Question 1: COVID

Grace Grant[a]

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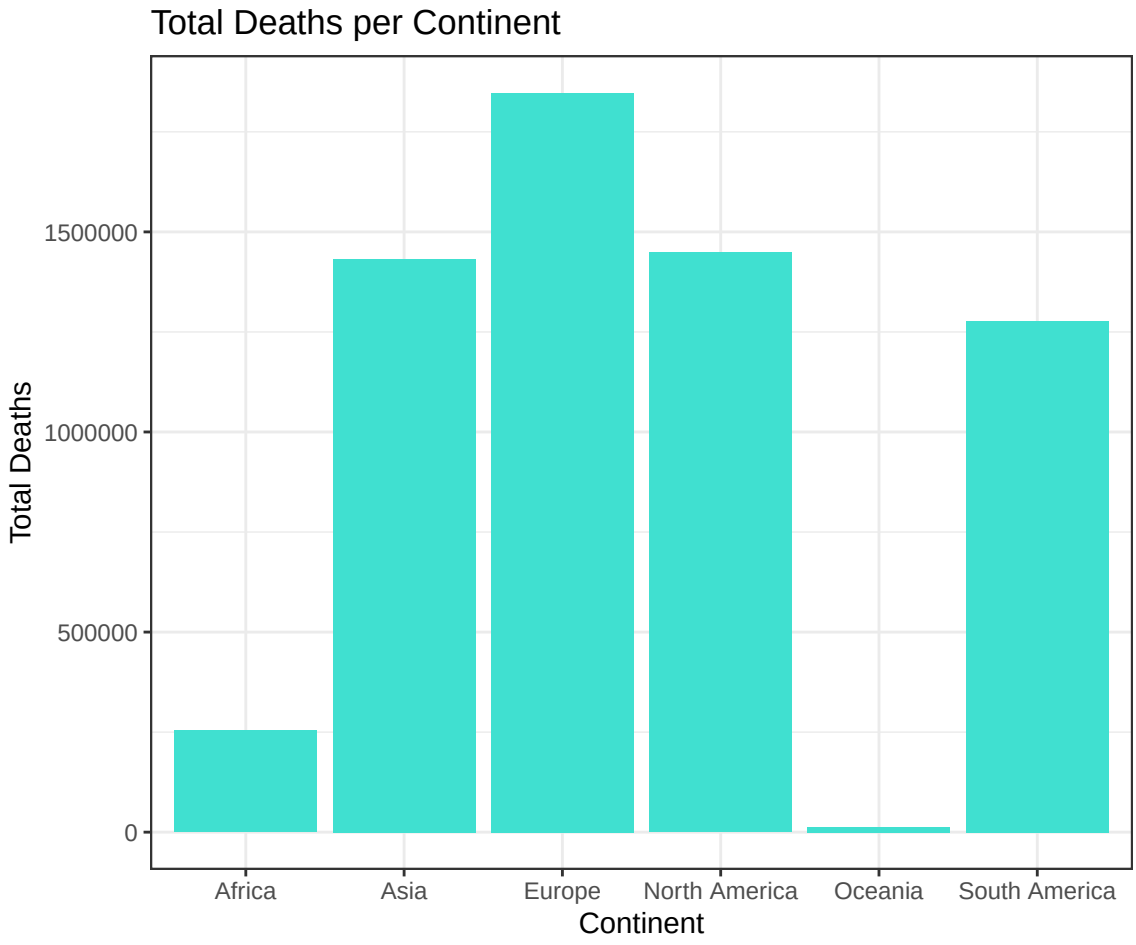
1. Total deaths per continent



We can see from the above graph how each continent was affected by the pandemic, according to the total number of deaths. Europe, North America and Asia had the highest number of deaths which

