

Vaccination Report – 25 October 2022

1. Vaccine Implementation

- WHO's Emergency Use Listing(EUL) Vaccines (Last Updated 21 September 2022)

	Manufacturer	Name of Vaccine	NRA of Record	Vaccine type
1	Pfizer-BioNTech (US)	BNT162b2/COMIRNATY Tozinameran (INN)	EMA,USFDA	Nucleoside modified mRNA
2	AstraZeneca (UK)	AZD1222 Vaxzevria	EMA, MFDS KOREA, Japan MHLW/PMDA, Australia TGA, COFEPRIS(Mexico), ANMAT(Argentina)	Recombinant ChAdOx1 adenoviral vector encoding the Spike protein antigen of the SARS-CoV-2
3	Serum Institute of India (India)	Covishield (ChAdOx1_nCoV-19)	DCGI	Recombinant ChAdOx1 adenoviral vector encoding the Spike protein antigen of the SARS-CoV-2
4	Johnson &Johnson (US)	Ad26.CoV2.S	EMA, DCGI	Recombinant, replication incompetent adenovirus type 26 (Ad26) vectored vaccine encoding the (SARS-CoV-2) Spike (S) protein
5	Moderna (US)	mRNA-1273	EMA, USFDA, MFDS	mRNA-based vaccine encapsulated in lipid nanoparticle (LNP)
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	Recombinant nanoparticle prefusion spike protein formulated with Matrix-M™ adjuvant
10	NOVAVAX (US)	NVX-CoV2373/Nuvaxovid	EMA	Recombinant nanoparticle prefusion spike protein formulated with Matrix-M™ adjuvant
11	CanSinoBIO (China)	Ad5-nCoV	NMPA	Recombinant Novel Coronavirus Vaccine (Adenovirus Type 5 Vector)

- **49** 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	9	9	11	18	1	1	49

Source: <https://covid19.trackvaccines.org/vaccines/approved/#vaccine-list> (Last Updated 19 Oct 2022)

- Vaccination against COVID-19 has now started in **218** locations
(Source: [Our World in Data](#). Last Updated 24 Oct 2022)

Location	Doses Given	Complete Initial Protocol (% of population)	Partly Vaccinated (% of population)
Worldwide	12.86 billion	4.98 billion (62.98 %)	5.41 billion (68.36 %)

About this data:

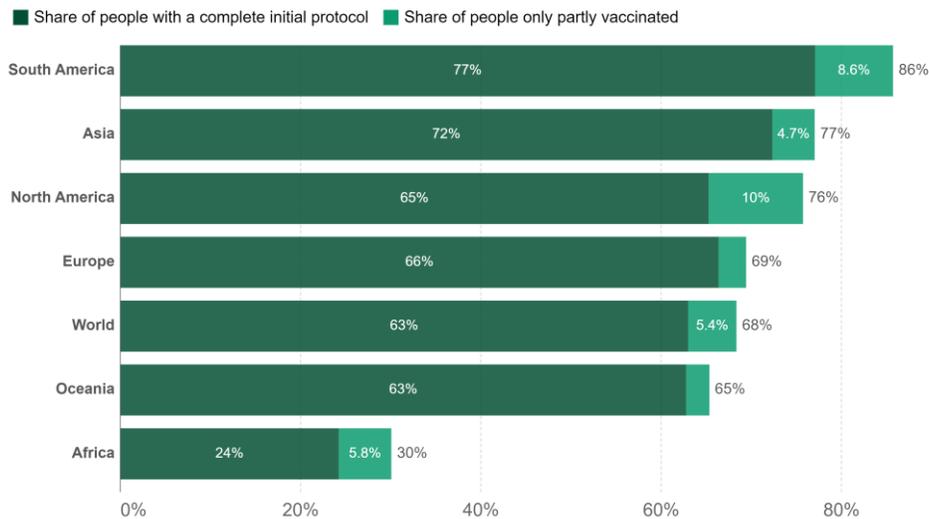
a: This data changes rapidly and might not reflect doses still being reported. It may differ from other sites & sources.

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.

Share of people vaccinated against COVID-19, Oct 23, 2022

Our World
in Data



Source: Official data collated by Our World in Data

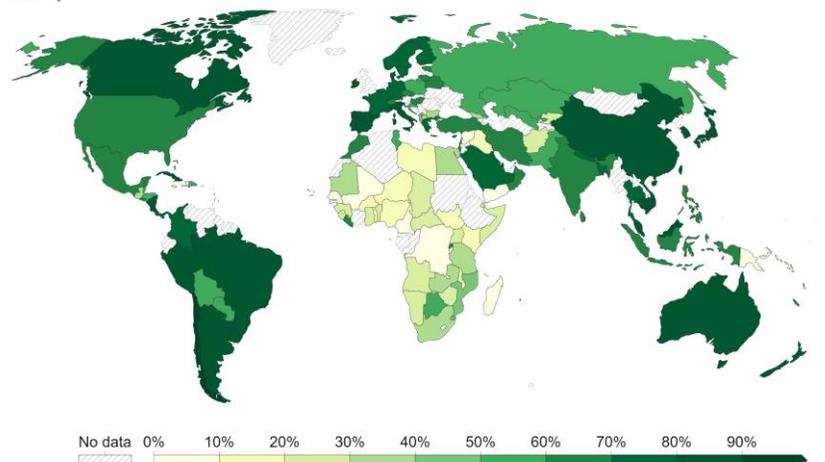
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Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.

