



Countries Affected by COVID-19

# SARS-COV-2

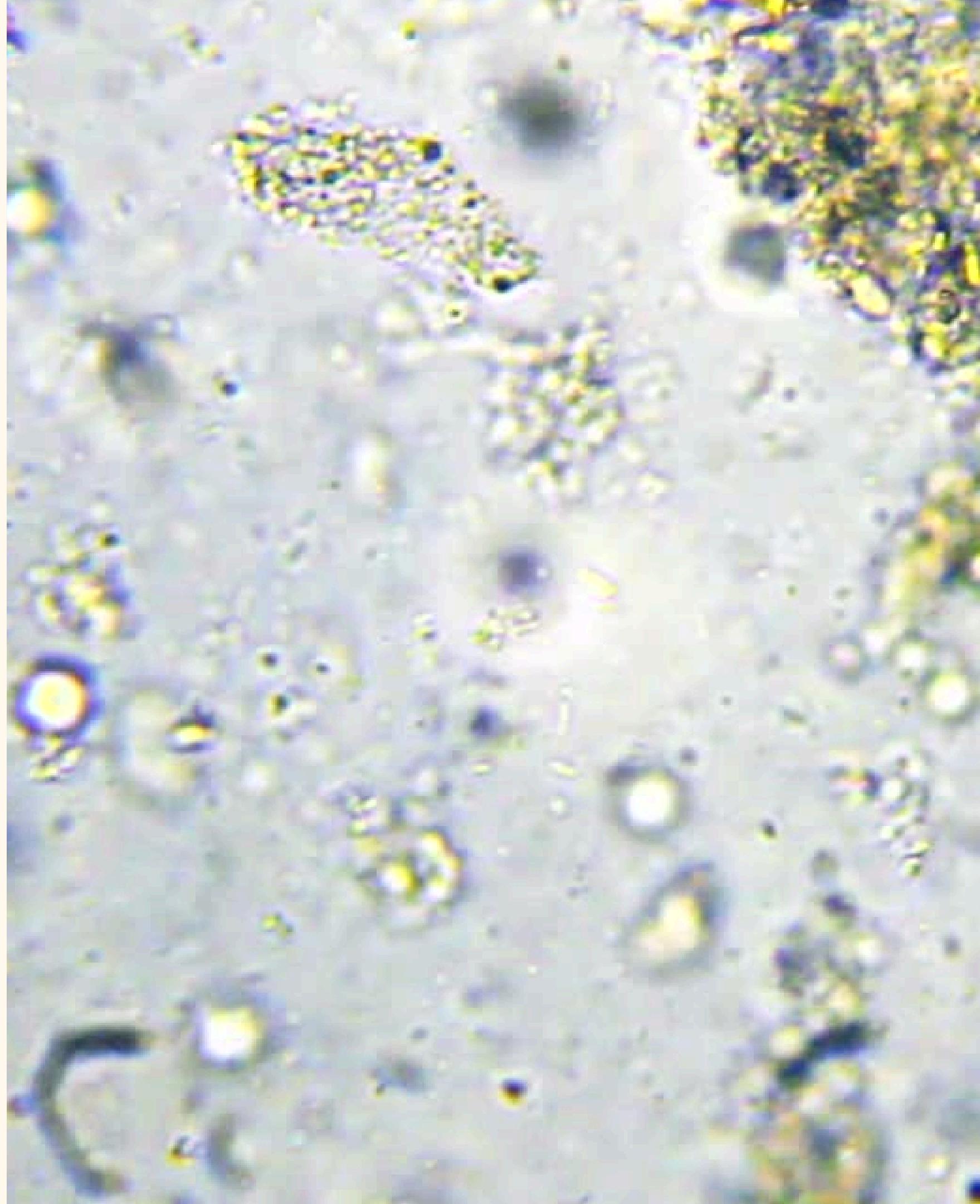
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Amar Patil, Andrew Montemayor, Sabina Kamalova, Earl Lewis

# Introduction

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The COVID-19 pandemic has profoundly impacted lives across the globe, affecting countries in various ways and to extents no one would have imagine. We aim to highlight the nations that have been most impacted by the pandemic and to analyze their respective recovery levels. By examining the disparities in how countries were affected, we can gain a more clear understanding of the global response to COVID-19 and the ongoing efforts to rebuild in the aftermath of this crisis.