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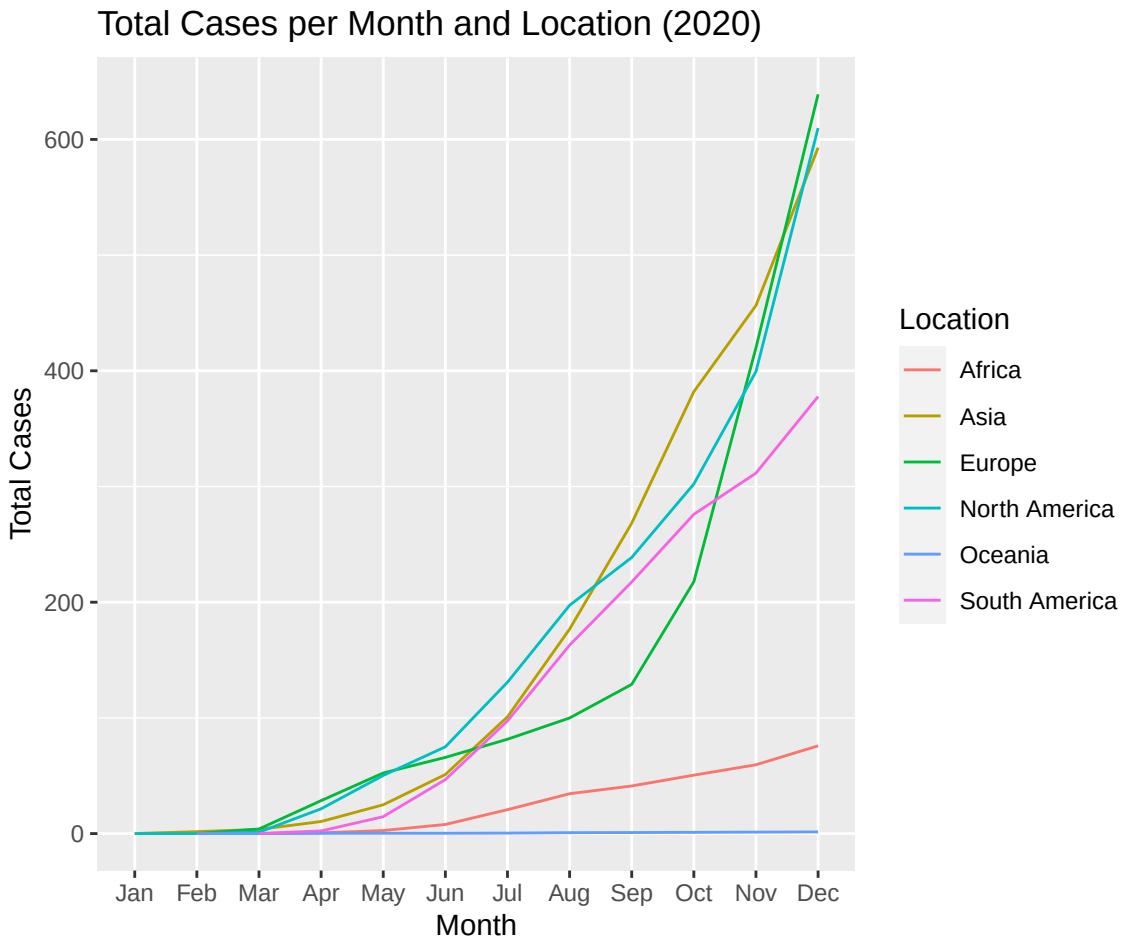
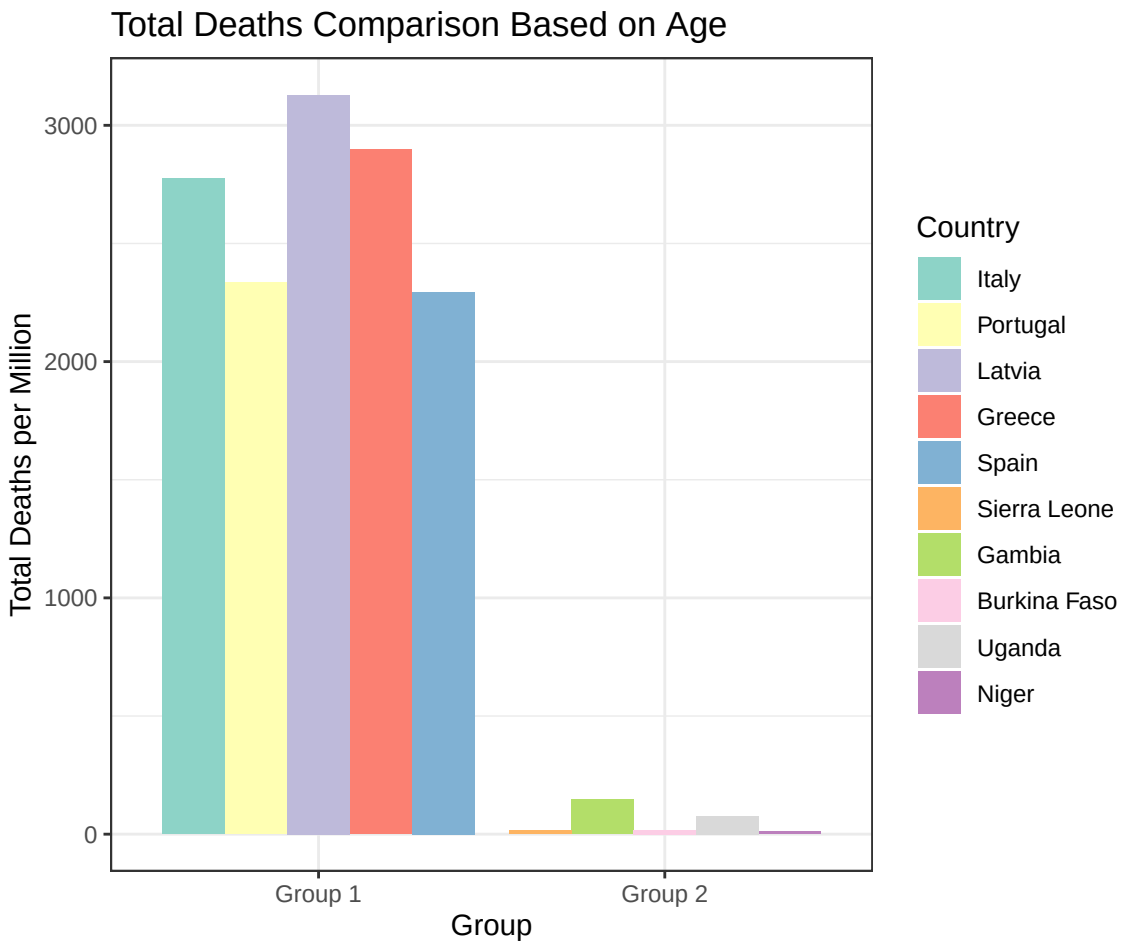
could be linked to their population sizes as well as the proximity in which people live in those regions. Africa and Oceania had the least deaths which could be a result of many factors, one of which is a lack of or incorrect reporting of deaths, especially in Africa.

