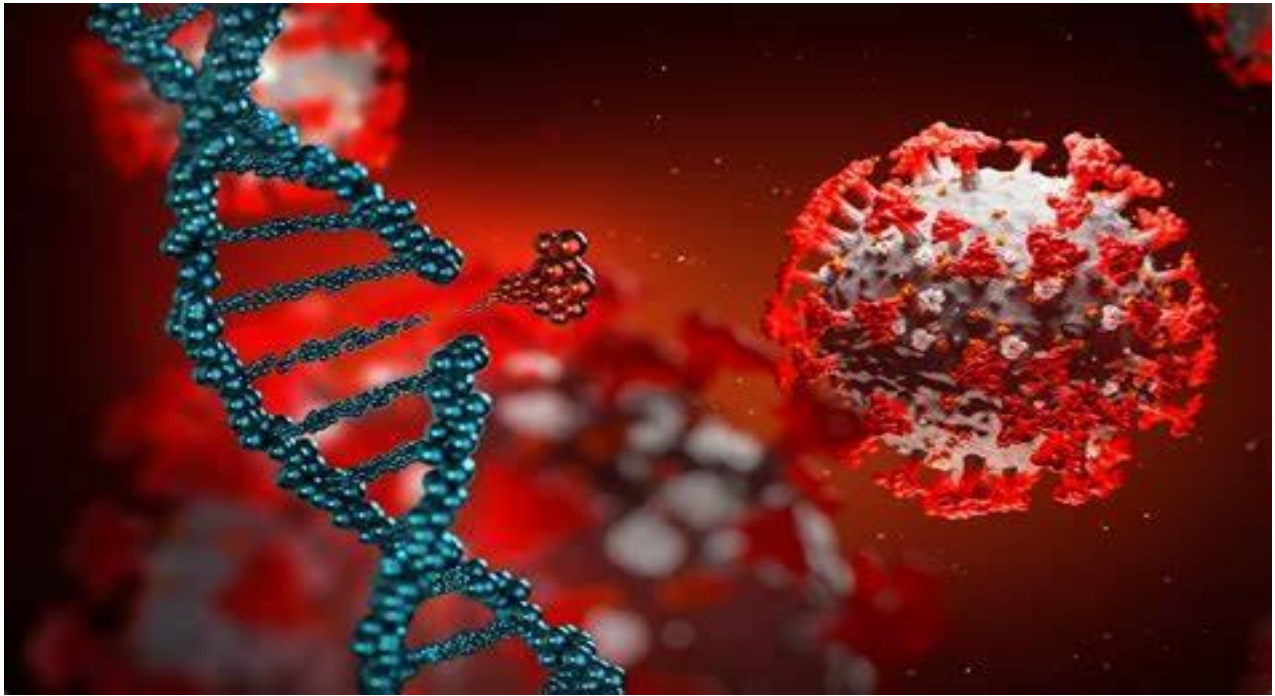


COVID 19 Analysis



Coronavirus disease 2019 (COVID-19) is a contagious disease caused by the virus SARS-CoV-2. The first known case was identified in Wuhan, China, in December 2019. The disease quickly spread worldwide, resulting in the COVID-19 pandemic.

The symptoms of COVID-19 are variable but often include fever, cough, headache, fatigue, breathing difficulties, loss of smell, and loss of taste. Symptoms may begin one to fourteen days after exposure to the virus. At least a third of people who are infected do not develop noticeable symptoms. Of those who develop symptoms noticeable enough to be classified as patients, most (81%) develop mild to moderate symptoms (up to mild pneumonia), while 14% develop severe symptoms (dyspnea, hypoxia, or more than 50% lung involvement on imaging), and 5% develop critical symptoms (respiratory failure, shock, or multiorgan dysfunction). Older people are at a higher risk of developing severe symptoms. Some people continue to experience a range of effects (long COVID) for years after infection, and damage to organs has been observed.

The Aim of the project is to analyze the covid 19 data from 2020- 2023 to determine if covid 19 still has high infection and death rate. To achieve this I will be answering some questions below.