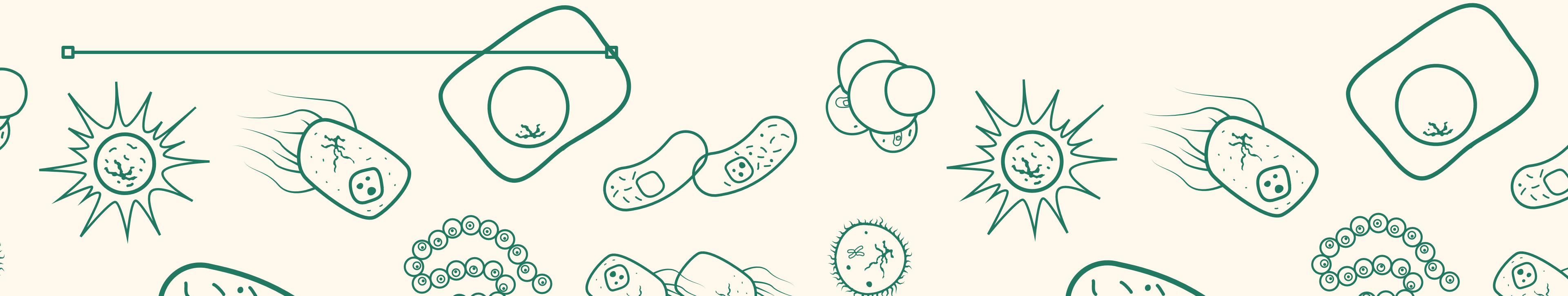
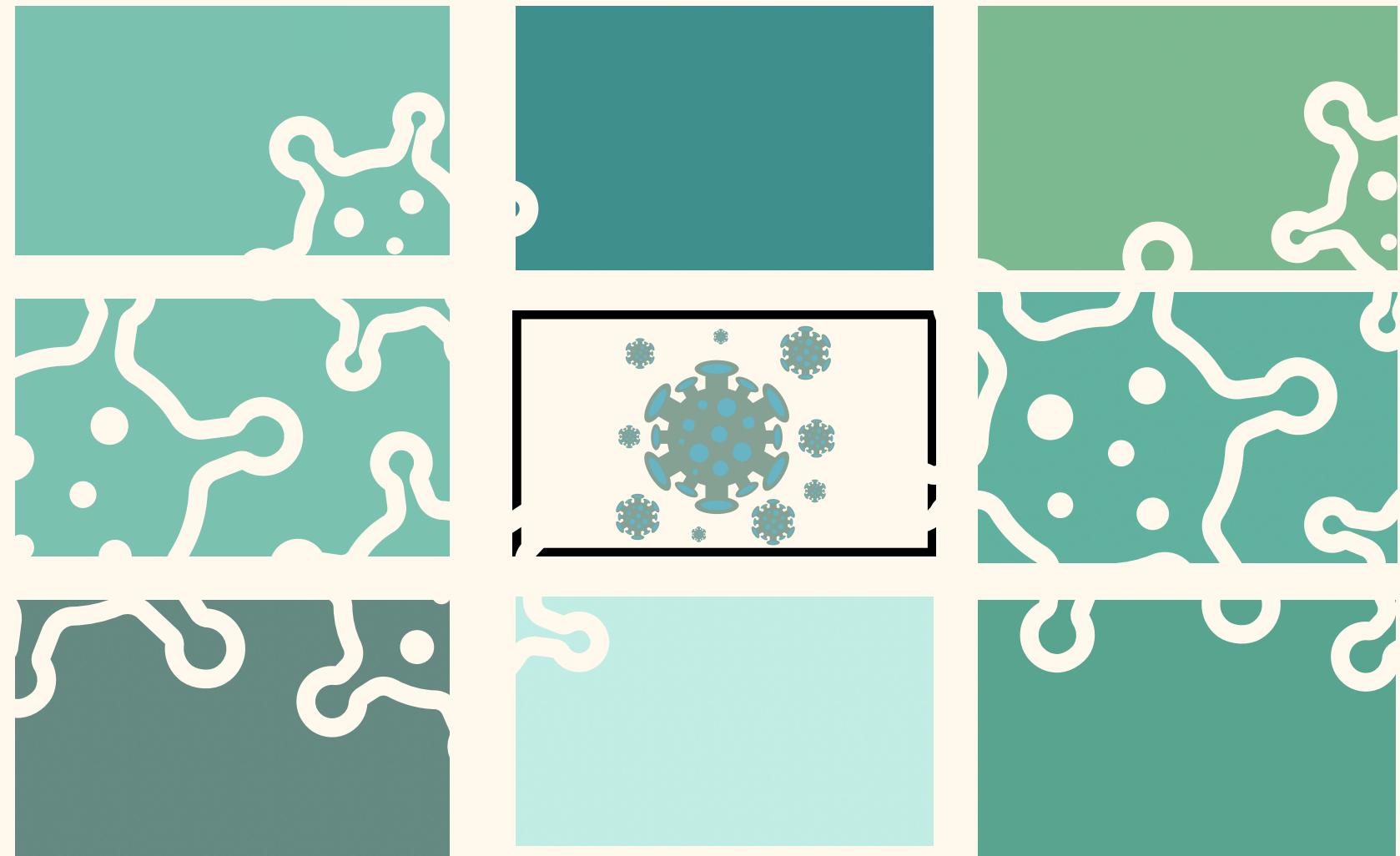
# Data Cleaning/Database creation

- Dropped all rows with null values, as the population of those countries was deemed insignificant.
- Merged the COVID-19 dataset with additional data on continents, latitude, and longitude.
- Converted relevant string values to integers for better analysis.

