### Covid-19

### Introduction

Coronaviruses are a large family of viruses which may cause illness in animals or humans. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered coronavirus causes coronavirus disease COVID-19 - World Health Organization

The numbers of new cases are increasing day by day around the world. State level data comes from [Ministry of Health & Family Welfare](https://www.mohfw.gov.in/)

**Agenda**

We are going to analysis the data with Top first and Bottom end numbers.

* Confirmed cases
* Death
* Cure cases
* Samples
* Vaccination

We are creating a pool of qualified data to assist our clinical laboratories with COVID-19 sample processing and work.

**Purpose of Project**

Finding hypothesis test on whether lockdown has been useful in containing spread.

* **Hypothesis**

A hypothesis consists either of suggested explanation for an observable phenomenon or a mentioned proposal predicting a possible causal correlation among multiple phenomena.

**H0-** The analysis found that there is no significant control after vaccinated and making sufficient lockdown over spreading.

**H1-** The analysis found that there is significant control after vaccinated and making sufficient lockdown over spreading.

**Data Analysis**

1)Top/bottom 10 states with highest number of Confirmed cases

|  |  |  |  |
| --- | --- | --- | --- |
| **Top** |  | **Bottom** |  |
| State | Confirmed | State | Confirmed |
| Maharashtra | 1070657336 | Lakshadweep | 823634 |
| Karnataka | 462620921 | Dadra and Nagar Haveli and Daman and Diu | 1863487 |
| Kerala | 427313974 | Andaman and Nicobar Islands | 1870612 |
| Tamil Nadu | 408786439 | Mizoram | 2594668 |
| Andhra Pradesh | 374631235 | Sikkim | 2938742 |
| Uttar Pradesh | 297247727 | Ladakh | 3870882 |
| Delhi | 274298085 | Nagaland | 4785970 |
| West Bengal | 249317376 | Arunachal Pradesh | 6730183 |
| Chandigarh | 165050703 | Meghalaya | 6743891 |
| Rajasthan | 153785608 | Manipur | 11692893 |

2)Top/bottom 10 states with highest number of Cured cases

|  |  |  |  |
| --- | --- | --- | --- |
| **Top** |  | **Bottom** |  |
| State | Cured | State | Cured |
| Maharashtra | 969585013 | Lakshadweep | 729839 |
| Karnataka | 418977225 | Dadra and Nagar Haveli and Daman and Diu | 1766366 |
| Kerala | 390311164 | Andaman and Nicobar Islands | 1781610 |
| Tamil Nadu | 381444416 | Mizoram | 2109700 |
| Andhra Pradesh | 352926995 | Sikkim | 2530368 |
| Uttar Pradesh | 276311742 | Ladakh | 3578014 |
| Delhi | 260720476 | Nagaland | 4281131 |
| West Bengal | 233983721 | Meghalaya | 5983682 |
| Chandigarh | 152287689 | Arunachal Pradesh | 6170728 |
| Odisha | 142222495 | Manipur | 10395606 |

3)Top/bottom 10 states with highest number of Deaths

|  |  |  |  |
| --- | --- | --- | --- |
| **Top** |  | **Bottom** |  |
| State | Death | State | Death |
| Maharashtra | 22665169 | Dadra and Nagar Haveli and Daman and Diu | 986 |
| Karnataka | 5759340 | Lakshadweep | 3457 |
| Tamil Nadu | 5608369 | Mizoram | 8331 |
| Delhi | 4717732 | Arunachal Pradesh | 24646 |
| Uttar Pradesh | 3938519 | Andaman and Nicobar Islands | 25975 |
| West Bengal | 3683145 | Ladakh | 43941 |
| Andhra Pradesh | 2817970 | Sikkim | 49983 |
| Punjab | 2638818 | Nagaland | 53229 |
| Gujarat | 2128759 | Meghalaya | 91642 |
| Chandigarh | 2082494 | Tripura | 143460 |

