## Vaccination Report – 19 April 2022

### 1. Vaccine Implementation

• WHO's Emergency Use Listing(EUL) Vaccines (Last Updated 2 April 2022)

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

## • 38 Vaccines Approved by at Least One Country

Vaccine Type	mRNA	Non Replicating Viral vector	Inactivated virus	Protein Subunit	DNA	Virus-like Particles (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 18 April 2022)

 Vaccination against COVID-19 has now started in 218 locations (Source: Our World in Data. Last Updated 18 April 2022)

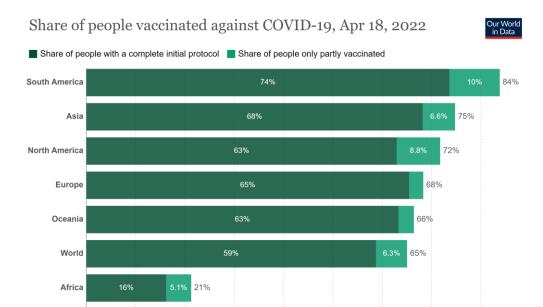
Location	Doses Given	Complete Initial Protocol (% of population)	Partly Vaccinated (% of population)
Worldwide	11.48 billion	4.62 billion (58.71%)	5.12 billion (65.01%)

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.

10%

20%



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 ignored to maximize comparability between countries.

40%

50%

60%

70%

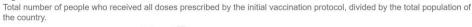
CC BY

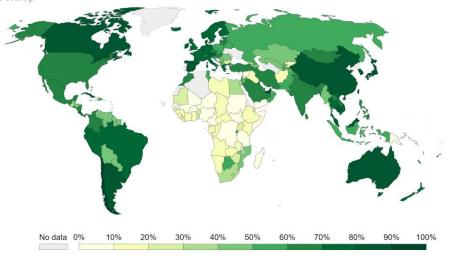
80%

## Share of people who completed the initial COVID-19 vaccination protocol, Apr 18, 2022 $\,$

30%

Our World in Data

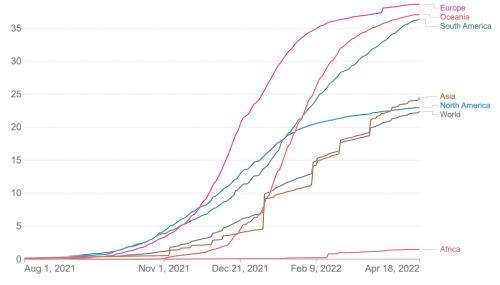




#### COVID-19 vaccine boosters administered per 100 people

Our World in Data

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.



Source: Official data collated by Our World in Data - Last updated 19 April 2022

OurWorldInData.org/coronavirus • CC BY

#### COVID-19 vaccination policy, Apr 19, 2022

This metric records policies for vaccine delivery for different groups.



- Availability for ONE of following: key workers/ clinically vulnerable groups / elderly groups
- Availability for TWO of following: key workers/ clinically vulnerable groups / elderly groups
- Availability for ALL of following: key workers/ clinically vulnerable groups / elderly groups
- Availability for all three plus partial additional availability (select broad groups/ages)
   Universal availability

  No data

  None
  One group
  Two groups
  All vulnerable + some others
  Universal

Source: Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford – Last updated 19 April 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 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> 76% (95%CI: 69-81%) <sup>2</sup> 89% <sup>4</sup>	88% (95%CI: 85.3-90.1%) <sup>1</sup> 42% (95% CI: 13-62%) <sup>2</sup> 87% <sup>4</sup> 93%(95% CI: 88-97%/12-18Y) <sup>5</sup> 93% (95% CI: 88-97%) <sup>7</sup>	<b>50%</b> (95% CI: 35%–62%) <sup>8</sup>
2 Doses (ChAdOx1 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%Cl: 16.0-81.6%) <sup>3</sup>	
3 Doses (BNT162b2)		<b>95.33%</b> (SD 6.44) <sup>6</sup> <b>86.1%</b> (95% CI, 67.3 to 94.1) <sup>11</sup>	67.2% (95% CI: 66.5- 67.8%) at 2 to 4 weeks <sup>10</sup> 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) + 1Dose(mRNA-1273)			<b>73.9%</b> (95% CI: 73.1- 74.6%) at 2 to 4 weeks <sup>10</sup>
2 Doses(ChAdOx1 nCoV- 19)+1Dose(BNT162b2)			<b>62.4%</b> (95% CI, 61.8- 63.0) at 2 to 4 weeks <sup>10</sup>
2 Doses (ChAdOx1 nCoV-19)+ 1Dose (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

- Fourth Dose of BNT162b2 mRNA Covid-19 Vaccine in a Nationwide Setting
- Estimating the risk of hospitalisation and death in England's remaining unvaccinated population
- Effectiveness and waning of protection with different SARS-CoV-2 primary and booster vaccines during the Delta pandemic wave in 2021 in Hungary (HUN-VE 3 study)

- <u>Effectiveness of Four Vaccines in Preventing SARS-CoV-2 Infection in Kazakhstan</u>
- Comparative Effectiveness of mRNA and Inactivated Whole Virus Vaccines against COVID-19 Infection and Severe Disease in Singapore
- A boost with SARS-CoV-2 BNT162b2 mRNA vaccine elicits strong humoral responses independently of the interval between the first two doses

#### 4. Other Information

 <u>FDA Authorizes First COVID-19 Diagnostic Test Using Breath Samples</u> on April 14, 2022.