New Caledonia	79,845	314	79,526	5	98,964	290,915
French Polynesia	77,957	649	N/A	N/A		284,164
Eswatini	74,133	1,422	72,676	35	1,048,704	1,184,817
Guyana	72,950	1,294	71,357	299	717,867	794,045
Belize	70,660	688	69,949	23	576,016	412,190
Fiji	68,820	883	66,780	1,157	667,715	909,466
Madagascar	67,827	1,419	66,370	38	524,209	29,178,077
Sudan	63,742	5,001	58,284	457	562,941	45,992,020
Mauritania	63,665	997	62,437	231	1,009,957	4,901,981
Cabo Verde	63,229	413	62,756	60	401,622	567,678
Bhutan	62,605	21	61,564	1,020	2,303,734	787,941
Syria	57,453	3,164	54,289	0	146,269	19,364,809
Burundi	53,492	38	53,391	60	345,742	12,624,840
Seychelles	50,665	172	50,446	53		99,426
Gabon	48,981	306	48,674	1		2,331,533
Andorra	47,839	165	47,563	111		77,463
Papua New Guinea	46,750	670	43,982	2,091		9,292,169
Cura??ao	45,986	295	44,720	97		165,529
Aruba	43,993	236	42,438	1,319		307,609
Tanzania	42,664	846	N/A	N/A		50
Mayotte	42,002	188	N/A	N/A		
Mauritius	41,652	1,043	39,943			75
Togo	39,354	290	39,061			03
Guinea	38,240	467	37,757			07
Isle of Man	38,008	116	N/A			13,8
Bahamas	37,491	833	36,366			03
Lesotho	34,790	723	25,980			85,
						339
						400,516
						1,221
						2,175,699

