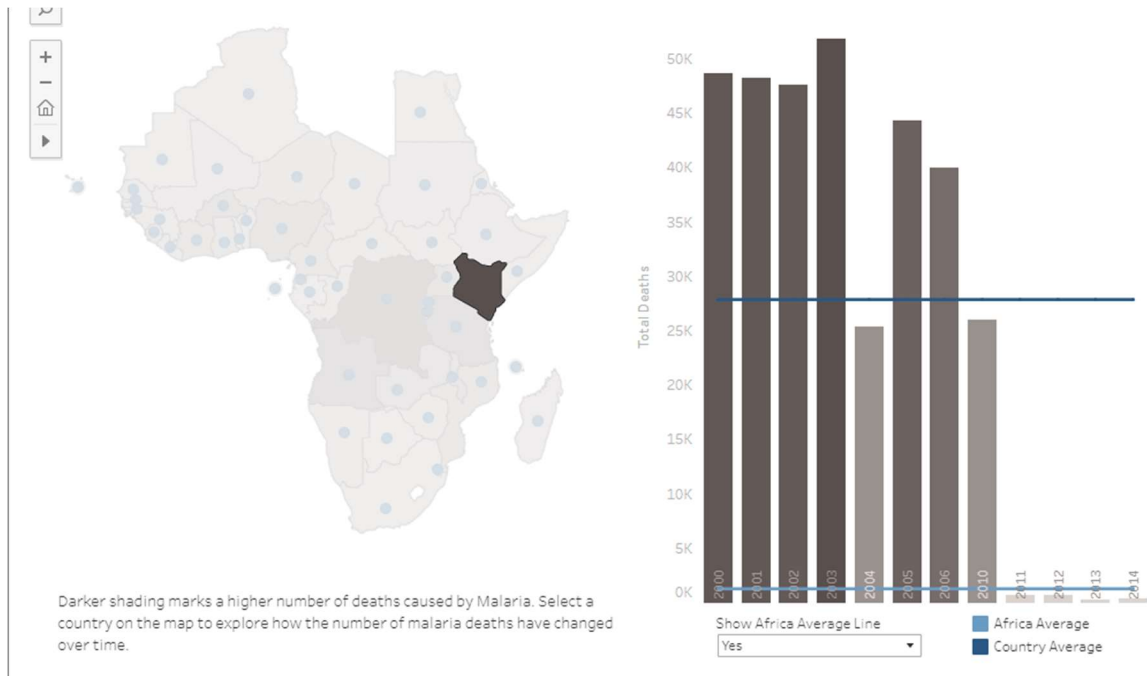


Project one: Mohamed Makki

Interpret a Data Visualization

1. Which country is the most affected by this disease (Malaria), and which are the least affected?



From the dashboard (above), the more darker color indicates the more affected area by the disease (you can click on different countries on the map and you'll notice that the darker the color the more counts of deaths), it is obvious that Kenya is the most darker shade we have in the map, and therefore the most affected by Malaria. and from the map and related bar chart that appears by clicking on the country map (in the above snapshot for the dashboard) we can tell the following:

The most affected country is Kenya, with average deaths of 27,896 per year or about 76 deaths per day (this figures can be obtained by simply put the mouse cursor on Kenya map), besides (the dark blue line on the bar chart represents the country's annual average deaths), which is far exceeding the average deaths for the continent as a whole (1303) deaths, though the number of victims has dramatically decreased from about 46k to 48k deaths during the first years from (2000 to 2002), but after reaching the peak in 2003 with a maximum count of about 53k deaths. However, the numbers abruptly dropped to more than a half with around 25k deaths in 2004; then it skyrocketed again next year (2005) with more than 44k deaths, before dropping again in the later years (2006 till 2010).

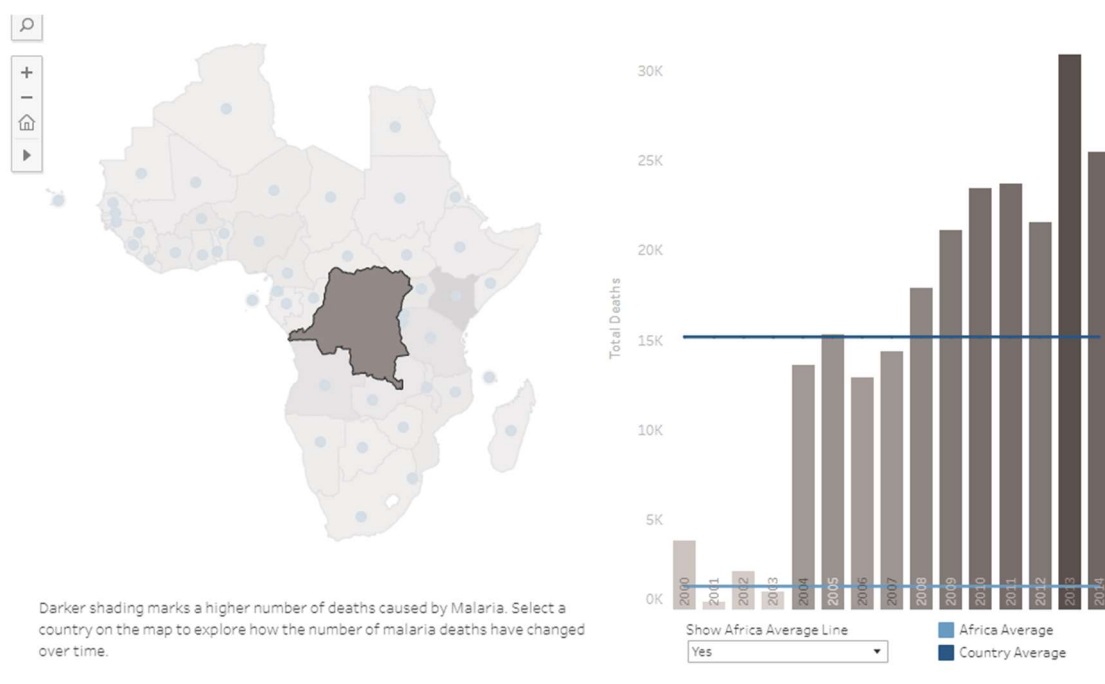
Finally, from 2011 onwards, the counts declined significantly to less than half Africa's average rate, reaching its minimum rate in 2013 and the subsequent year (2014). This implies that Kenya appears to have been successful in controlling the spread of this disease and, as a result, the number of deaths.

