# Vaccination Report - 7 June 2022

## 1. Vaccine Implementation

• WHO's Emergency Use Listing(EUL) Vaccines (Last Updated 26 May 2022)

|    | Manufacturer                        | Name of Vaccine  | NRA of Record  | Vaccine type                         |
|----|-------------------------------------|--|--|--------------------------------------|
| 1  | Pfizer-BioNTech<br>(US)             | BNT162b2/COMIRNATY<br>Tozinameran (INN)                    | EMA,USFDA  | mRNA                                 |
| 2  | AstraZeneca<br>(UK)                 | AZD1222 Vaxzevria  | EMA,<br>MFDS KOREA,<br>Japan MHLW/PMDA,<br>Australia TGA,<br>COFEPRIS(Mexico),<br>ANMAT(Argentina) | Non ReplicatingViral<br>vector       |
| 3  | Serum Institute of India<br>(India) | Covishield<br>(ChAdOx1_nCoV-19)                            | DCGI   | Non Replicating Viral<br>Vector      |
| 4  | Johnson &Johnson<br>(US)            | Ad26.CoV2.S  | EMA, DCGI  | Non ReplicatingViral vector          |
| 5  | Moderna<br>(US)                     | mRNA-1273  | EMA, USFDA, MFDS   | mRNA                                 |
| 6  | Sinopharm Beijing<br>(China)        | SARS-CoV-2<br>Vaccine(Vero Cells)                          | NMPA   | Inactivated virus<br>(Vero Cells)    |
| 7  | Sinovac<br>(China)                  | COVID-19 Vaccine<br>(Vero Cells)                           | NMPA   | Inactivated virus<br>(Vero Cell)     |
| 8  | Bharat Biotech<br>(India)           | SARS-CoV-2 Vaccine,<br>Inactivated (Vero Cell)/<br>COVAXIN | DCGI   | Whole-Virion Inactivated (Vero Cell) |
| 9  | Serum Institute of India (India)    | NVX-CoV2373/Covovax  | DCGI   | Protein Subunit                      |
| 10 | NOVAVAX<br>(US)                     | NVX-CoV2373/Covovax  | EMA  | Protein Subunit                      |
| 11 | CanSinoBIO<br>(China)               | Ad5-nCoV   | NMPA   | Non ReplicatingViral vector          |

# • 38 Vaccines Approved by at Least One Country

| Vaccine<br>Type | mRNA | Non Replicating<br>Viral vector | Inactivated virus | Protein<br>Subunit | DNA | Virus-like<br>Particles<br>(VLP) | Total |
|-----------------|------|---------------------------------|-------------------|--------------------|-----|----------------------------------|-------|
| In Use          | 3    | 7                               | 11                | 15                 | 1   | 1                                | 38    |

Source: <a href="https://covid19.trackvaccines.org/vaccines/">https://covid19.trackvaccines.org/vaccines/</a> (Last Updated 6 June 2022)

• Vaccination against COVID-19 has now started in 218 locations

#### (Source: Our World in Data. Last Updated 6 June 2022)

| Location   | Doses Given    | Complete Initial Protocol (% of population) | Partly Vaccinated (% of population) |
|------------|----------------|---|-------------------------------------|
| Worldwide  | 11.83 billion  | 4.73 billion                                | 5.18 billion                        |
| vvoriawiae | 11.03 01111011 | (60.03 %)                                   | (65.72 %)                           |

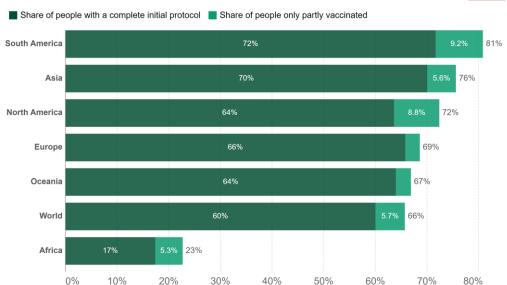
#### About this data:

- a: This data changes rapidly and might not reflect doses still being reported. It may differ from other sites & sources.
- b: Where data for full vaccinations is available, it shows how many people have received at least 1 dose and how many people have been fully vaccinated (which may require more than 1 dose). Where data for full vaccinations isn't available, the data shows the total number of vaccine doses given to people. Since some vaccines require more than 1 dose, the number of fully vaccinated people is likely lower.
  - c: It only has full vaccination totals in some locations.