# Color choice

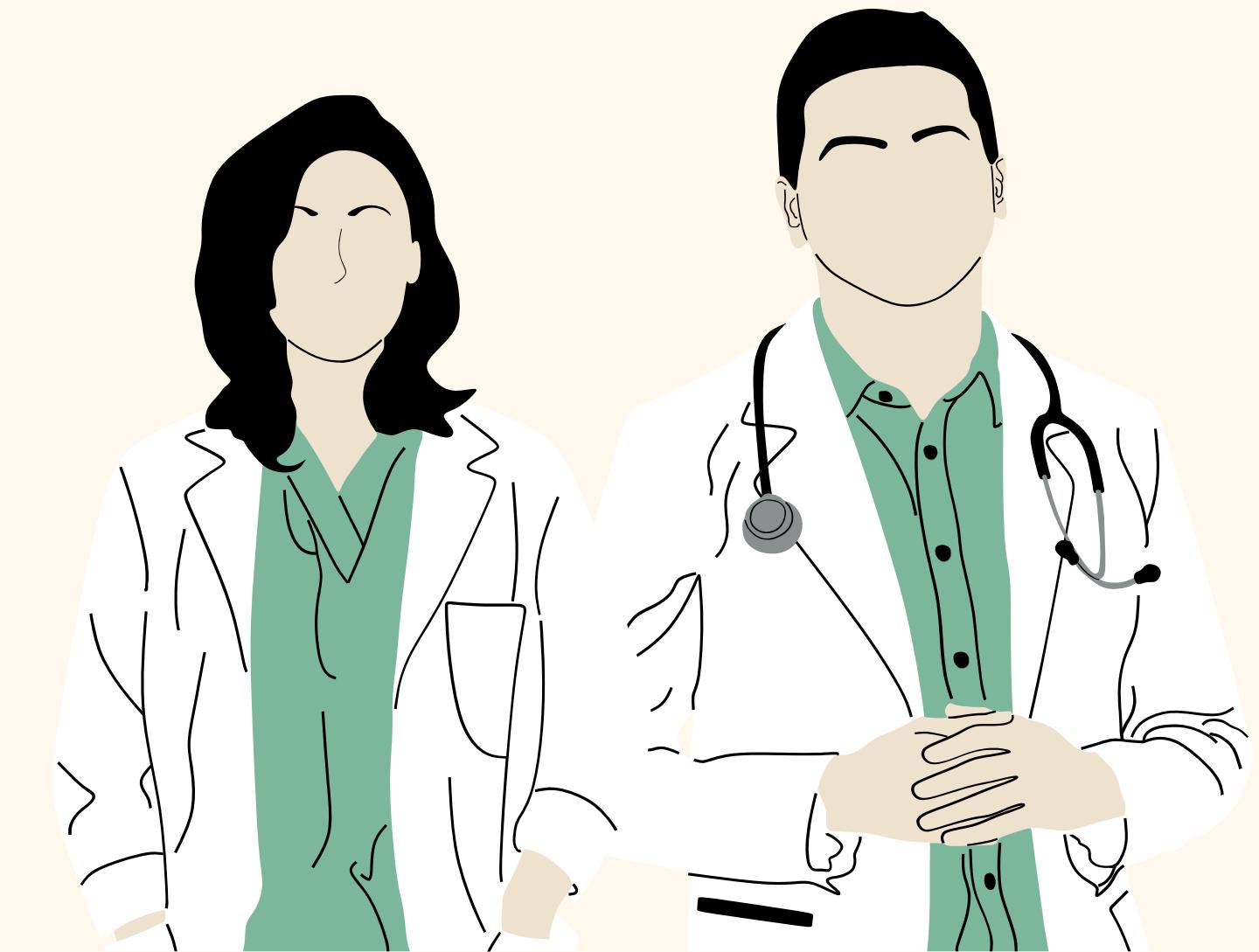
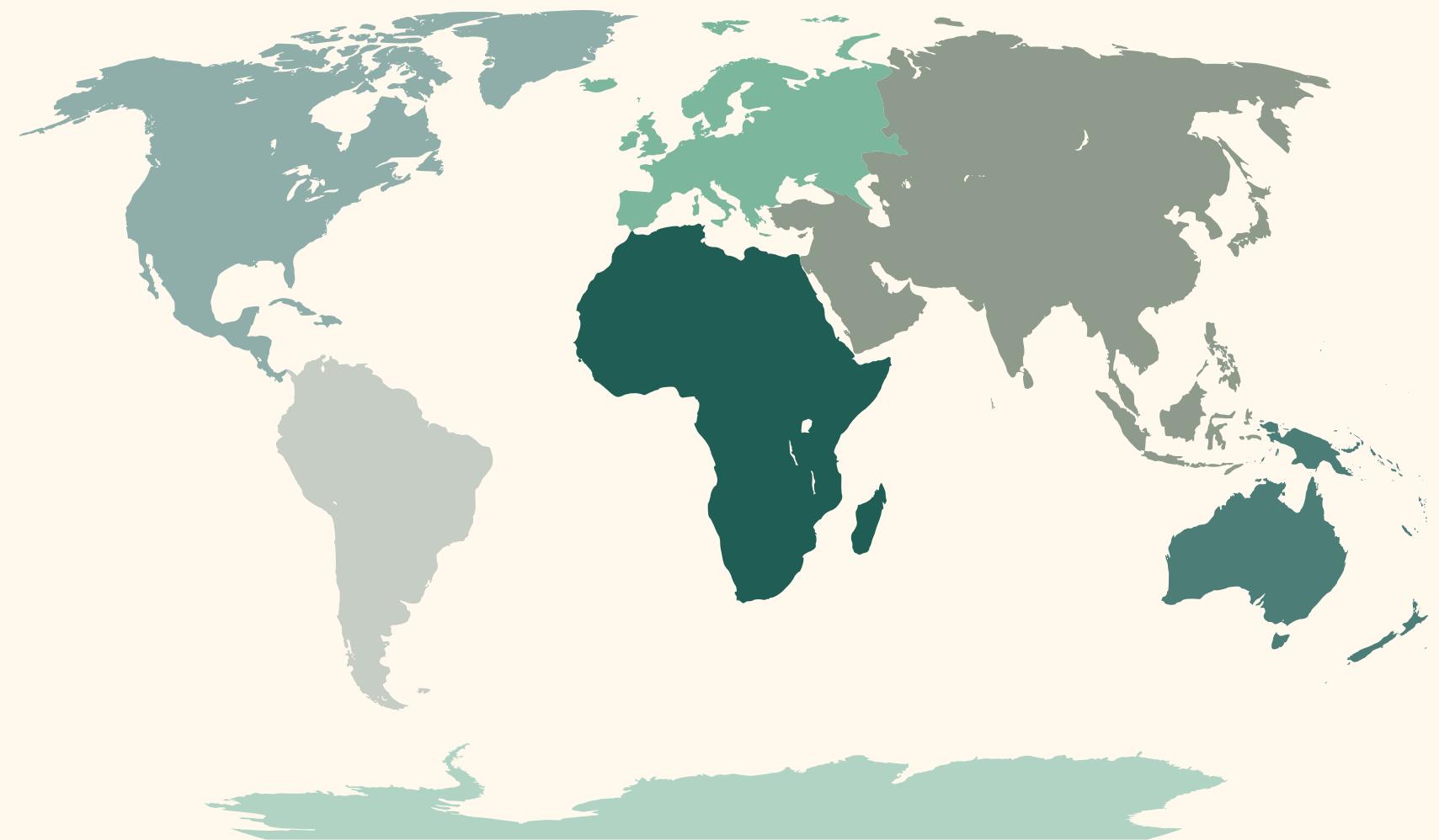
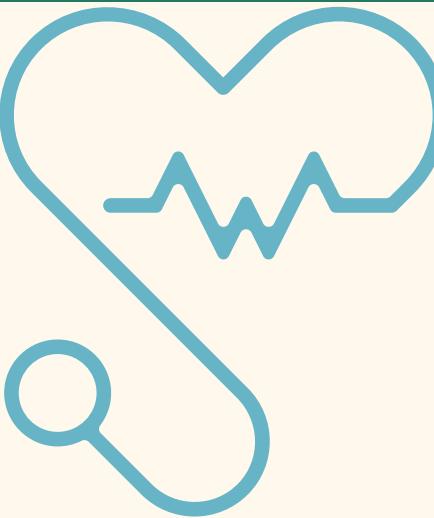
We chose a minty/green/teal color because it's often linked with germs in media, where green symbolizes illness, slime, and decay. This association is further reinforced by the fact that some bacteria produces green pigments.