4)Top/bottom 10 states with highest of Death percentage

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Top** |  |  | **Bottom** |  |  |
| State | Death | Death % | State | Death | Death % |
| Maharashtra | 22665169 | 32.59% | Dadra and Nagar Haveli and Daman and Diu | 986 | 0.00% |
| Karnataka | 5759340 | 8.28% | Lakshadweep | 3457 | 0.00% |
| Tamil Nadu | 5608369 | 8.06% | Mizoram | 8331 | 0.01% |
| Delhi | 4717732 | 6.78% | Arunachal Pradesh | 24646 | 0.04% |
| Uttar Pradesh | 3938519 | 5.66% | Andaman and Nicobar Islands | 25975 | 0.04% |
| West Bengal | 3683145 | 5.30% | Ladakh | 43941 | 0.06% |
| Andhra Pradesh | 2817970 | 4.05% | Sikkim | 49983 | 0.07% |
| Punjab | 2638818 | 3.79% | Nagaland | 53229 | 0.08% |
| Gujarat | 2128759 | 3.06% | Meghalaya | 91642 | 0.13% |
| Chandigarh | 2082494 | 2.99% | Tripura | 143460 | 0.21% |

5)Top/bottom 10 states with highest number of Total Samples

|  |  |  |  |
| --- | --- | --- | --- |
| **Top** |  | **Bottom** |  |
| State | Total Sample | State | Total Sample |
| Uttar Pradesh | 9155561731 | Dadra and Nagar Haveli and Daman and Diu | 6324267 |
| Bihar | 6121329928 | Lakshadweep | 12622334 |
| Maharashtra | 5703822545 | Sikkim | 23149220 |
| Karnataka | 5453628818 | Ladakh | 27988511 |
| Tamil Nadu | 5436042291 | Nagaland | 42911316 |
| Andhra Pradesh | 4127211823 | Mizoram | 64100385 |
| Gujarat | 3745364851 | Andaman and Nicobar Islands | 72336655 |
| Delhi | 3499131565 | Chandigarh | 79203122 |
| Kerala | 3350897050 | Meghalaya | 96858864 |
| Telangana | 2680729201 | Arunachal Pradesh | 132259016 |

6)Top/bottom 10 states with highest number of Negative cases

|  |  |  |  |
| --- | --- | --- | --- |
| **Top** |  | **Bottom** |  |
| State | Negative Cases | State | Negative Cases |
| Andhra Pradesh | 3325546267 | West Bengal | 568 |
| Jharkhand | 1593489409 | Andaman and Nicobar Islands | 1210 |
| Jammu and Kashmir | 1591716108 | Bihar | 2299 |
| Madhya Pradesh | 1211881437 | Odisha | 64160 |
| Uttarakhand | 715848996 | Nagaland | 109169 |
| Haryana | 712426421 | Goa | 115631 |
| Rajasthan | 535500271 | Sikkim | 438779 |
| Maharashtra | 383680847 | Delhi | 443105 |
| Himachal Pradesh | 306291739 | Punjab | 1356506 |
| Tripura | 183907117 | Assam | 2163110 |

7)Top/bottom 10 states with highest number of Positive cases

|  |  |  |  |
| --- | --- | --- | --- |
| **Top** |  | **Bottom** |  |
| State | Positive Cases | State | Positive Cases |
| Maharashtra | 96901583 | Sikkim | 17644 |
| Kerala | 79723175 | Mizoram | 19785 |
| Jharkhand | 46499325 | Meghalaya | 33904 |
| Tamil Nadu | 12772604 | Arunachal Pradesh | 51245 |
| Tripura | 10061637 | Chandigarh | 59195 |
| Gujarat | 8009517 | Ladakh | 89027 |
| Delhi | 6848173 | Nagaland | 90682 |
| Puducherry | 6287323 | Manipur | 101501 |
| Karnataka | 4701197 | Himachal Pradesh | 119494 |
| Andhra Pradesh | 3859260 | Dadra and Nagar Haveli and Daman and Diu | 169010 |

8)Male and Female Vaccinated ratio for Covid19

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Top** |  |  | **Bottom** |  |  |
| State | Males Vaccinated | Females Vaccinated | State | Males Vaccinated | Females Vaccinated |
| India | 50773300 | 44654685 | Lakshadweep | 8718 | 6661 |
| Maharashtra | 5341276 | 4574454 | Andaman and Nicobar Islands | 30526 | 25852 |
| Rajasthan | 4159339 | 3792975 | Ladakh | 36736 | 30548 |
| Uttar Pradesh | 4977649 | 3759597 | Dadra and Nagar Haveli and Daman and Diu | 57716 | 33454 |
| Gujarat | 4122394 | 3546948 | Sikkim | 65013 | 55594 |
| Karnataka | 3134496 | 3178260 | Puducherry | 67485 | 64362 |
| West Bengal | 3626660 | 2939938 | Nagaland | 77715 | 52813 |
| Madhya Pradesh | 3090222 | 2550216 | Mizoram | 77940 | 74099 |
| Kerala | 2029510 | 2341598 | Chandigarh | 82651 | 61577 |
| Bihar | 2526709 | 2209834 | Arunachal Pradesh | 86687 | 69319 |