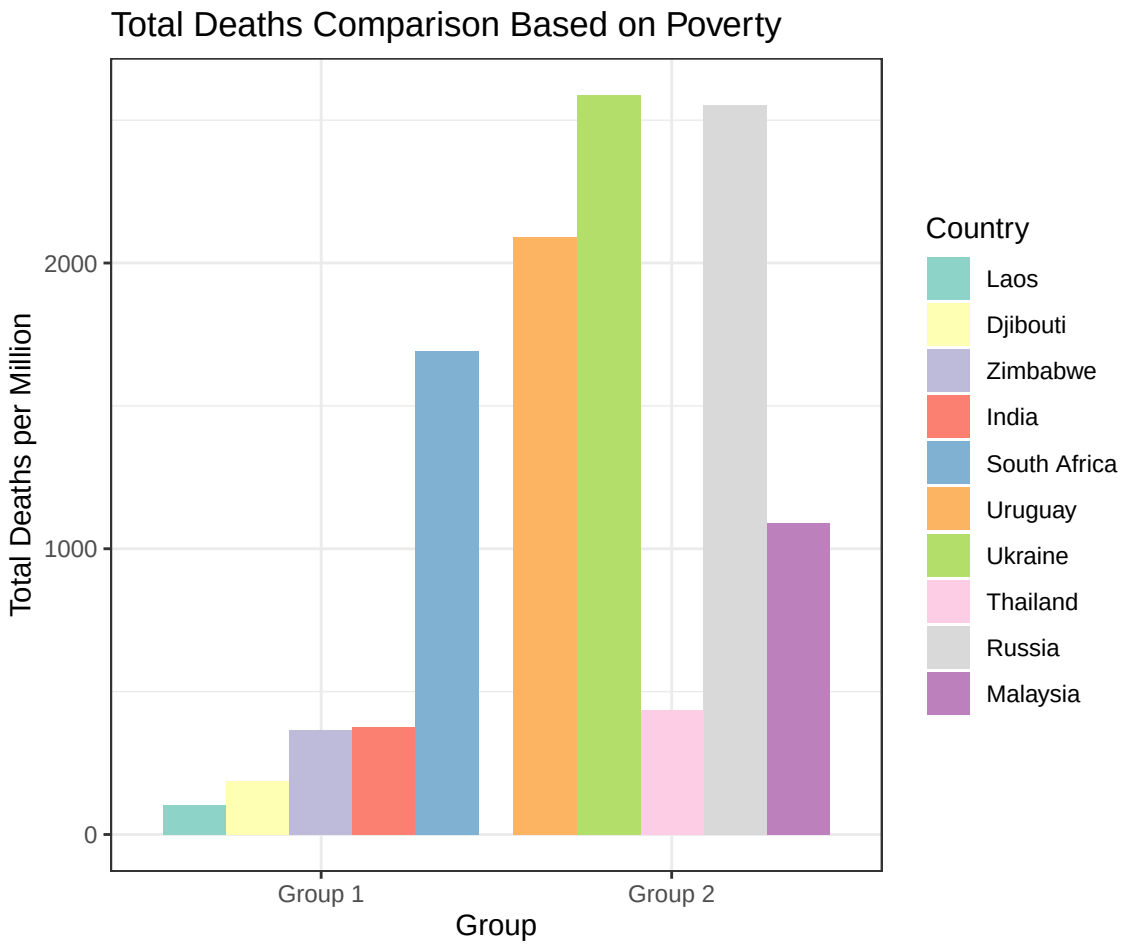
2. Trajectory of cases in 2020 per continent