# Research Questions

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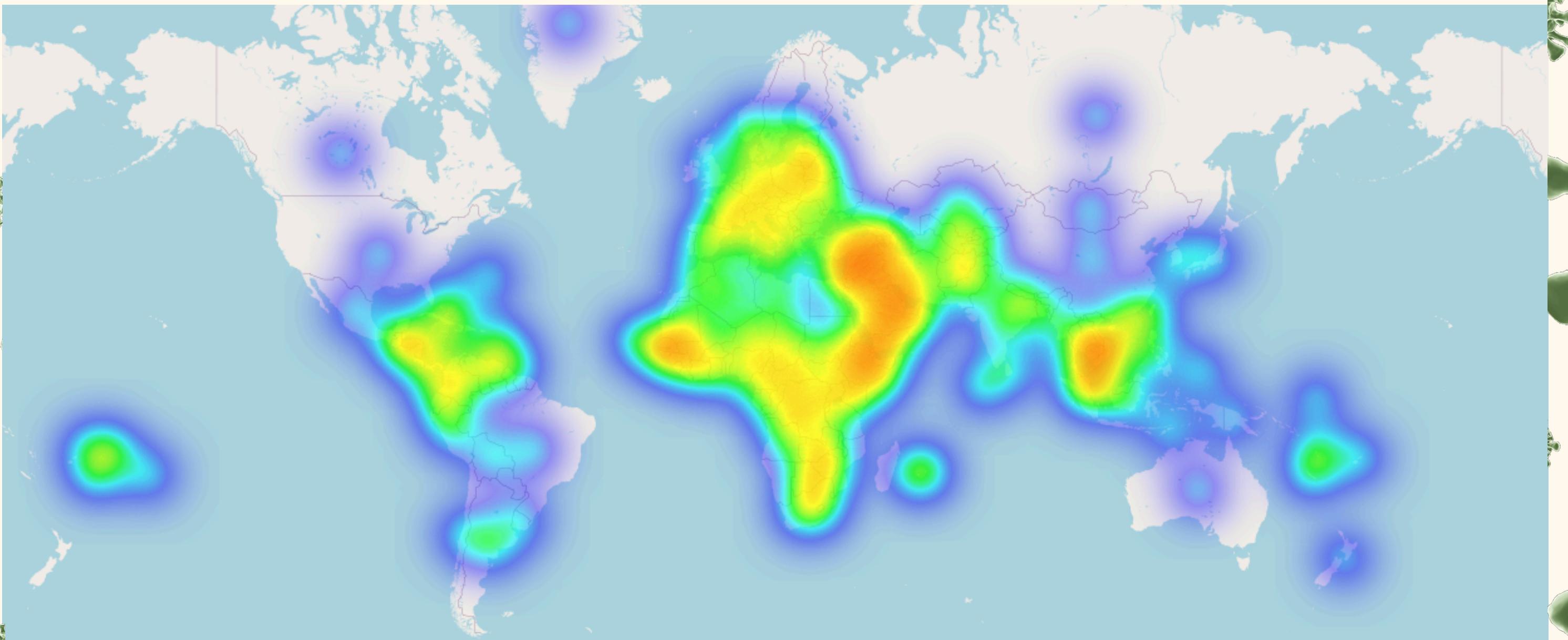
- 1. Does latitude influence the number of COVID-19 cases?**
- 2. Does the continent affect the number of COVID-19 cases?**
- 3. Which are the top 10 countries with the highest number of COVID-19 cases?**



# Question 1

## Does latitude influence the number of COVID-19 cases?

Total Cases and Latitude were considered to study this impact. It can be observed that the Total Case density is increased in areas closer to the equator, this needs to be further investigated. The increase in density near the equator may be due to factors like higher population density warmer climates that encourage social gatherings, and increased travel in these regions.



