

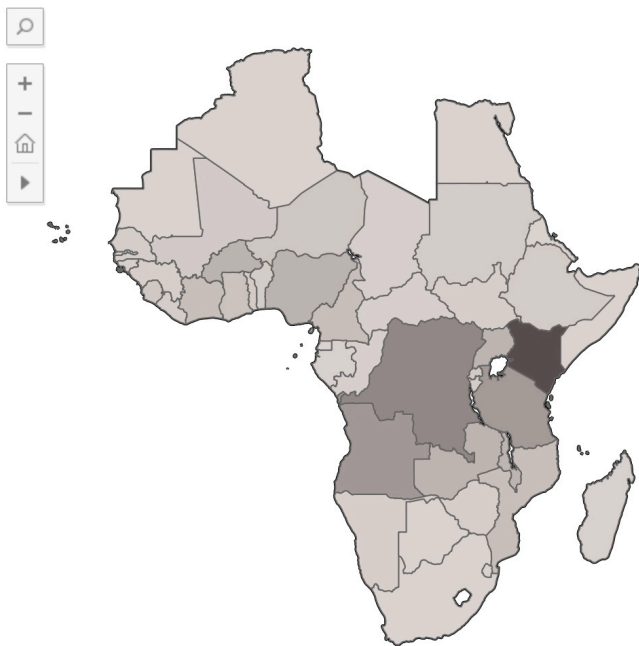
# Data Foundation Nano Degree Project-1 :

## Interpret a Data Visualisation

### *Malaria Deaths in Africa: 2000-2014*

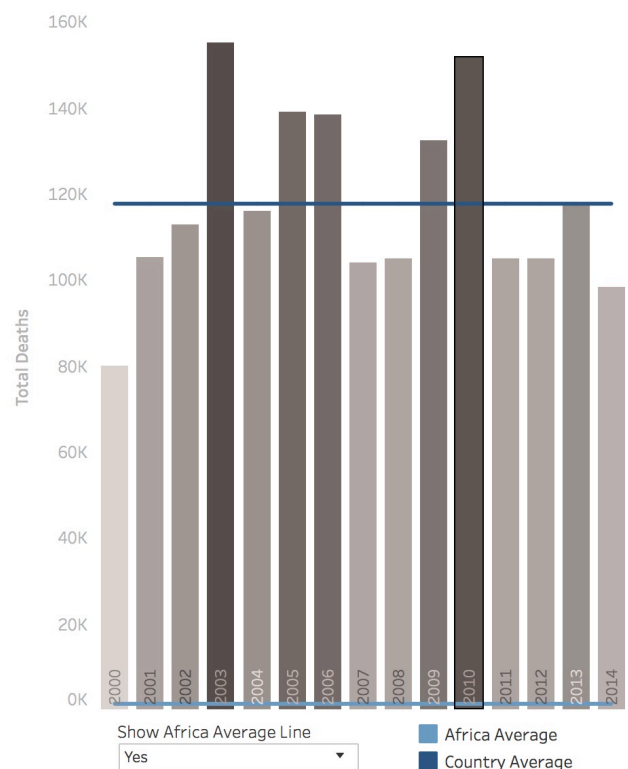
Project shows us how Malaria affected Africa and graphs show the number of malaria changes between 2000 and 2014.

Which countries are most affected?



Darker shading marks a higher number of deaths caused by Malaria. Select a country on the map to explore how the number of malaria deaths have changed over time.

How have the number of malaria deaths changed over time in Algeria, Angola, Benin and 44 more?

