



COVID-19

RESEARCH ANALYSIS

By Team: Blue Crane



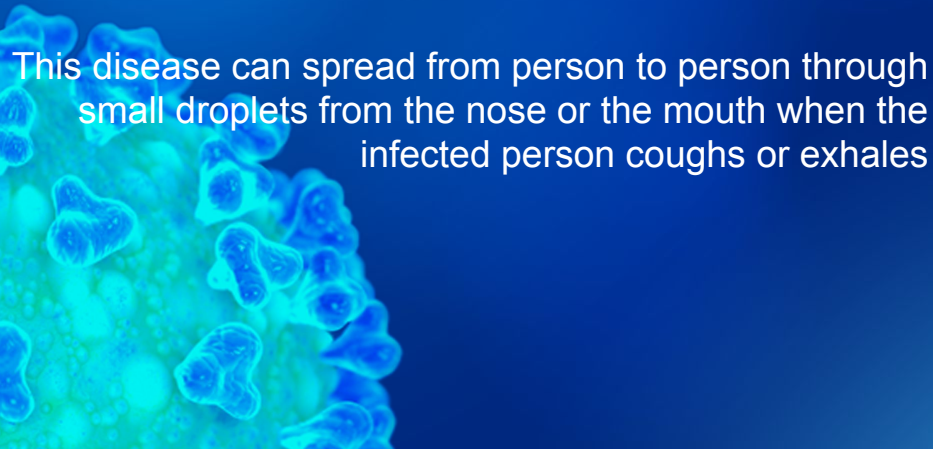
CONTENTS

1. Introduction to the Project
2. Global Data Analysis
3. US Data Analysis
4. US states Data Analysis
5. Racial tracker
6. Resources

SOME FACTS ABOUT COVID-19

COVID-19 is an infectious disease caused by the recently found virus known as SARS-CoV-2 (or coronavirus). Before the outbreak originated in Wuhan, China on December 2019, there was no information about this virus

The oldest common ancestor of coronavirus has been dated as far back as the 9th century BC.



This disease can spread from person to person through small droplets from the nose or the mouth when the infected person coughs or exhales

SARS-CoV-2 binds tightly to human cells.

CODE to Create the Country Map

We used Plotly to create an interactive html map that we could use to show the Covid-19 information by hovering the mouse over a certain country

```
import plotly.tools as tl
import plotly.express as px
import plotly.offline as py
from plotly.offline import iplot
import plotly.graph_objects as go
from plotly.subplots import make_subplots

#World Map with Total Confirmed and Total Recovered
fig = px.scatter_mapbox(New_df, title="World Map with Total Confirmed and Total Recovered", lat="latitude", lon="longitude", hover_name="Country",
                        hover_data=["TotalRecovered", "TotalConfirmed"],
                        color_discrete_sequence=["fuchsia"], zoom=3, height=300)
fig.update_layout(mapbox_style="open-street-map")
fig.update_layout(title_x=0.5,
                  title_y=0.95,
                  mapbox={"style": "carto-positron", "center": {"lon": 2, "lat": 47}, "zoom": 4.8},
                  margin={"l": 0, "r": 0, "b": 0, "t": 80})
fig.show()
fig.write_html('first_figure2.html', auto_open=True)
```

