 2016). Due to this systemic inequality, many infectious and vector-borne health complications still exist and thrive in Zimbabwe today, including malaria. According to an article published this year in the *Iranian Journal of Parasitology*, 198 million cases of malaria occurred globally in 2013, ultimately leading to 580,000 deaths (p. 424).



Spot-map of malaria's distribution cases of 2 of Zimbabwe's 65 rural districts from Kureya et al.'s 2017 article:



In the map, each black triangle represents 10 malaria cases. A clinic is represented by the typical black "first aid" sign. As you can see, there is only one clinic available (the Kopera Clinic near the bottom of the map) per *at minimum* 220 malaria cases. This only perpetuates Zimbabwe's health issues! If the public cannot access healthcare, they cannot and will not be healthy.

Who is most at-risk?

Those most at-risk for malaria live in warmer, sometimes wet climates where mosquitoes can breed and spread the disease effectively (Gunda et al., 2017, p. 2). Among at-risk populations, such as those in Zimbabwe, infants, children under five, and those with HIV and aids are more prone to being infected with malaria ("Malaria," 2017). This is because their immune systems are either not yet developed fully or weakened so that they do not produce a strong enough response to potentially fight off the infection.

Risk Factors	*Cases n (%)*	*Controls n (%)*
Living in Houses of Pole and Dagga	30 (65)	33 (72)
House made of Dagga and Bricks	16 (35)	13 (28)
Living in House with open eaves	29 (63)	19 (41)
House without open eaves	17 (37)	27 (59)
Outdoor Activities in the evening	33 (72)	28 (64)
No outdoor activities, evening	13 (28)	16 (36)
Wearing short clothes	21 (53)	26 (59)
Wearing long clothes	19 (47)	18 (41)
Live 3Km within River or Swamp	31 (67)	20 (43)
Live away from River or Swamp	15 (33)	26 (57)
Not Having ITNs at home	27 (59)	18 (39)
Having ITNs at Home	19 (41)	28 (61)
ITN not hanged in the room	32 (70)	21 (46)
ITN hanged in the room	14 (30)	25 (54)
Having Evening Meals outdoors	19 (41)	24 (52)
Evening meals indoors	27 (59)	22 (48)
Having visited Mozambique	8 (17)	1 (2)
Not having visited Mozambique	38 (83)	45 (98)

As you can see from the information provided above, living in houses with open eaves, completing outdoor activities in the evening, wearing short clothes, living within 3 kilometers of a river or swamp, or not having mosquito nets are behaviors highly associated with contracting malaria. While implementation of mosquito nets has decreased the prevalence significantly over the past 10 years in Zimbabwe, it is next to impossible to insure that every house has one. Likewise, the people of Zimbabwe do not have the resources nor the money to ensure that their houses are sealed effectively enough to deter mosquitoes from entering in. Additionally, many families that leave near a water source that breeds mosquitoes cannot just up and leave everything they've ever known.

How do we solve this problem?

A good way to solve Zimbabwe's malarial problem would be to more evenly distribute the country's wealth. This way, there would be more healthcare facilities, and more families that would be able to pay for proper treatment if they became ill. Yet, because of the way the country is currently run, and the way the government is enforced, this is not likely to happen within the next few years. A more subtle change that may help the spread of malaria in Zimbabwe is putting clinics along the shores of mild rivers so that, if each community had a few rafts or boats, people could potentially use the current to arrive at a healthcare facility more quickly.

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