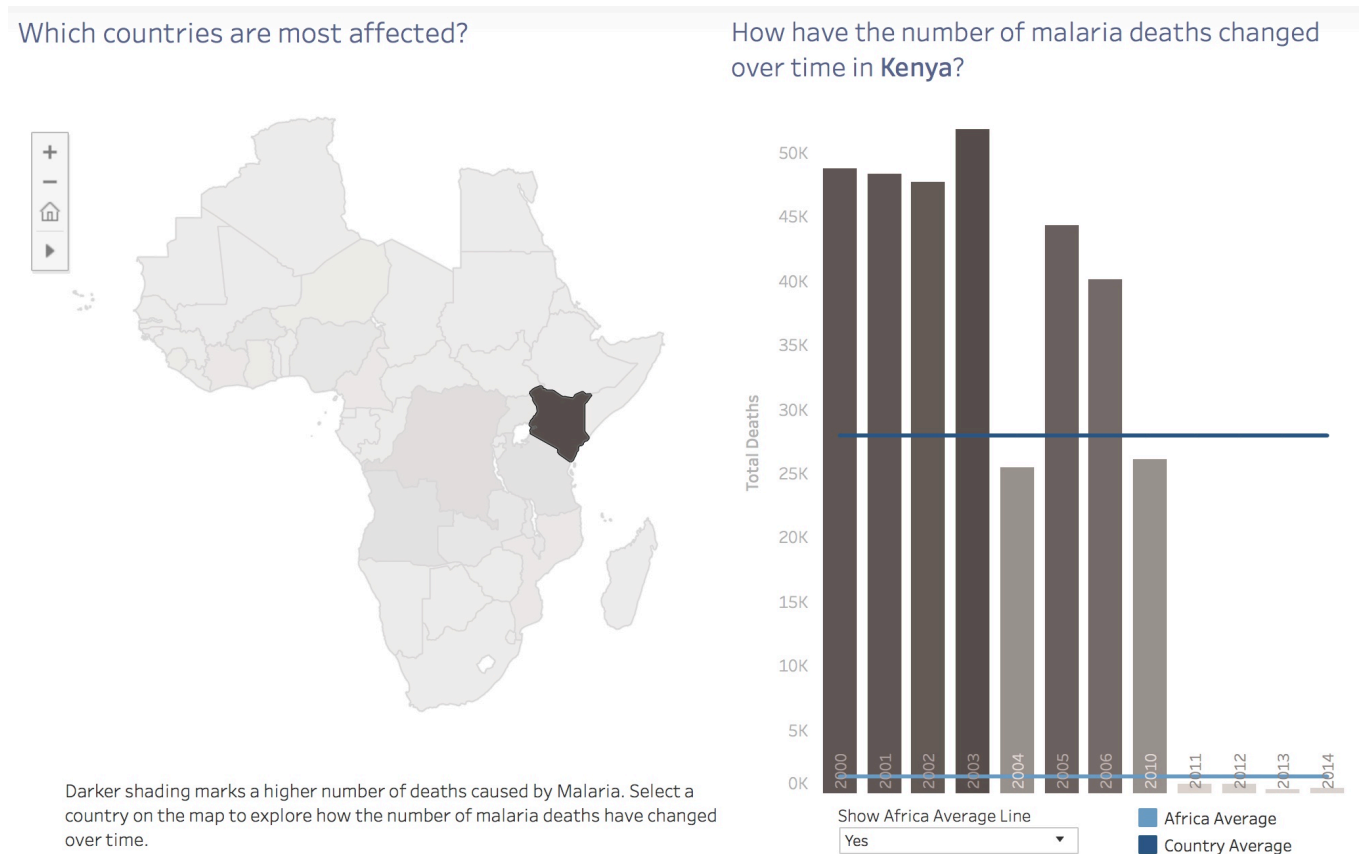


Above graph shows us 47 countries total malaria deaths between 2000 and 2014. All countries average number of malaria death is 117556

As we can see 2003, 2005, 2006, 2009 and 2010 years are above average point shows malaria deaths critical years in Africa.

A significant increase in malaria death is between 2002 and 2003. In this year's total malaria deaths increase almost 50000 and the second highest number of the year is 2010 for Africa.

Also, the above graph shows us a steadily increase between 2000 and 2003 but we cannot see a significant decrease point so this point we will look closely for countries.

