Vaccination Report – 17 May 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: <u>https://covid19.trackvaccines.org/vaccines/</u> (Last Updated 16 May 2022)

 Vaccination against COVID-19 has now started in 218 locations (Source: <u>Our World in Data</u>. Last Updated 16 May 2022)

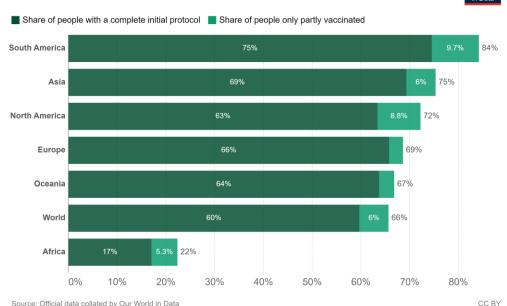
Location	Doses Given	Complete Initial Protocol (% of population)	Partly Vaccinated (% of population)
Worldwide	11.73 billion	4.70 billion (59.68 %)	5.17 billion (65.65 %)

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.

Share of people vaccinated against COVID-19, May 16, 2022

c: It only has full vaccination totals in some locations.

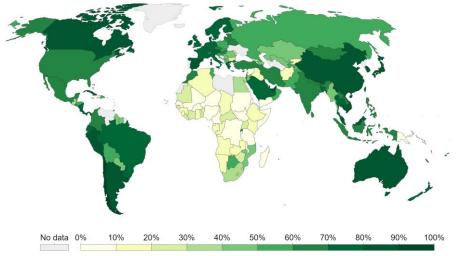


Source: Official data collated by Our World in Data CC E Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ionored to maximize comparability between countries.

Share of people who completed the initial COVID-19 vaccination protocol, May 16, 2022

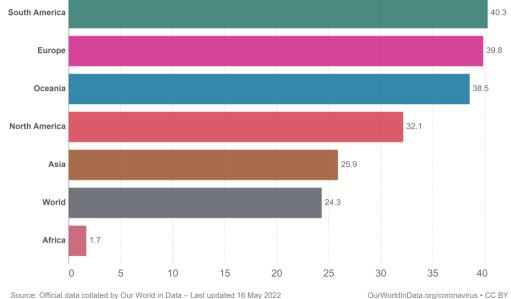
Our World in Data

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



Source: Official data collated by Our World in Data – Last updated 17 May 2022 OurWorldInData.org/coronavirus • CC BY 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.

COVID-19 vaccine boosters administered per 100 people, May 15, 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.



ource. Onicial data conated by Our World in Data – Last updated To May 2022

COVID-19 vaccination policy, May 9, 2022

"Others" include select broad groups, such as by age.

Policies for vaccine delivery. Vulnerable groups include key workers, the clinically vulnerable, and the elderly.

Source: Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford – Last updated 10 May 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)	48.7% (95%Cl: 45.5-51.7%) ¹ 66%(BNT162b2) ⁴ 64% (ChAdOx1) ⁴	30.7% (95%CI: 25.2-35.7%) ¹ 56% (BNT162b2) ⁴ 67% (ChAdOx1) ⁴ 82% (95% CI:73- 91%) ⁷			
1 Dose (mRNA-1273)	83% ⁴	72% ⁴			
1 Dose(Sinopharm or Sinovac)		13.8%,(95%Cl: -60.2-54.8%) ³			
2 Doses (BNT162b2)	93.7% (95%CI: 91.6-95.3) ¹ 76% (95%CI: 69-81%) ² 89% ⁴	88% (95%CI: 85.3-90.1%) ¹ 42% (95% CI: 13-62%) ² 87% ⁴ 93% (95% CI: 88-97%/12-18Y) ⁵ 93% (95% CI: 88-97%) ⁷	50% (95% Cl: 35%–62%) ⁸		
2 Doses (ChAdOx1 nCoV-19)	74.5% (95%CI: 68.4-79.4%) ¹	67.0% (95%Cl: 61.3-71.8%) ¹			
2 Doses (mRNA-1273)	86%, (95%Cl: 81-90.6%) ²	76%, (95% CI: 58-87%) ²	30.4% (95% CI: 5.0%-49.0%) ⁹		
2 Doses(Sinopharm or Sinovac)		59.0%, (95%Cl: 16.0-81.6%) ³			
3 Doses (BNT162b2)		95.33% (SD 6.44) ⁶ 86.1% (95% Cl, 67.3 to 94.1) ¹¹	67.2% (95% CI: 66.5- 67.8%) at 2 to 4 weeks ¹⁰ 49.4% (95% CI, 47.1 to 51.6) ¹¹		
3 Doses(mRNA-1273)			62.5% (95% Cl: 56.2-67.9%) ⁹ 47.3% (95% Cl, 40.7 to 53.3) ¹¹		
2 Doses (BNT162b2) + 1Dose(mRNA-1273)			73.9% (95% CI: 73.1- 74.6%) at 2 to 4 weeks ¹⁰		
2 Doses(ChAdOx1 nCoV- 19)+1Dose(BNT162b2)			62.4% (95% Cl, 61.8- 63.0) at 2 to 4 weeks ¹⁰		
2 Doses (ChAdOx1 nCoV-19)+ 1Dose (mRNA-1273)			70.1% (95% CI, 69.5 to 70.7) at 2 to 4 weeks ¹⁰		

References:

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

- <u>BNT162b2-induced memory T cells respond to the Omicron variant with preserved</u>
 <u>polyfunctionality</u>
- Evaluation of mRNA-1273 Covid-19 Vaccine in Children 6 to 11 Years of Age

- <u>Three-doses of BNT162b2 COVID-19 mRNA vaccine establishes long-lasting</u> <u>CD8+ T cell immunity in CLL and MDS patients</u>
- <u>Humoral immunity to SARS-CoV-2 elicited by combination COVID-19 vaccination</u> regimens
- <u>COVID-19 Vaccine effectiveness against symptomatic infection and hospitalization</u> in Belgium, July 2021-APRIL 2022
- <u>Three-dose vaccination-induced immune responses protect against SARS-CoV-2</u> <u>Omicron-BA.2</u>

4. Other Information

- EASA ECDC COVID-19 Aviation Health Safety Protocol 11 May 2022
- UKHSA: Almost 80% of eligible over-75s receive spring booster(13 May 2022)