ignored to maximize comparability between countries

# Share of people vaccinated against COVID-19, Jun 6, 2022





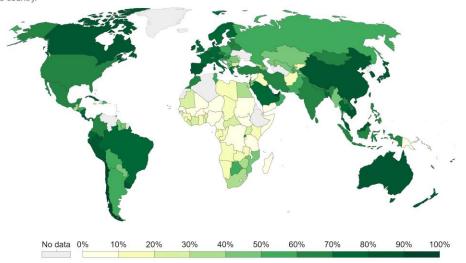
Source: Official data collated by Our World in Data Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are

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Share of people who completed the initial COVID-19 vaccination protocol, Jun 6, 2022

Our World in Data

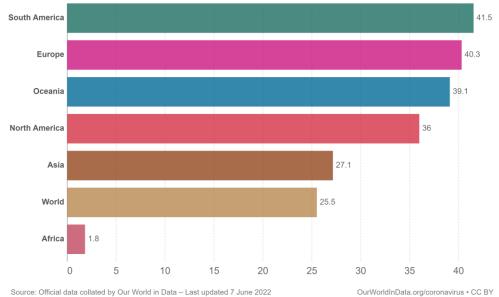
Total number of people who received all doses prescribed by the initial vaccination protocol, divided by the total population of the country.



### COVID-19 vaccine boosters administered per 100 people, Jun 6, 2022

Total number of vaccine booster doses administered, divided by the total population of the country. Booster doses are doses administered beyond those prescribed by the original vaccination protocol.

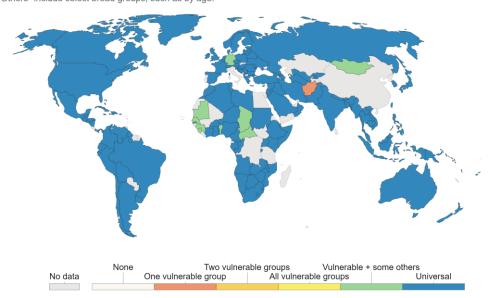




OurWorldInData.org/coronavirus • CC BY

### COVID-19 vaccination policy, Jun 6, 2022

Policies for vaccine delivery. Vulnerable groups include key workers, the clinically vulnerable, and the elderly. "Others" include select broad groups, such as by age.



Source: Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford - Last updated 7 June 2022 OurWorldInData.org/coronavirus • CC BY

### 2. Vaccine effectiveness against symptomatic infection for Alpha, Delta and **Omicron variants**

| Vaccine Status                          | Vaccine Effectiveness  |   |         |  |
|---|--|---|---------|--|
|   | Alpha  | Delta   | Omicron |  |
| 1 Dose (BNT162b2 or<br>ChAdOx1 nCoV-19) | <b>48.7%</b> (95%CI: 45.5-51.7%) <sup>1</sup> <b>66%(</b> BNT162b2) <sup>4</sup> <b>64%</b> (ChAdOx1) <sup>4</sup> | 30.7% (95%CI: 25.2-35.7%) <sup>1</sup> 56%(BNT162b2) <sup>4</sup> 67%(ChAdOx1) <sup>4</sup> 82% (95% CI:73- 91%) <sup>7</sup> |         |  |
| 1 Dose (mRNA-1273)                      | 83% <sup>4</sup>   | <b>72</b> % <sup>4</sup>  |         |  |
| 1 Dose(Sinopharm or Sinovac)            |  | <b>13.8%,(</b> 95%CI: -60.2-54.8%) <sup>3</sup>   |         |  |