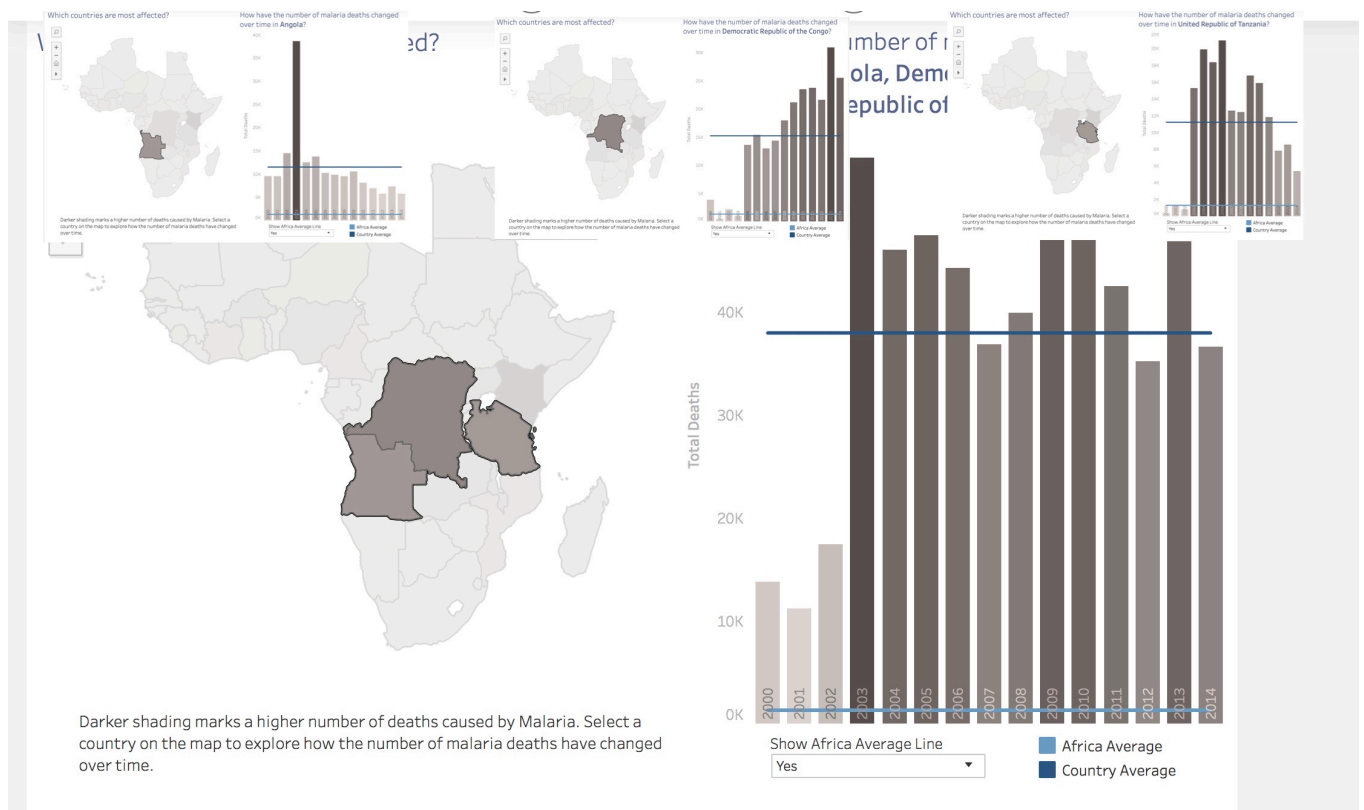


In our data, Kenya has the highest malaria deaths average per year which 27896 and Africa average year is 1303, so this is a significant difference number of malaria death.

Our graphs earliest data start with 2000 and Kenya year 2000 malaria death number is almost 50k, so this shows most likely a high previous malaria death history before which other practically all countries start a smaller number of malaria deaths.

In Kenya from 2000 to 2004 each year almost the same numbers of malaria death per year. In 2004 has a significant decrease so as we can see more than half amount of decrease from 2003 to 2004 so this point shows a big success of protection for many deaths, but as we can see after 2004, we have a significant increase in death.

An important point is after 2010 in Kenya has a vital decrease and the following years as we can see such a small number of deaths Kenya has.



Above graph shows us Angola, Democratic Republic of the Congo and United Republic Tanzania which three highest number of malaria deaths after Kenya.

Small graphs show each individual county changes over year and the big graph show us total three country malaria deats over the years.

As we can see a significant increase on 2003 and double number of malaria at this year coming from Angola.

Angola graph shows us in 2003 the highest number of malaria deaths for this country. Comparing over the year 2003 was very critical year for this countrt and after 2003 has a significant decrease also as we can see after 2004 they have a decreasing trend.

The second point is in our graph is Democratic Republic of the Congo has a increasing trend and we cannot see any remarkable decresing point so malaria death is still a big problem fo them in 2014.

