

Malaria in Kenya

Name

Instructor

Institution

Location

Date of Submission

Table of contents

Introduction	3
Overview of Kenya	3
Overview of Malaria	4
Causative agent	4
Signs and Symptoms	5
Mechanisms of Malaria	5
Secondary Complications	6
Malaria Prognosis	6
Malaria Risk Factors	7
Prevention of Malaria.....	7
Conclusions	8
References	9

Introduction

For many years, people all over the world have been diagnosed with different ailments that are caused by different causes. In addition to that, while some ailments have been effectively contained and their spread halted some ailments have spread with unprecedented rates leaving concerned stakeholders wondering what needs to be done in order to ensure that the diseases are contained. Among others, some of the diseases that are still hard to contain comprises of Malaria, HIV, and AIDS. This paper focuses on Malaria in Kenya which is based in the East African region.

Overview of Kenya

As already pointed out, this paper focuses on the subject of Malaria in Kenya. Nevertheless, prior to discussing Malaria in the country, it is vital that an overview of Kenya is provided as that will make it easy to comprehend about Malaria in the country. According to the World Bank (2015), Kenya is located in the East Africa and has an estimated population of 45 million people. The country was colonized by the British and gained its independence in the year 1963 with the charismatic Jomo Kenyatta becoming the first president of the country. Some of the challenges that are faced by Kenya comprise of; high corruption, high rates of unemployment, crime and poverty. Moreover, droughts in the country put millions of lives at risk. For the last few years, the country has faced increased attacks from terrorists as the terrorist's demands that the country's military leaves Somalia where it is fighting Alshabab militants. The current president of the country is Uhuru Kenyatta who is the youngest son of the first president of the country. In view of the culture, Kenya has a diverse culture since it has 42 ethnic tribes where each tribe has its own distinct culture and languages. Nevertheless, English and Swahili are the official languages in the country (BBC, 2015).

Overview of Malaria

Malaria can be explained as a disease that is mainly caused by a parasite that resides some part of its life in human and other parts in mosquitoes. Throughout the world, Malaria is still considered as been one of the main killers of human beings and it said to threaten the lives of at least 33% of the world's population. Mainly, it has been found to blossom in the tropical regions of Asia, Africa, and Central and South America, where it affects millions of human beings in these regions. Indeed, in every single year, an approximated 350 to 500 million incidents of malaria occurs in different parts of the world. Unfortunately, over 1 million who are diagnosed with Malaria and mainly comprising of small kids ends up dying on yearly basis. Even though the diseases has been practically eradicated in some of the regions with temperate climate such the United States, the disease still continues to affect millions of people in other parts of the world. According to the Centers for Disease Control and Prevention (CDC), there are only about a thousand cases of Malaria reported in the USA with the individuals with Malaria been those who gave contracted the disease during their visits to regions that are prone to the disease (Raghavendra et al. 2011; White, 2011).

Causative agent

Malaria is caused by the parasites of the Plasmodium spp while there are four species of Plasmodium that can infect human beings. Nevertheless, in most cases, Malaria infection is mainly caused by Plasmodium vivax or Plasmodium falciparum with Plasmodium falciparum been considered to cause the most serious type of Malaria (IDEAS, 2015).

Signs and Symptoms

The symptoms of Malaria can advance as swiftly as seven days from the time when a person was bitten by an infected mosquito to the time when the individual contracts Malaria. Most of the times, Malaria begins with flu-like symptoms with infection in the early stages while those who are partially immune to Malaria might initially show no symptoms at all. Nevertheless, depending on the immune levels, the signs and the symptoms of Malaria normally commence between seven to twenty five days though people who might have taken antimalarial tablets for prevention purposes might take a longer time to exhibit any of the symptoms. The early signs and symptoms of malaria comprises of flu-like and could entail; a high temperature (fever), persistent headache, sweats, chills and vomiting. The symptoms tend to be minor and that makes it difficult for one to establish that he/she is having malaria. Depending on the type of malaria, the fever can be experienced in cycles of four to eight hours. During the cycles, a person will feel cold and then could even shiver for a period that can last to an hour. Thereafter, the person develop a fever that lasts from two to six hours and is normally accompanies by serious sweating (Webb, 2009).

Other signs and symptoms of Malaria comprises of muscle pains, diarrhea and feeling unwell. In situations where a person happens to be infected by the most severe Malaria that emanates from *Plasmodium falciparum* parasite, then there is a huge risk that the person might develop serious and life threatening complications that could include organ failure and breathing issues and if not treated urgently, it could lead to death (Webb, 2009).