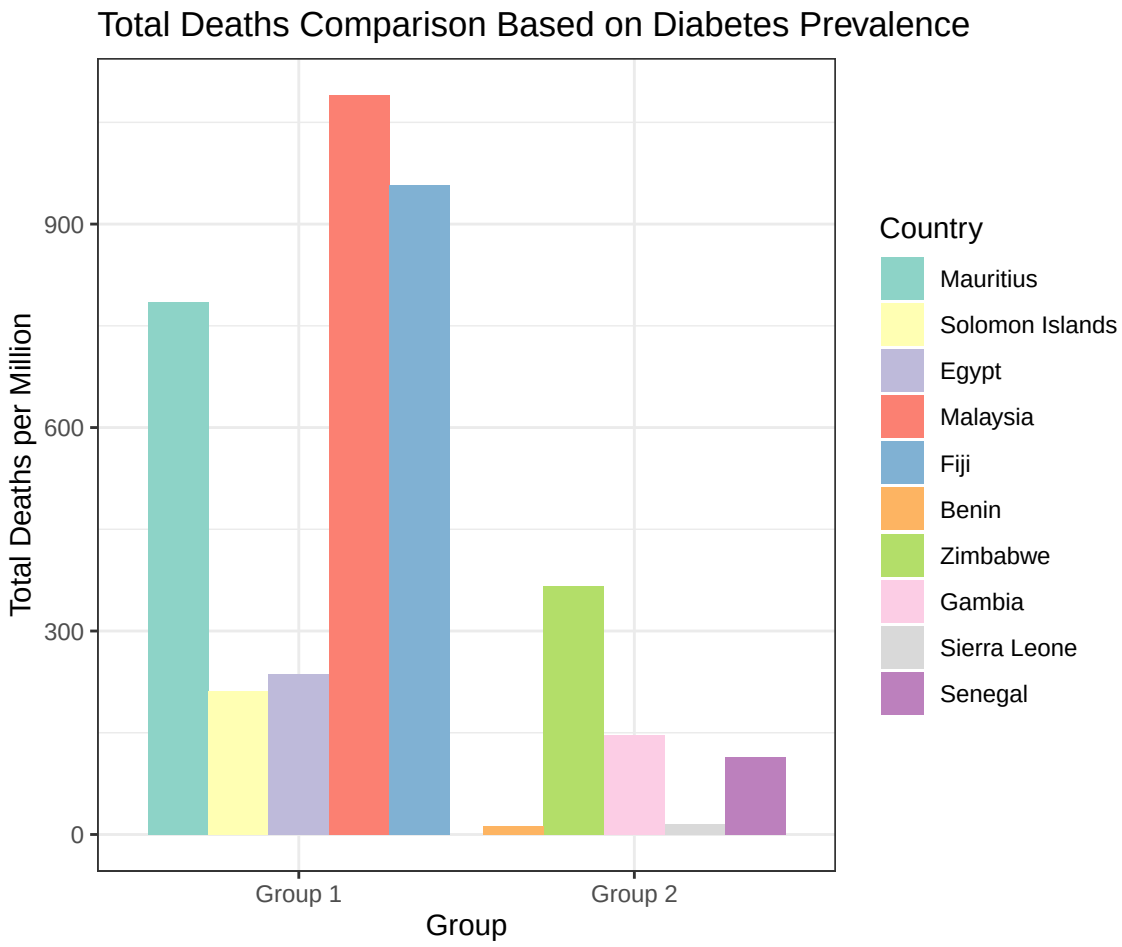


This graph provides some insight into how the different continents experienced the update of COVID cases in 2020 when the pandemic began. Similar to the previous graph, Africa had a much lower total number of cases compared to Europe, Asia and North America. It is also interesting to note that cases only began to pick up in Africa towards the middle of the year while, for the Northern Hemisphere, cases were already accumulating from March/April.