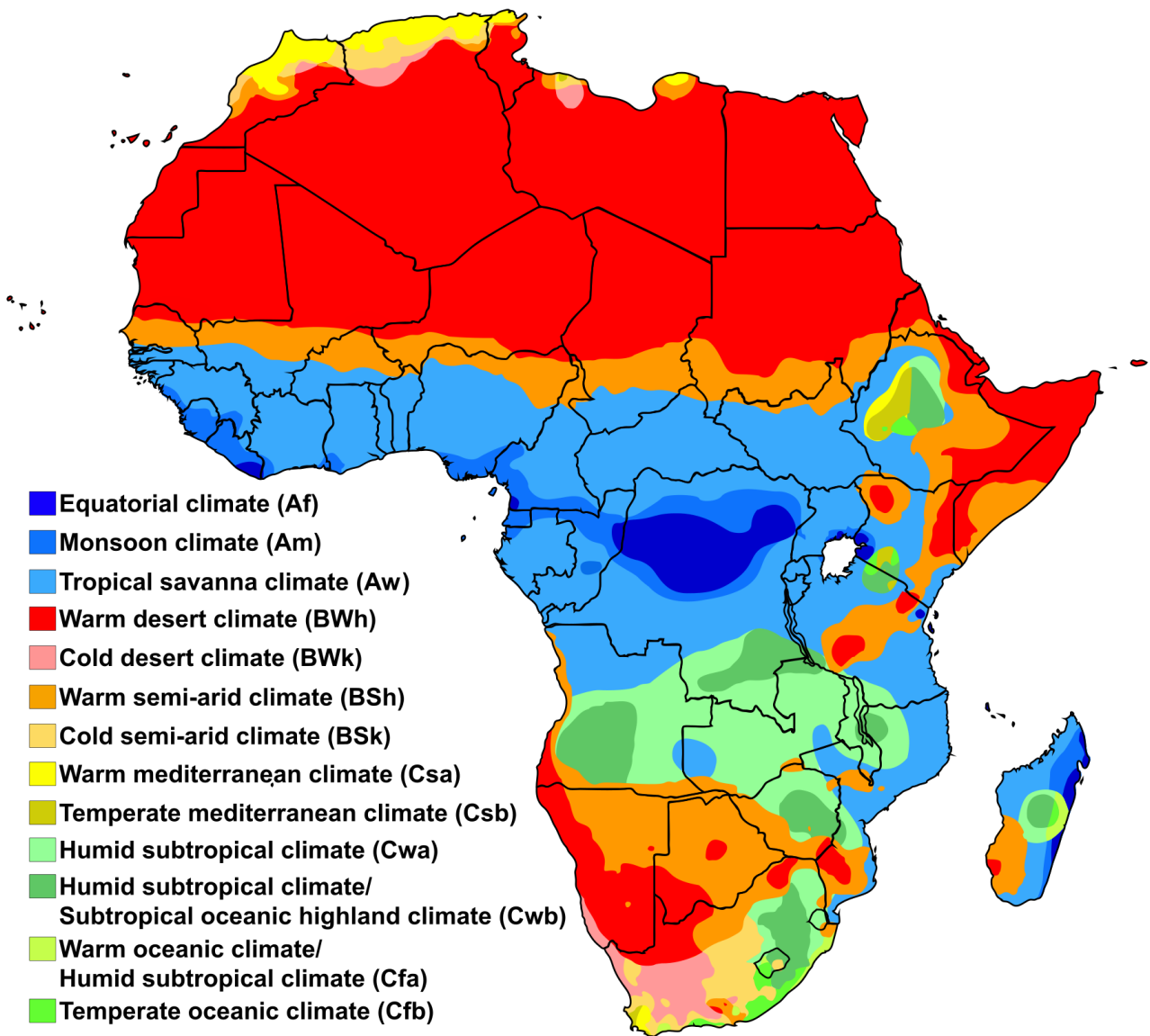
## Conclusion :

Malaria is most commonly transmitted by an infected female mosquito. The mosquito bite introduces the parasites from the mosquito's saliva into a person's blood Circulatory system. The parasites travel to the Liver where they mature and Reproduce [1].

Malaria number of deaths related to many factors such as population, quality of health system, economic factors and cultural effects but we will focus two crucial elements from our graph data.

One most important factor is temperature. Spreading fast disease related to the best temperature and factors for mosquitoes so tropical and humid climate affects the fast spread of malaria. Below Africa, temperature picture [2] shows how related highest malaria deaths with tropical and humid climate.(Blue and green areas).

## Africa map of Köppen climate classification



The second important point is as we can see starting malaria deats and critical points is different for each country so this shows us transports affected people from each country and also transport infected mosqiotes.

Erdem Alpkaya

**References:**

1 - *Wikipedia, Malaria.*

2 - *Wikipedia, Temperature of Africa graph*