# Question 2

## Does the continent affect the number of COVID-19 cases?

Total Test and Cases were considered to study this impact

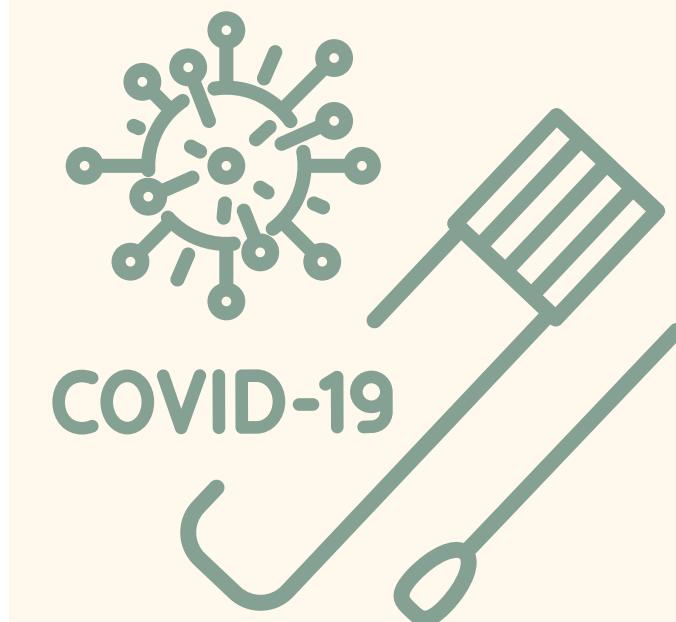
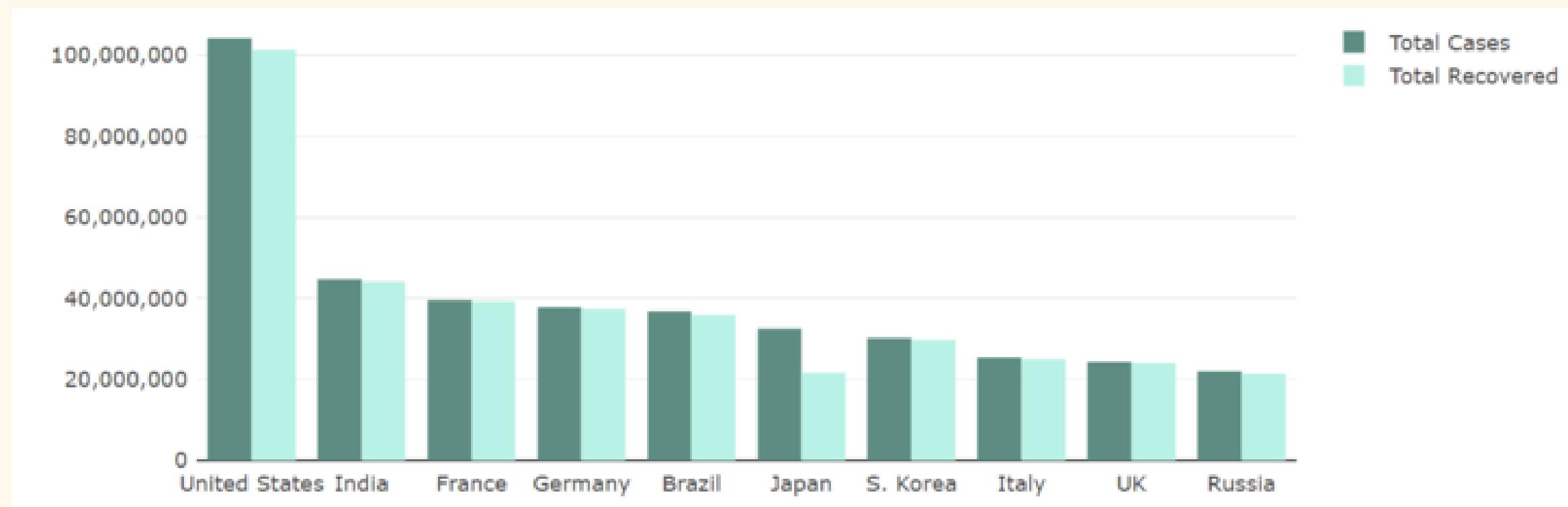
It can be seen that Continent or location does not have any impact on recovery. But the death cases were highest in Africa and lowest in Europe based on Total test ratio.

COVID-19 death rates were higher in Africa due to weaker healthcare infrastructure, delayed vaccine access, or higher prevalence of pre-existing conditions. Limited data reporting and crowded living conditions also contributed, while Europe's stricter public health measures helped reduce the virus's impact.

Continent	TotalTest_TotalCases_Ratio	TotalTest_TotalDeath_Ratio	TotalTest_Population_Ratio	TotalCases_Recovered_Ratio
Oceania	6.44	3633.76	2.10	1.01
Europe	11.39	1567.33	4.16	1.02
Asia	11.50	1377.90	0.55	1.08
North America	10.56	815.66	2.23	1.04
Africa	9.39	454.64	0.08	1.05

# Question 3

Which are the top 10 countries with the highest number of COVID-19 cases?



These are the top 10 countries that have experienced significant outbreaks due to various factors including large populations, high population density, and extensive international travel. The numbers have been influenced by the availability and accuracy of testing, reporting practices, and public health responses. When comparing total COVID-19 cases with recoveries, countries with the highest case numbers, like the United States (100M), India(44M), and Brazil, also report substantial recoveries. This reflects the impact of strong healthcare systems, extensive testing, and access to vaccines.

# Website architecture

# Covid -19 Impacts

The COVID-19 pandemic dramatically altered the fabric of daily life across the globe, affecting everything from economic stability to personal well-being. Businesses, especially small and local ones, faced unprecedented challenges as lockdowns and restrictions were implemented to curb the spread of the virus. Many of these businesses, unable to sustain prolonged closures or adapt quickly to the changing environment, were forced to shut down permanently. This led to significant job losses and financial instability for millions of people.

The ripple effects were felt across industries, with the global supply chain experiencing severe disruptions. Essential goods became scarce in some regions, leading to price increases and making it difficult for many people to access necessities. The shift to remote work became a defining feature of the pandemic era, and while some individuals and companies thrived under this new model, others struggled. Those without reliable technology or a stable internet connection found it particularly challenging, deepening the digital divide and exacerbating existing inequalities.