Countries where Covid 19 is Active



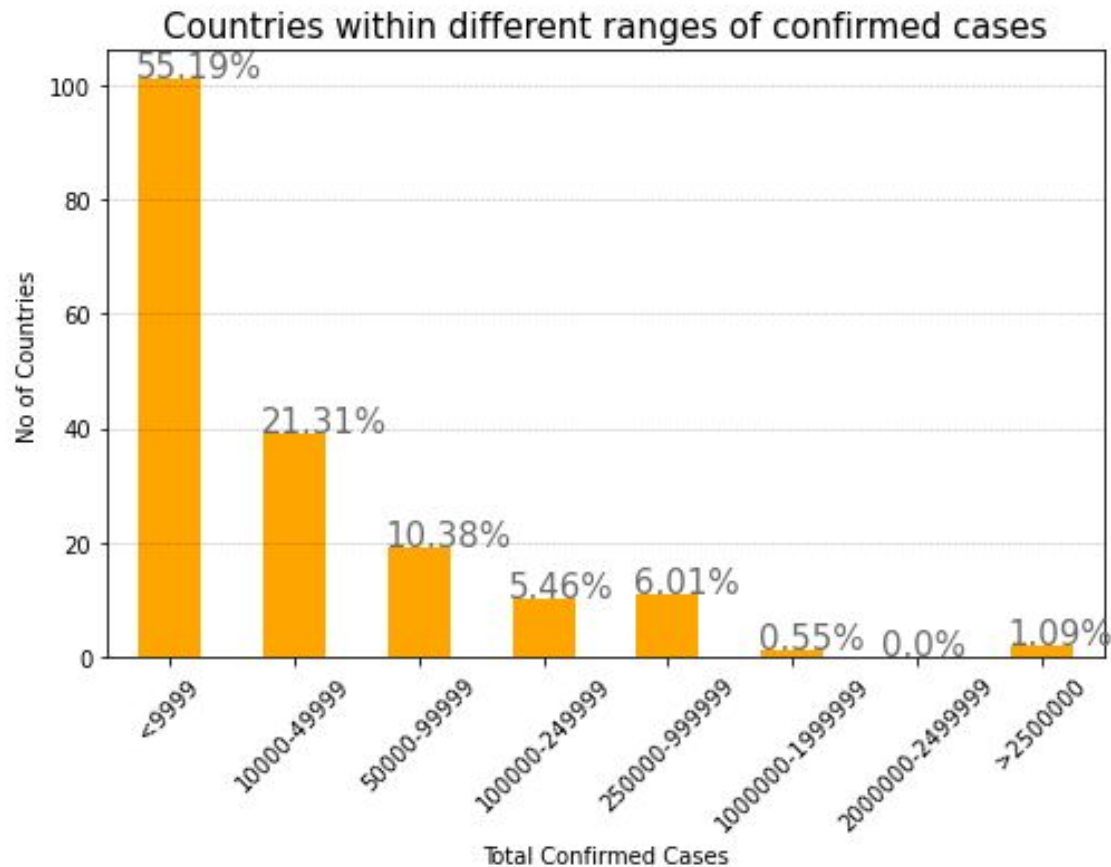
**Each Country with
a pink dot has an
active Covid-19
Pandemic**