3. Total deaths in different countries based on population age, poverty and diabetes prevalence

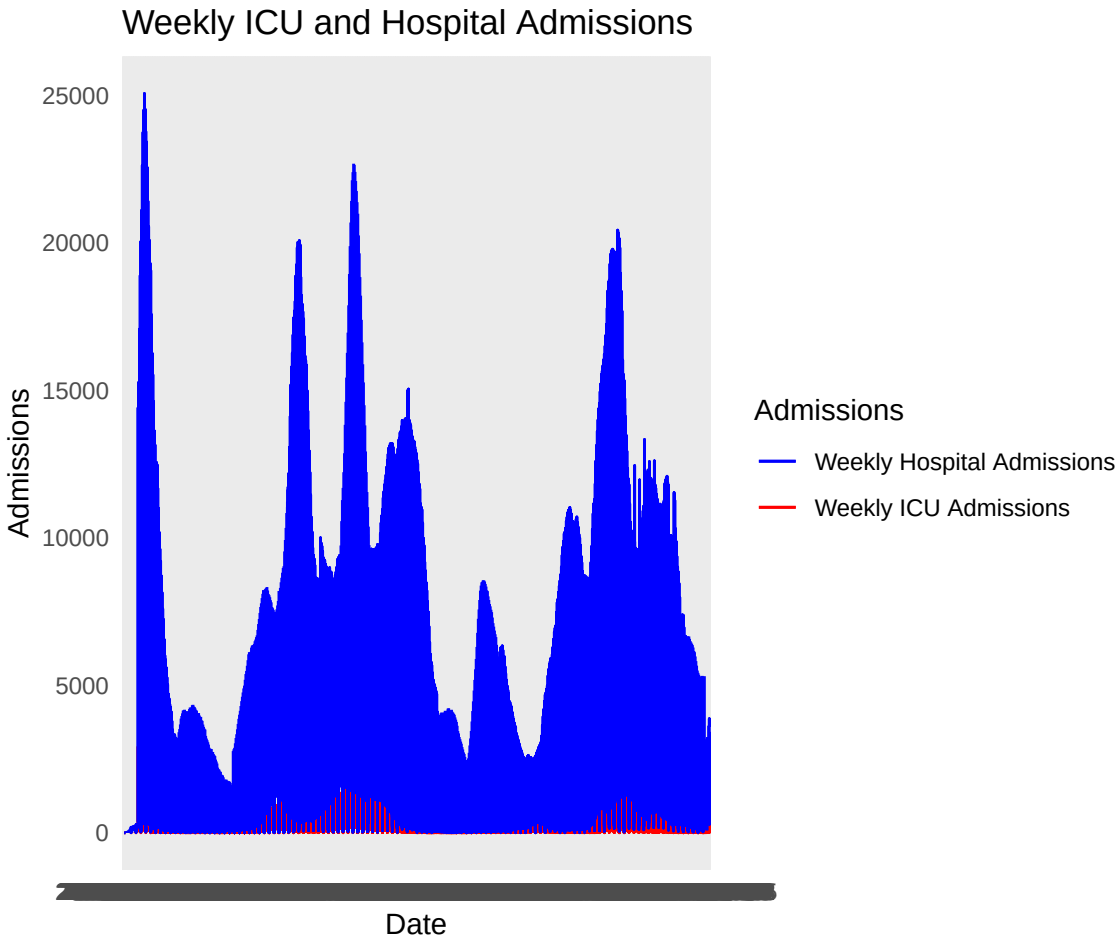



Total Deaths Comparison Based on Poverty
Total Deaths per Million
2000
1000
0
Group 1
Group 2
Group
Country
Laos
Djibouti
Zimbabwe
India
South Africa
Uruguay
Ukraine
Thailand
Russia
Malaysia



The three graphs provided produce some interesting results. Firstly, countries that had the highest percentage of the population aged older than 70 experienced much greater deaths than the countries that had younger populations. This makes sense given that older people are more susceptible to getting COVID and then dying from it. The third graph also makes sense, showing that countries with a higher prevalence of diabetes had more deaths from COVID. However, the second graph is somewhat counterintuitive in that poorer countries (those with higher levels of extreme poverty) mostly had fewer deaths than wealthier countries. Some reasons for this may be that the poor countries are in Africa which has the fewest deaths or that the metric for poverty includes so many other factors that it is difficult to establish a strong correlation between poverty and deaths from COVID.

4. Weekly ICU and hospital admissions



It is also interesting to consider hospitalisation figures, which are shown by weekly ICU and weekly hopsital admissions in the above graph. It is evident that ICU admissions are much lower and that they also lag hospital admissions in some cases. This indicates that patients might move into ICU after initial hospitalisation as their condition deteriorates. However, ICU admissions sit mostly in line with spikes in hospital admissions, suggesting that severe cases generally align with overall hospitalisation.