On a personal and social level, the pandemic's impact was equally profound. The prolonged isolation caused by social distancing measures took a significant toll on mental health. Many people experienced heightened levels of stress, anxiety, and loneliness, as they were separated from loved ones and faced the constant uncertainty of the situation. The fear of contracting the virus and the grief of losing friends or family members added to the emotional strain.

Additionally, the pandemic exposed and often worsened pre-existing inequalities, particularly in access to healthcare and social services. Vulnerable populations, including the elderly, low-income families, and those with pre-existing health conditions, were disproportionately affected. Despite these overwhelming challenges, there were also moments of resilience and solidarity. Communities came together in new ways, supporting one another through mutual aid networks and acts of kindness.

The rapid development and distribution of vaccines provided a much-needed sense of hope, signaling a possible end to the crisis and a path forward toward recovery. While the pandemic's effects will be felt for years to come, the collective response has also shown the capacity for innovation, adaptation, and compassion in the face of adversity.

We developed this website to showcase the impact of COVID-19, not just in our country but across the entire world. Our aim is to provide an in-depth perspective on how the pandemic has influenced lives, economies, and societies globally.

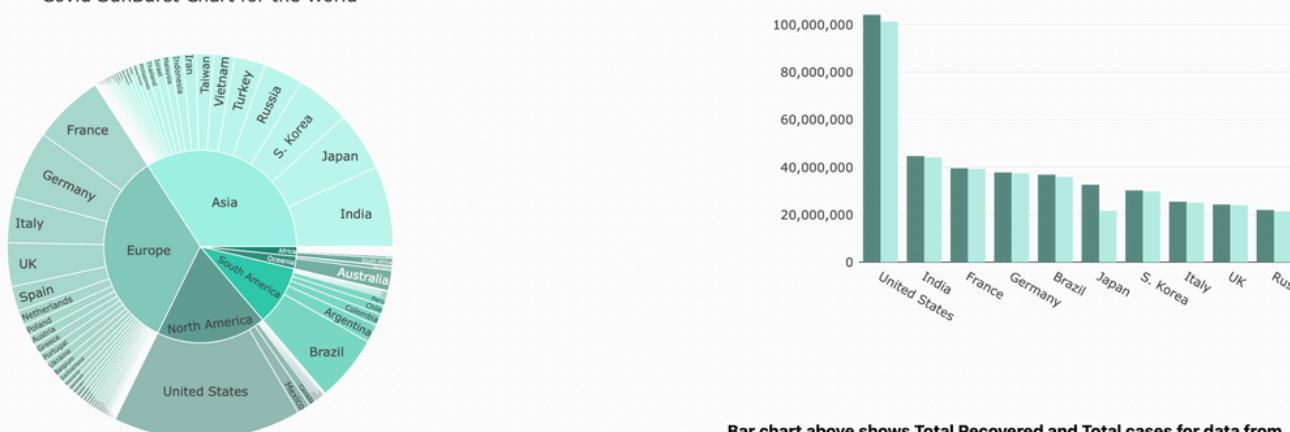
# Covid Cases In The World

Min Cases-> 1

 Select Continent-> All  Explore here->

Covid\_Click

Covid Sunburst Chart for the World



Bar chart above shows Total Recovered and Total cases for data from January 2020. This chart will be updated based on the selection criteria.

**Our goal is to maintain a simple and professional design for the website, similar to how most medical sites present their information. Given the seriousness of the COVID-19 crisis and its global impact, we aim to convey the gravity of the situation through clear and straightforward content.**