US Statistics

World Map with Total Confirmed and Total Recovered

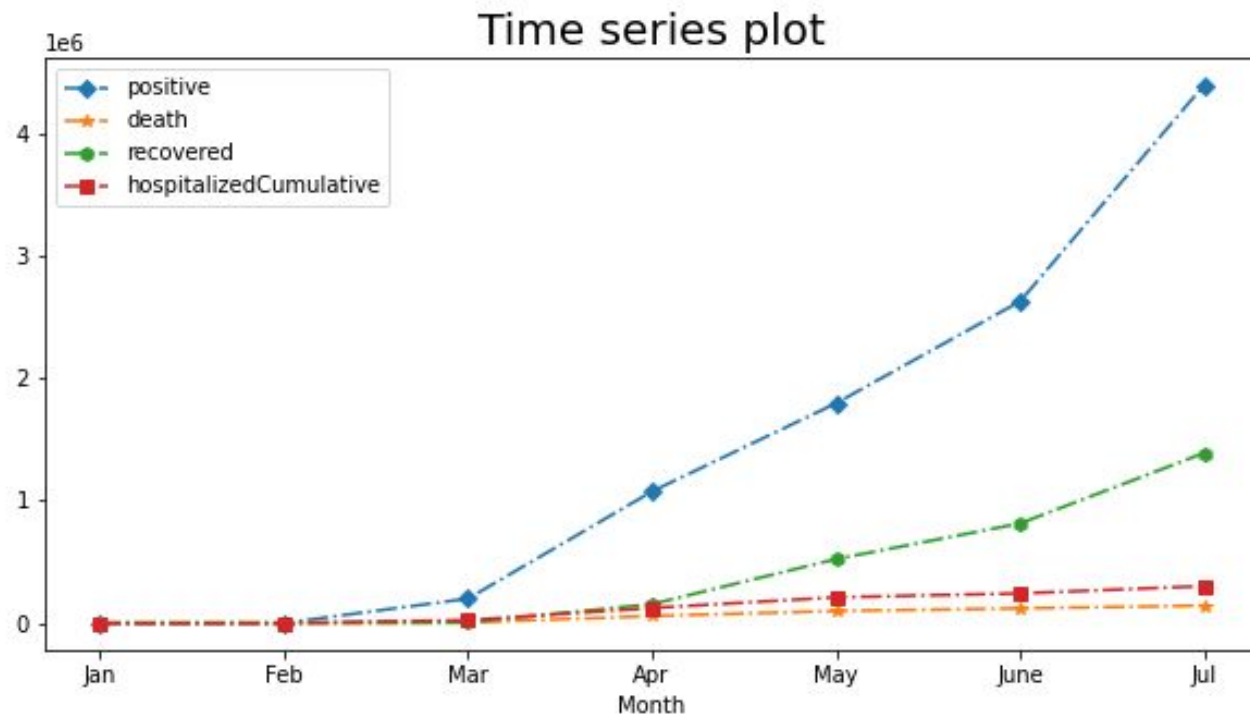


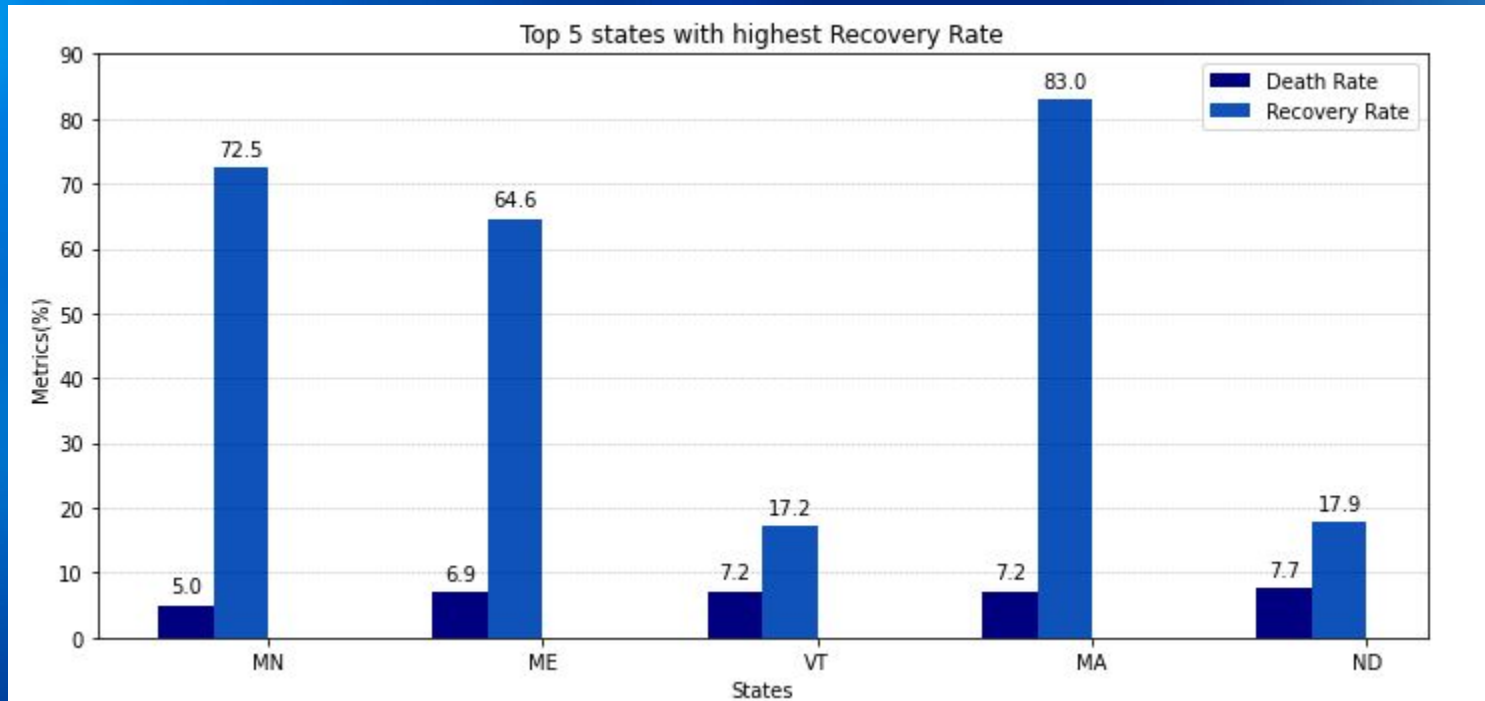
As of Today the US has over 4.4 million confirmed cases and over 1.3 people which have recovered