- COVID DEATH GLOBAL NUMBERS

```
WITH globaldeath (location, continent, Total_cases, Total_Number_Of_Death)
AS
(
    SELECT
        location,
        continent,
        MAX(CAST(total_cases AS BIGINT)) AS Total_cases,
        MAX(CAST(total_deaths AS BIGINT)) AS Total_Number_Of_Death
    FROM CovidDeaths
    WHERE continent IS NOT NULL
    GROUP BY continent, location
)
SELECT
    SUM(Total_cases) AS Total_cases,
    SUM(Total_Number_Of_Death) AS TotalDeaths,
    (SUM(Total_Number_Of_Death) * 100.0) / SUM(Total_cases) AS Death_Percentage
FROM globaldeath
```

	Total_cases	TotalDeaths	Death_Percentage
1	770436643	6959772	0.903354229479451

- Showing Total cases and Total number of death of each Country

```
SELECT
    continent,
    location AS Country,
    MAX(CAST(total_cases AS BIGINT)) AS Total_cases,
    MAX(cast (total_deaths as bigint)) as Total_Number_Of_Deaths
FROM CovidDeaths
WHERE
    continent is NOT NULL
GROUP BY
    continent,
    location
ORDER BY Total_cases DESC;
```

	continent	Country	Total_cases	Total_Number_Of_Deaths
1	North America	United States	103436829	1127152
2	Asia	China	99306563	121679
3	Asia	India	44997326	532023
4	Europe	France	38997490	167985
5	Europe	Germany	38437756	174979
6	South America	Brazil	37717062	704659
7	Asia	South Korea	34436542	35812
8	Asia	Japan	33803572	74694
9	Europe	Italy	25955703	191276
10	Europe	United Kingdom	24688073	228924
11	Europe	Russia	22994849	399999

- Showing Continent with highest number of death

```
WITH contdeath(location, continent, Total_Number_Of_Death)
AS
(
    SELECT
        location,
        continent,
        MAX(cast (total_deaths as bigint)) as Total_Number_Of_Death
    FROM CovidDeaths
    WHERE continent is NOT NULL
    GROUP BY continent, location
)
SELECT
    continent,
    SUM(Total_Number_Of_Death) as TotalDeaths
FROM contdeath
GROUP BY continent
order by TotalDeaths desc
```

	continent	TotalDeaths
1	Europe	2076204
2	Asia	1633358
3	North America	1602825
4	South America	1358965
5	Africa	259010
6	Oceania	29410

- Showing what percentage of the population of each Continent died

```
WITH popcontdeath (continent, Total_Population, Total_Number_Of_Death)
AS
(
    SELECT
        continent,
        MAX(CAST(population AS BIGINT)) AS Total_Population,
        MAX(CAST(total_deaths AS BIGINT)) AS Total_Number_Of_Death
    FROM CovidDeaths
    WHERE continent IS NOT NULL
    GROUP BY continent
)
SELECT
    continent,
    SUM(Total_Population) AS Total_Population,
    SUM(Total_Number_Of_Death) AS TotalDeaths,
    (SUM(Total_Number_Of_Death) * 100.0) / SUM(Total_Population) AS Percentage_Of_Population_Dead
FROM popcontdeath
GROUP BY continent
ORDER BY TotalDeaths DESC;
```

	continent	Total_Population	TotalDeaths	Percentage_Of_Population_Dead
1	North America	338289856	1127152	0.333191190929473
2	South America	215313504	704659	0.327271158988708
3	Asia	1425887360	532023	0.037311713037416
4	Europe	144713312	399999	0.276407881536150
5	Africa	218541216	102595	0.046945378028829
6	Oceania	26177410	22781	0.087025416188996

- Total Number People Vaccinated by Continent(Number of people that have taken at least one dose of the vaccination) and Total Number of People Fully Vaccinated by Continent(Number of people that have taken complete dose of the vaccination)

```
WITH continentvaccine
(
continent,
Total_People_Vacinated_per_country,
Total_People_fully_vaccinated_per_country)
AS
(
SELECT
continent,
max(cast (people_vaccinated as bigint)) as Total_People_Vacinated_per_country,
max(cast (people_fully_vaccinated as bigint)) as Total_People_fully_vaccinated_per_country
FROM CovidVaccinations
WHERE continent is NOT NULL
GROUP BY continent
)
SELECT
continent,
SUM(Total_People_Vacinated_per_country) as Total_People_Vacinated,
SUM(Total_People_fully_vaccinated_per_country) as Total_People_fully_vaccinated
FROM continentvaccine
GROUP BY continent
ORDER BY Total_People_Vacinated DESC
```

	continent	Total_People_Vacinated	Total_People_fully_vaccinated
1	Asia	1310292000	1276760000
2	North America	270227181	230637348
3	South America	189643431	176164186
4	Africa	90416598	77884872
5	Europe	88819982	79702396
6	Oceania	22231907	21648824