# Bias/Limitations of the Dataset

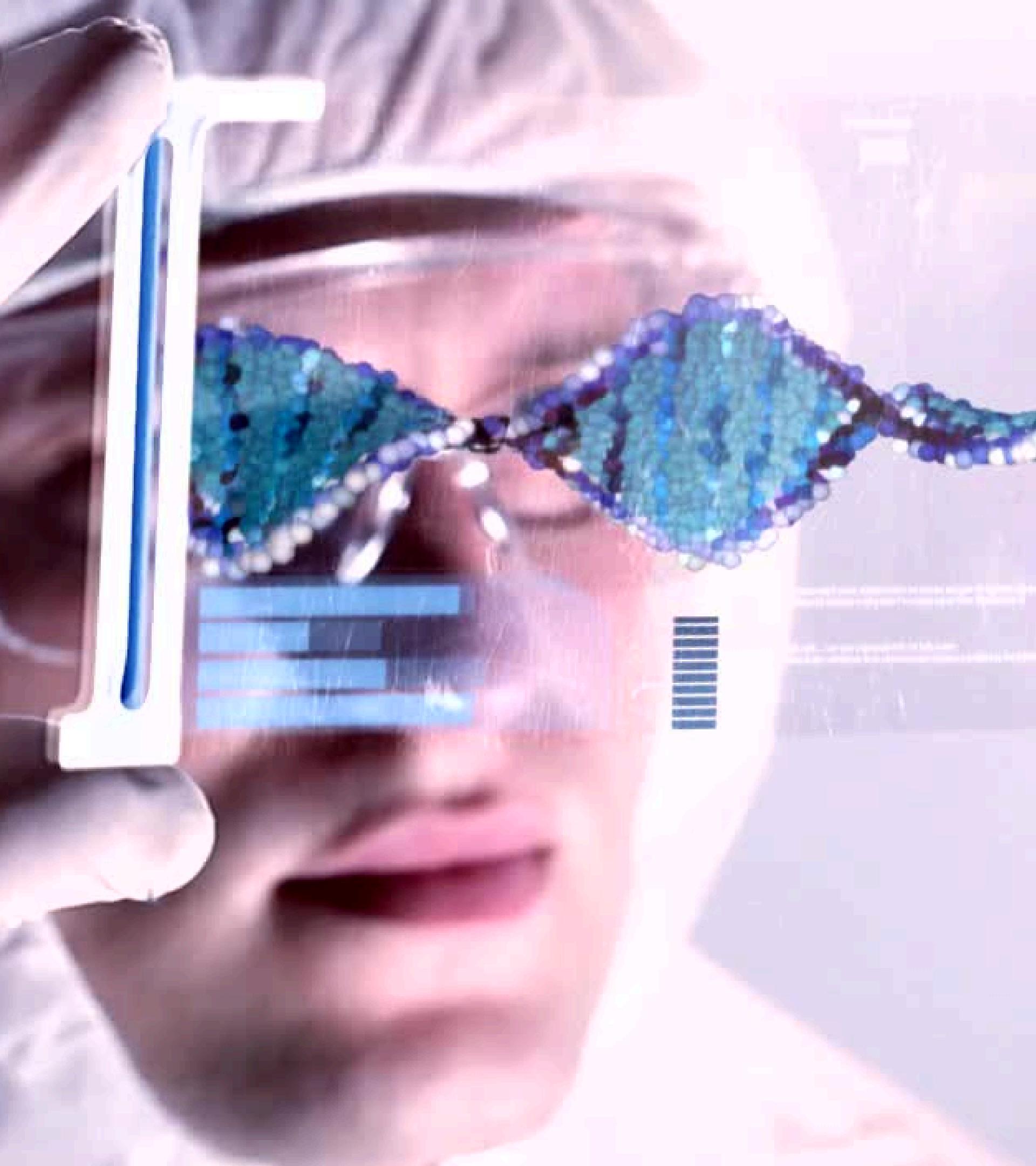
Suriname	82,020	1,398	N/A	N/A	239,603	596,831
New Caledonia	79,845	314	79,526	5	98,964	290,915
French Polynesia	77,957	649	N/A	N/A		284,164
Eswatini	74,133	1,422	72,676	35	1,048,704	1,184,817
Guyana	72,950	1,294	71,357	299	717,867	794,045
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Andorra	47,839	165	47,563	111	249,838	77,463
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Aruba	43,993	236	42,438	1,319	177,885	107,609
Tanzania	42,664	846	N/A	N/A		63,298,550
Mayotte	42,002	188	N/A	N/A	176,919	286,259
Mauritius	41,652	1,043	39,943	666	358,675	1,274,727
Togo	39,354	290	39,061	3	806,803	8,680,837
Guinea	38,240	467	37,757	16	660,107	13,865,691
Isle of Man	38,008	116	N/A	N/A	150,753	85,732
Bahamas	37,491	833	36,366	292	257,839	400,516
Lesotho	34,790	723	25,980	8,087	431,221	2,175,699
Faeroe Islands	34,658	28	N/A	N/A	778,000	49,233

- We encountered a few null values, which we removed from the dataset to minimize errors during our cleaning process. Unfortunately, some countries still lack the necessary technology and resources to accurately report and calculate cases.
- The dataset should include the criteria or process used to determine a positive COVID-19 case, as total cases are the sum of active cases, total deaths, and total recoveries. While deaths can be recorded with some certainty, the criteria used to attribute a death to COVID-19 must be clarified.
- Additionally, the total cases and deaths reported in some countries appear significantly lower compared to other developed nations, which raises concerns about the consistency and accuracy of reporting and testing practices across different regions, as illustrated in the snapshot below.
- Several sources have raised concerns about the efficacy of COVID-19 test kits, citing issues with accuracy that resulted in both false negatives and false positives.

Serial Number	Country	Total Cases	Total Deaths	Total Recovered	Active Cases	Total Test	Population
91	China	503,302	5,272	379,053	118,977	160,000,000	1,412,000,000

# THIS CONCLUDES OUR PRESENTATION

- Analysis shows that COVID-19 case density is higher in regions closer to the equator, but continent or location does not significantly impact recovery rates. Death rates, however, were highest in Africa and lowest in Europe, largely due to healthcare infrastructure and public health measures.
- Africa's higher COVID-19 death rates are attributed to weaker healthcare systems, delayed vaccine access, and more prevalent pre-existing conditions, while Europe's stricter public health measures led to lower mortality.
- The top 10 countries with the most significant outbreaks, including the U.S., India, and Brazil, also report high recovery rates, reflecting the impact of strong healthcare systems, widespread testing, and vaccine availability.



## **Sources**

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<https://www.kff.org/mental-health/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9052715/>

# Questions?