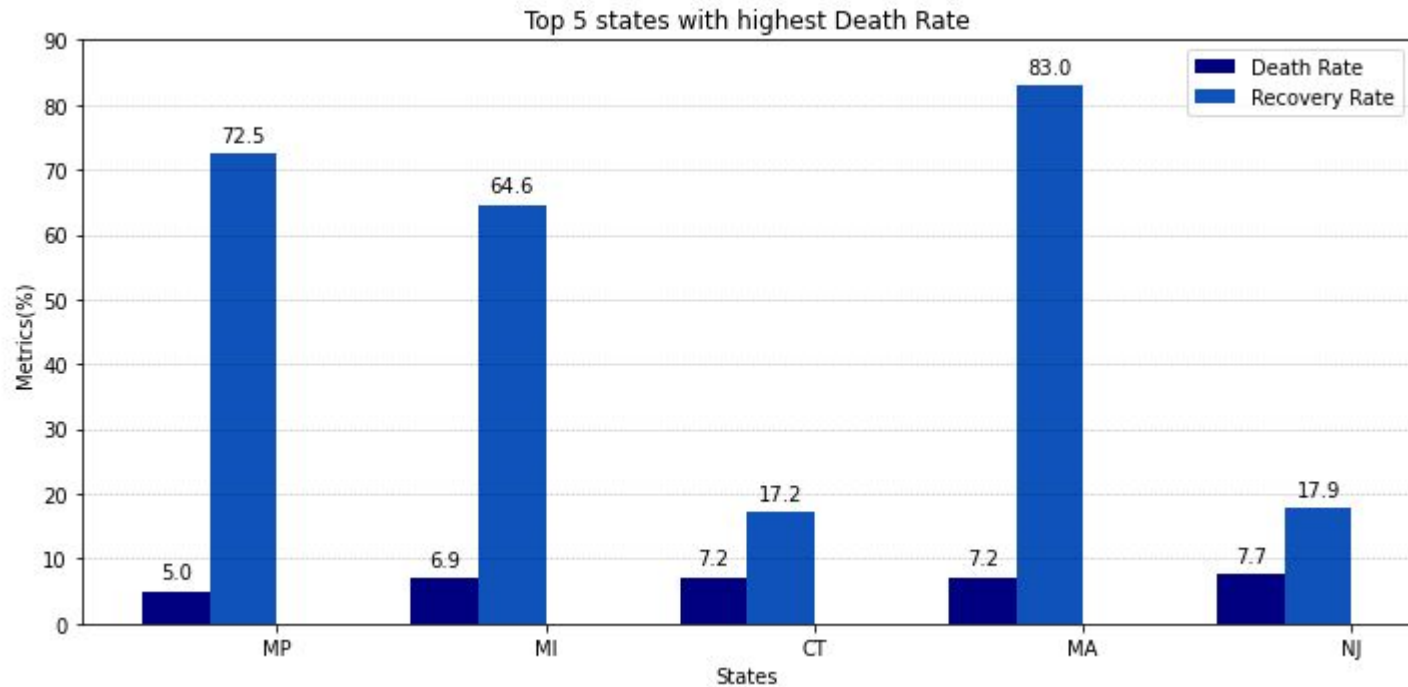
55% of the total no of countries had less than 99999 of confirmed cases.