9)Covaxin and Covishield Vaccination

Covaxin Administered

|  |  |  |  |
| --- | --- | --- | --- |
| **Top** |  | **Bottom** |  |
| State | Total Covaxin  Administered | State | Total Covaxin  Administered |
| India | 2204448108 | Lakshadweep | 75 |
| Maharashtra | 240073678 | Mizoram | 137 |
| Uttar Pradesh | 207119612 | Dadra and Nagar Haveli and Daman and Diu | 216 |
| Gujarat | 190944782 | Manipur | 743 |
| West Bengal | 161606268 | Ladakh | 910 |
| Andhra Pradesh | 155998977 | Arunachal Pradesh | 1820 |
| Delhi | 139775575 | Meghalaya | 2275 |
| Karnataka | 136080860 | Sikkim | 3239 |
| Madhya Pradesh | 133147945 | Nagaland | 3736 |
| Tamil Nadu | 131944496 | Puducherry | 7808 |

CoviShield Administered

|  |  |  |  |
| --- | --- | --- | --- |
| **Top** |  | **Bottom** |  |
| State | Total CoviShield  Administered | State | Total CoviShield  Administered |
| India | 18160886892 | Lakshadweep | 3259807 |
| Maharashtra | 1850467667 | Andaman and Nicobar Islands | 11296006 |
| Uttar Pradesh | 1623684578 | Ladakh | 14749455 |
| Rajasthan | 1531126826 | Dadra and Nagar Haveli and Daman and Diu | 18244317 |
| Gujarat | 1471653056 | Sikkim | 25856288 |
| West Bengal | 1278797524 | Puducherry | 27080340 |
| Karnataka | 1182850587 | Nagaland | 27598490 |
| Madhya Pradesh | 1013956777 | Chandigarh | 30969272 |
| Bihar | 902049317 | Mizoram | 31380797 |
| Kerala | 867496055 | Arunachal Pradesh | 33778691 |

10)Doses administered vs People Vaccinated

Doses Administered

|  |  |  |  |
| --- | --- | --- | --- |
| **Top** |  | **Bottom** |  |
| **State** | **Total Doses Administered** | **State** | **Total Doses Administered** |
| India | 20410132525 | Lakshadweep | 3261957 |
| Maharashtra | 2093453169 | Andaman and Nicobar Islands | 11328986 |
| Uttar Pradesh | 1836649011 | Ladakh | 14771706 |
| Gujarat | 1665839883 | Dadra and Nagar Haveli and Daman and Diu | 18260124 |
| Rajasthan | 1663653177 | Sikkim | 25897087 |
| West Bengal | 1443060973 | Nagaland | 27693394 |
| Karnataka | 1322772314 | Puducherry | 27114043 |
| Madhya Pradesh | 1149551654 | Chandigarh | 31023221 |
| Bihar | 981851927 | Mizoram | 31490503 |
| Kerala | 934050209 | Arunachal Pradesh | 33915468 |

Individuals Vaccinated

|  |  |  |  |
| --- | --- | --- | --- |
| **Top** |  | **Bottom** |  |
| State | Total Individuals  Vaccinated | State | Total Individuals  Vaccinated |
| India | 16754776975 | Lakshadweep | 2686210 |
| Maharashtra | 1717369357 | Andaman and Nicobar Islands | 9942734 |
| Uttar Pradesh | 1526352061 | Ladakh | 11528285 |
| Rajasthan | 1390911300 | Dadra and Nagar Haveli and Daman and Diu | 16009176 |
| Gujarat | 1320172816 | Sikkim | 20925439 |
| West Bengal | 1126839571 | Nagaland | 22891022 |
| Karnataka | 1096856361 | Puducherry | 23035660 |
| Madhya Pradesh | 989725813 | Chandigarh | 25032505 |
| Bihar | 830004925 | Mizoram | 26838882 |
| Kerala | 751401019 | Arunachal Pradesh | 27207820 |

**Recommendation**

Covid confirmed cases are huge comparing the samples, Hence people requested to take vaccination (first and second dose) and sufficient samples if they feel any symptoms and advised to stay in lockdown to avoid crowd.