- Percentage of Population of People Vaccinated by country(Number of people that have taken at least one dose of the vaccination) and Percentage of the Population of People Fully Vaccinated by country(Number of people that have taken complete dose of the vaccination)

```
WITH PercPopVac
(location,
Total_Population,
Total_People_Vacinated_per_country,
Total_People_fully_vaccinated_per_country)
AS
(
SELECT
d.location,
max(population) as Total_Population,
max(cast (people_vaccinated as bigint)) as Total_People_Vacinated_per_country,
max(cast (people_fully_vaccinated as bigint)) as Total_People_fully_vaccinated_per_country
FROM CovidVaccinations v
FULL JOIN CovidDeaths d
ON v.location = d.location
WHERE d.continent is NOT NULL
GROUP BY d.location
)
SELECT
location,
SUM(Total_Population) as Total_Population,
SUM(Total_People_Vacinated_per_country) as Total_People_Vacinated,
SUM(Total_People_fully_vaccinated_per_country) as Total_People_fully_vaccinated,
(SUM(Total_People_Vacinated_per_country)* 100)/SUM(Total_Population) AS Percentage_Of_People_Vacinated,
(SUM(Total_People_fully_vaccinated_per_country)* 100) /SUM(Total_Population) AS Percentage_Of_People_fully_vaccinated
FROM PercPopVac
GROUP BY location
ORDER BY Total_People_Vacinated DESC
```

	location	Total_Population	Total_People_Vacinated	Total_People_fully_vaccinated	Percentage_Of_People_Vacinated	Percentage_Of_People_fully_vaccinated
1	China	1425887360	1310292000	1276760000	91.8930931542867	89.5414347455889
2	India	1417173120	1027417231	951984759	72.4976515924886	67.1749093716934
3	United States	338289856	270227181	230637348	79.8803677400247	68.1774353884262
4	Indonesia	275501344	203845350	174893201	73.9906916751738	63.4817959363567
5	Brazil	215313504	189643431	176164186	88.0778155930248	81.817527803551
6	Pakistan	235824864	165567890	140475871	70.2079870594137	59.5678795769389
7	Bangladesh	171186368	151503170	142177036	88.5018893560497	83.0539473797353
8	Japan	123951696	104705133	103380343	84.4725295247271	83.4037341449527
9	Mexico	127504120	97179493	81849962	76.2167473490268	64.1939742809879
10	Nigeria	218541216	90416598	77884872	41.3727898356711	35.6385277914808
11	Vietnam	98186856	90272853	85961564	91.9398549638864	87.5489525807813
12	Russia	144713312	88819982	79702396	61.3765110980253	55.0760637694478
13	Philippines	115559008	82684774	78443972	71.5519935927453	67.8821784278384

You can view the analysis done on SQL here [Covid19-Analysis/Covid 19 Data Exploration.sql at main · Awanieva/Covid19-Analysis \(github.com\)](https://github.com/Awanieva/Covid19-Analysis/blob/main/Covid19-Analysis/Exploration.sql)

To view and interact with the Tableau Dashboard: [Covid 19 Dashoard | Tableau Public](#)

In conclusion

- Europe recorded the continent with highest number of death followed by Asia.
- United States has the highest Covid-19 cases with 103,436,829 and highest number of deaths 1,127,152 death.
- Countries with lower population has almost more than 30% of population infected.
- Looking at the forecast from September 2033 to September 2024 it shows that will be a continuous decline in the covid 19 infection rate. (Unless of course something else comes up).
- For Vaccinations 65% of the world's population has taken full dose of the covid 19 dashboard. While 71% has taken at least 1 dose of covid 19 vaccine.