Time series plot for US cases over the months





MA has the highest Rate.



NJ has the highest death rate compared to the other states.

You saw the percentages on the top of Bar Chart?

This is how we did it:

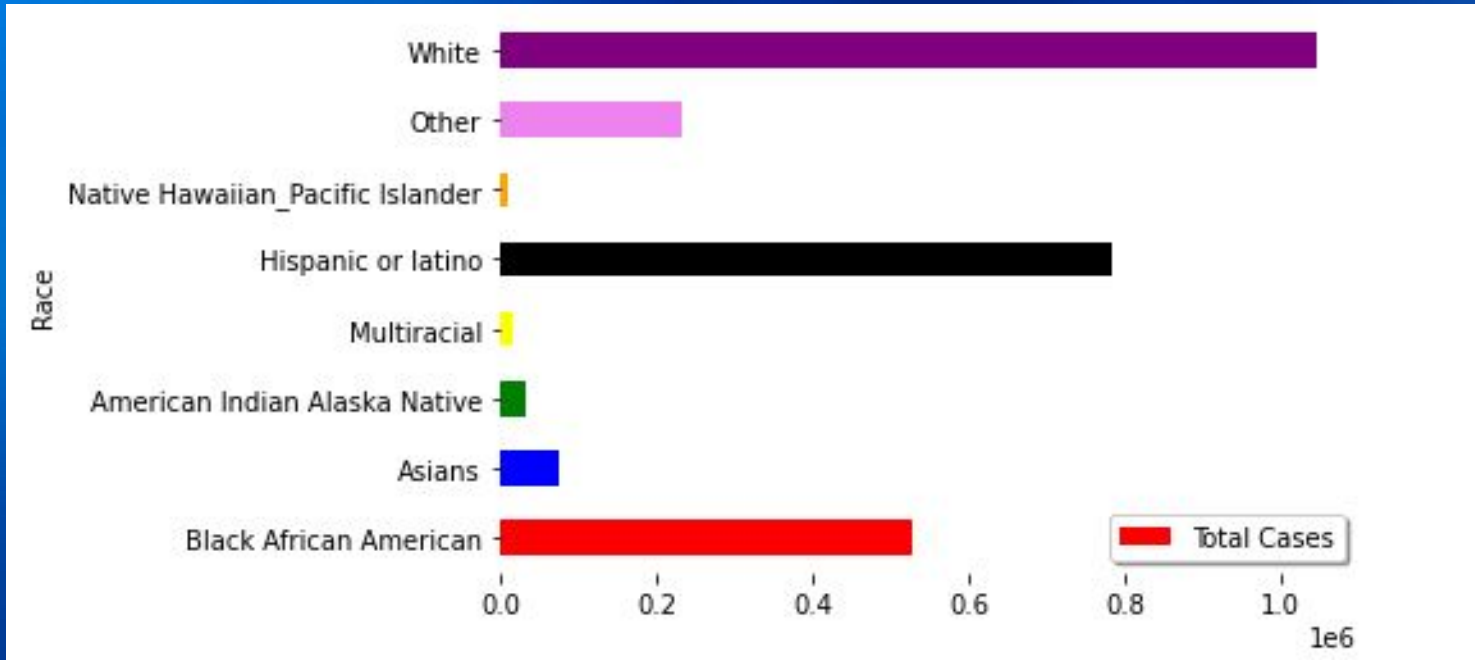
```
fig, ax = plt.subplots(figsize=(10,5))
width = 0.2 # width of bar
x = np.arange(length)
ax.bar(x, Death_df["Death Rate"], width, color='#000080',
label='Death Rate')
ax.bar(x + width, Death_df["Recovery Rate"], width,
color='#0F52BA', label='Recovery Rate')
for p in ax.patches:
    ax.annotate(format(p.get_height(), '.1f'),
                (p.get_x() + p.get_width() / 2., p.get_height()),
                ha = 'center', va = 'center',
                xytext = (0, 9),
                textcoords = 'offset points')
```