There is an obvious trend here that the number of deaths generally starts high and then decreased yearly until it reached its minimal count.

On the contrary, Algeria is the least affected country in the continent of Africa, with only one death per year on average, all of this information is available by simply putting the mouse cursor on the map of Algeria as we did in Kenya.

In general, we can see that the presence of dark hues (which represent greater counts of victims) is largely spread in the heart of Africa, and that these counts decline substantially as we head north or south of the continent.

2. Which country continues to see an increase in the number of deaths?

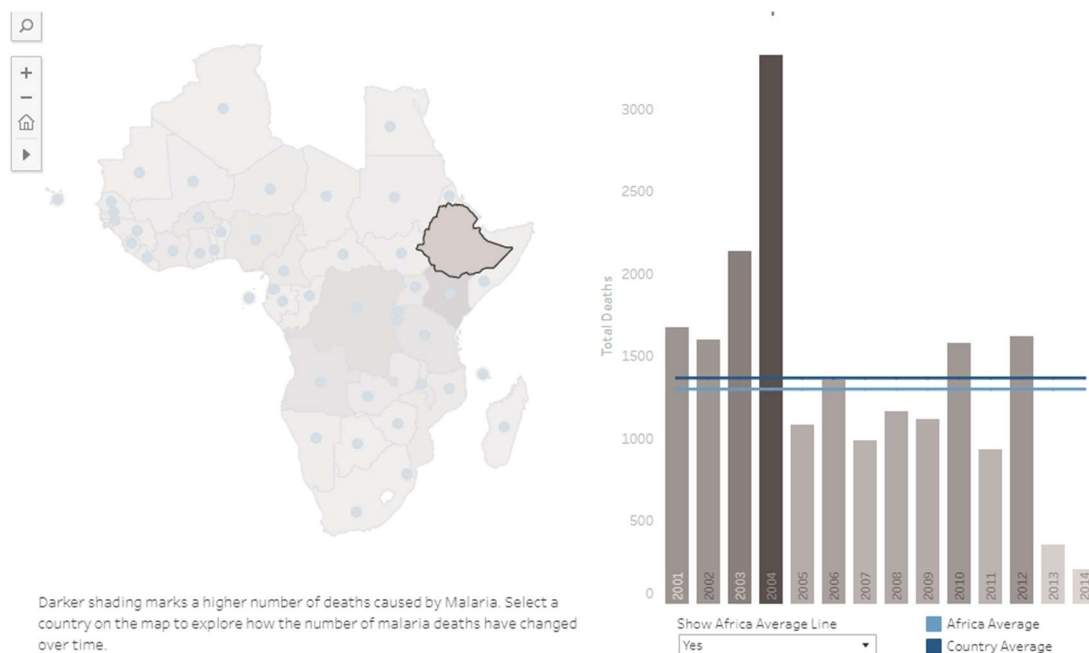


From the same map of Africa, the second darker area is Congo, by clicking on Congo map we can see that there is an entirely different pattern (compared to Kenya); in respect to the distribution of deaths throughout the years of study (from 2000 till 2014). So, by clicking on the map of Congo (as we did before in Kenya) we'll obtain the corresponding bar chart for this country, which will lead us to a different trend and the following insights:

With an annual average rate of (15,203) deaths, the Democratic Republic of the Congo is the second most affected country after Kenya, this means more than (41) deaths daily. But the main difference between (Congo) and (Kenya) is that the trend here is opposite to previous trend of (Kenya). the annual rate of victims still high in Congo and somehow it keeps increasing from year to year. Though the fact that the minimum number of deaths was less than a hundred in 2001. The number of deaths were relatively not quite high at the start years (2000 till 2003) with about (1000 to 4000) deaths yearly.

These figures are considered somewhat humble (yet they are sometimes above the African average) compared with the subsequent years. From 2004 and onwards the number of deaths start to rise dramatically from about 14k to more than 30k in 2013 (the maximum); though it dropped the next year (2014) to about 26 k (which is still high) but this does not guarantee that it will keep dropping in the later years.

3. How has the number of deaths in Ethiopia varied over time?



This time we'll click on Ethiopia map to obtain the information about this country and its bar charts for the deaths of Malaria over the same period (2000 till 2014); with another different trend for the victims of Malaria in this country. So based on the snapshot above (the map and the bar chart) we can tell the following

This country has an average annual Malaria death of (1370) persons, which is considered the nearest rate to the African continent, with (1303) deaths per year.

With a maximum count registered in 2004 around (3250) deaths. and a minimum number of 500 deaths in 2014. The number of deaths at the beginning of this study (year 2000) were a bit below 1300 deaths (almost Africa annual rate). Then it began to climb consistently in general until it reached its peak (the maximum) in 2007, then suddenly dropped the next year (2008) to around one-third (to about 750) deaths. afterwards the number of deaths keep constantly and gradually dropping till the final year (2014) when it reached its minimum figure.