Mechanisms of Malaria

As already pointed out, Malaria is caused through the transmission of the Malaria parasite *Plasmodium* to human beings when one is bitten by female *Anopheles* mosquito. *Plasmodium*

parasites' main hosts and spread vectors are Anopheles mosquitoes that are females while humans and other vertebrates are considered as secondary hosts. The mosquitoes initially take in the parasite through the feeding of the blood of a person who is infected. In the mosquitoes' gut, the gametocytes from the infected person fuse to create ookinete that gets into the gut lining and forms an oocyst in the gut wall. Once the oocyst gets to rupture, it discharges sporozoites that travel through the mosquito's body to the salivary glands sporozoites during the phase of sexual reproduction. The mosquito thereafter becomes ready to infect a new person. Thus, only female mosquitoes that feed on blood transmit the disease. The mosquitoes mainly bite at night. In rare cases, Malaria can also be transmitted through blood transfusions in cases where blood from an infected person is used (Webb, 2009).

Secondary Complications

For individuals who happen to have serious malaria, they have compromised immunity and as a result, they tend to be at higher risks of developing a secondary bacterial infection. Some of the secondary bacterial infection could comprise of septicaemia, bacterial pneumonia, urinary tract infections and even meningitis. When medical intervention in such cases is not urgently sought, the individual could end up been in shock and having multiple organ failure.

Malaria Prognosis

When diagnosed early and when the ideal antibiotics are administered and used by the patient, the prognosis of malaria normally tends to be very good. In Kenya, World Health Organization (2009) noted that an estimated 15 million malaria cases were reported in the year 2006 with over 50,000 deaths been caused by Malaria. The main reason for the death was due to lack of treatment of Malaria. At the moment, there exists no vaccine that can be used to prevent

malaria mainly due to the fact that the Plasmodium species and the P. falciparum species are very diverse.

Malaria Risk Factors

The biggest risk factor for Malaria can be said to be reside in regions where the disease is quite common. Nevertheless, the fact that some people have to live in such regions as is the case with Kenyans implies that the Kenyans will always be at risk of contracting Malaria.

Nevertheless, the people who are mainly at risk include the young children and infants, and the pregnant women together with their unborn children. The reason why these types of people are more prone to Malaria is mainly due to the fact that their bodies are less immune to Malaria .

Prevention of Malaria

As has already been noted, there exists no medication that can be said to be 100% effective in prevention of Malaria. Thus, it is ideal that those residing in countries such as Kenya take the necessary measures in ensuring that they avoid being bitten by mosquitoes. One of the preventative measures that are in place in Kenya entails sleeping under the bed nets that cover the entire bed. The nets can be effective as they ensure that when sleeping, one is protected from the mosquitoes. Another preventative measure entails wearing of clothes that covers majority of the exposed skin thus preventing the mosquitoes from biting the human beings. Apart from that, it can be noted that there has been attempts to destroy mosquito breeding grounds even though the attempts have not had the desired impacts (Webb, 2009).

Conclusions

In conclusions, it can be explained that Malaria is a dangerous disease that can have devastating effects especially in cases where it is not well treated. On the other hand, even though there has been no success in developing 100% effective medication for Malaria, it can be explained that the World Health Organization as well as other stakeholders needs to put more resources in research and development of medication that would be 100% effective in treatment of Malaria.

References

BBC (2015). *Kenya Country profile overview*. Retrieved from:

<http://www.bbc.com/news/world-africa-13681341>

IDEAS (2015). *Malaria*. Retrieved from:

<http://ideas.health.vic.gov.au/bluebook/malaria.asp>

Kasturi, H, Sean. C. ., Murphy, Dan, A. M., Terrie E. T. (2007). Malaria: Mechanisms of Erythrocytic Infection and Pathological Correlates of Severe Disease. *Annual Review of Pathology: Mechanisms of Disease* Vol. 2: 217-249

Raghavendra K, Barik T. K, Reddy B. P, Sharma, P, Dash A. P. (2011). "Malaria vector control: From past to future". *Parasitology Research* 108 (4): 757–79. doi:10.1007/s00436-010-2232-0

Webb, J. L. (2009). *Humanity's Burden: A Global History of Malaria*. Cambridge University Press.

White N. J., (2011). "Determinants of relapse periodicity in Plasmodium vivax malaria". *Malaria Journal* 10: 297

World Bank (2015). *Kenya Overview*. Retrieved from:

<http://www.worldbank.org/en/country/kenya/overview>

World Health Organization (2008). Malaria in Kenya. Retrieved from:

http://www.who.int/malaria/publications/country-profiles/2009/mal2009_kenya_0025.pdf