COVID Racial data

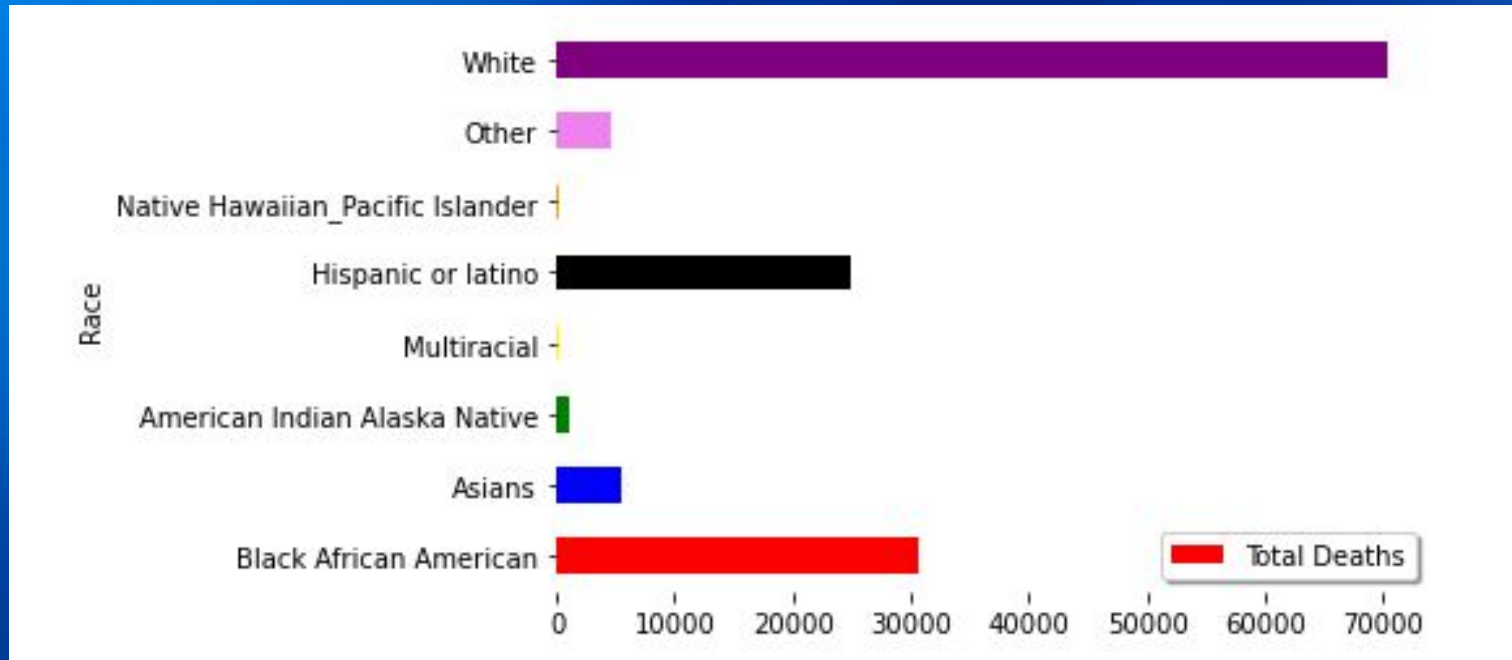
1. COVID-19 is affecting Black, Indigenous, Latinx, and other people of color the most
2. We pulled latest data & analyzed impact of COVID for different races in USA