| 2 Doses (BNT162b2)                                 | 93.7% (95%CI: 91.6-95.3) <sup>1</sup><br>76% (95%CI: 69-81%) <sup>2</sup><br>89% <sup>4</sup> | <b>88%</b> (95%Cl: 85.3-90.1%) <sup>1</sup> <b>42%</b> (95% Cl: 13-62%) <sup>2</sup> <b>87%</b> <sup>4</sup> <b>93%</b> (95% Cl: 88-97%/12-18Y) <sup>5</sup> <b>93%</b> (95% Cl: 88-97%) <sup>7</sup> | <b>50%</b> (95% CI: 35%–62%) <sup>8</sup>  |
|--|---|---|--|
| 2 Doses (ChAdOx1<br>nCoV-19)                       | <b>74.5%</b> (95%CI: 68.4-79.4%) <sup>1</sup>   | <b>67.0%</b> (95%CI: 61.3-71.8%) <sup>1</sup>   |  |
| 2 Doses (mRNA-1273)                                | <b>86%,</b> (95%CI: 81-90.6%) <sup>2</sup>  | <b>76%</b> , (95% CI: 58-87%) <sup>2</sup>  | <b>30.4%</b> (95% CI: 5.0%-49.0%) <sup>9</sup>   |
| 2 Doses(Sinopharm or Sinovac)                      |   | <b>59.0%</b> , (95%CI: 16.0-81.6%) <sup>3</sup>   |  |
| 3 Doses (BNT162b2)                                 |   | <b>95.33%</b> (SD 6.44) <sup>6</sup><br><b>86.1%</b> (95% CI, 67.3 to 94.1) <sup>11</sup>   | 67.2% (95% CI: 66.5- 67.8%)<br>at 2 to 4 weeks <sup>10</sup><br>49.4% (95% CI, 47.1 to 51.6) <sup>11</sup> |
| 3 Doses(mRNA-1273)                                 |   |   | <b>62.5%</b> (95% CI: 56.2-67.9%) <sup>9</sup> <b>47.3%</b> (95% CI, 40.7 to 53.3) <sup>11</sup>           |
| 2 Doses (BNT162b2) +<br>1Dose(mRNA-1273)           |   |   | <b>73.9%</b> (95% CI: 73.1- 74.6%) at 2 to 4 weeks <sup>10</sup>   |
| 2 Doses(ChAdOx1<br>nCoV-<br>19)+1Dose(BNT162b2)    |   |   | <b>62.4%</b> (95% CI, 61.8- 63.0) at 2 to 4 weeks <sup>10</sup>  |
| 2 Doses (ChAdOx1<br>nCoV-19)+ 1Dose<br>(mRNA-1273) |   |   | <b>70.1%</b> (95% CI, 69.5 to 70.7) at 2 to 4 weeks <sup>10</sup>  |

#### References:

- 1) Effectiveness of Covid-19 Vaccines against the B.1.617.2 (Delta) Variant
- 2) Comparison of two highly-effective mRNA vaccines for COVID-19 during periods of Alpha and Delta variant prevalence
- 3) <u>Efficacy of inactivated SARS-CoV-2 vaccines against the Delta variant infection in Guangzhou: A test-negative case-control real-world study</u>
- 4) Effectiveness of COVID-19 vaccines against variants of concern in Ontario, Canada
- 5) Effectiveness of BNT162b2 Vaccine against Delta Variant in Adolescents
- 6) A RCT of a third dose CoronaVac or BNT162b2 vaccine in adults with two doses of CoronaVac
- 7) Effectiveness of BNT162b2 Vaccine against Delta Variant in Adolescents
- 8) Effectiveness of BNT162b2 Vaccine against Omicron Variant in South Africa
- 9) Effectiveness of mRNA-1273 against SARS-CoV-2 omicron and delta variants
- 10) Covid-19 Vaccine Effectiveness against the Omicron (B.1.1.529) Variant
- 11) Effect of mRNA Vaccine Boosters against SARS-CoV-2 Omicron Infection in Qatar

#### 3. Latest Relevant Articles

- Efficacy and Safety of the RBD-Dimer—Based Covid-19 Vaccine ZF2001 in Adults(Posted June 2, 2022)
- Efficacy and Safety of a Recombinant Plant-Based Adjuvanted Covid-19 Vaccine(Posted June 2, 2022)
- Effectiveness of BNT162b2 booster doses in England: an observational study in OpenSAFELY-TPP(Posted June 06, 2022)

 The impact of surgical mask-wearing, contact tracing program, and vaccination on <u>COVID-19 transmission in Taiwan 2020-2022: a modelling study</u>(Posted June 06, 2022)

### 4. Other Information

- Novavax COVID vaccine backed for authorization by U.S. FDA panel(Posted June 7, 2022)
- NEJM: Does the World Still Need New Covid-19 Vaccines?(Posted June 2, 2022)