Here we present the analysis

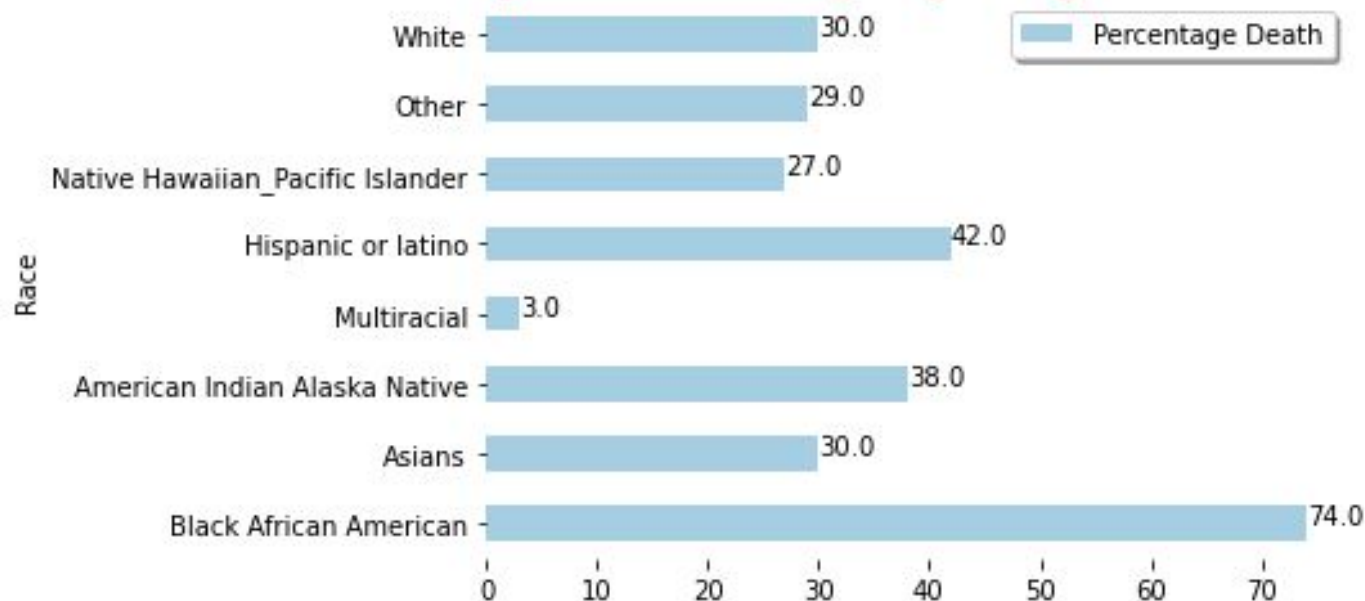
Total cases reported by Race



Total deaths reported by Race



Deaths per 100,000 people by race or ethnicity



Nationwide, Black people are dying at 2.5 times the rate of white people.

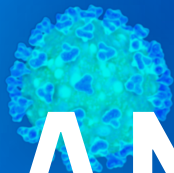
Resources

<https://covidtracking.com/>


<https://covid19api.com/>

<https://data.census.gov/cedsci/table?q=United%20States&g=0100000US&tid=ACSDP1Y2018.DP05>

<https://plotly.com/python/>



THANKS!



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