Share of people who completed the initial COVID-19 vaccination protocol, Oct 23, 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.



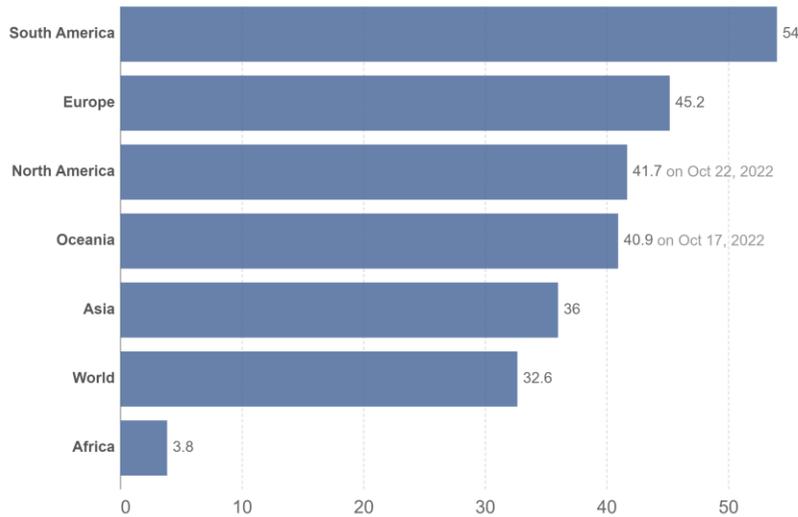
Source: Official data collated by Our World in Data – Last updated 24 October 2022

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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, Oct 23, 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.

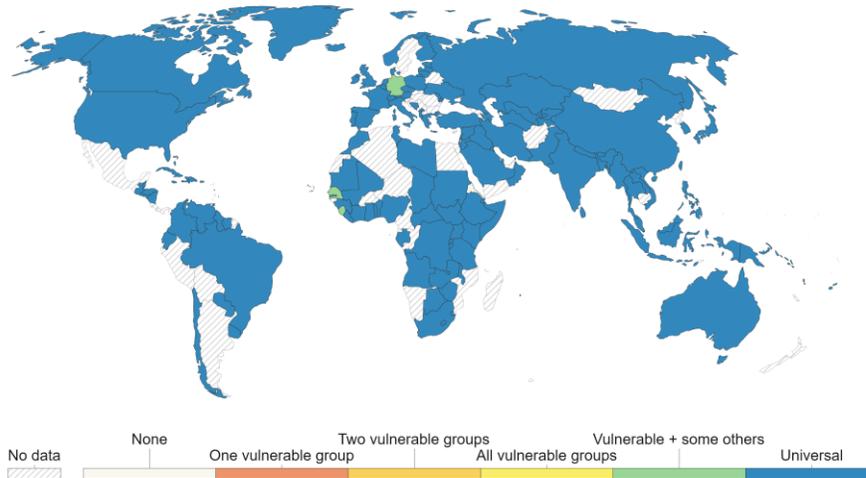


Source: Official data collated by Our World in Data – Last updated 24 October 2022

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COVID-19 vaccination policy, Oct 23, 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 24 October 2022

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2. Effectiveness of Vaccine and/or Previous Infection 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%CI: 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%CI: -60.2-54.8%) ³	
2 Doses (BNT162b2)	93.7% (95%CI: 91.6-95.3) ¹ 76% (95%CI: 69-81%) ²	88% (95%CI: 85.3-90.1%) ¹ 42% (95% CI: 13-62%) ²	50% (95% CI: 35%–62%) ⁸

	89% ⁴	87% ⁴ 93%(95% CI: 88-97%/12-18Y) ⁵ 93% (95% CI: 88-97%) ⁷	
2 Doses (ChAdOx1 nCoV-19)	74.5% (95%CI: 68.4-79.4%) ¹	67.0% (95%CI: 61.3-71.8%) ¹	
2 Doses (mRNA-1273)	86%, (95%CI: 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%CI: 16.0-81.6%) ³	
3 Doses (BNT162b2)		95.33% (SD 6.44) ⁶ 86.1% (95% CI, 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 52.2% (95% CI, 48.1 to 55.9) ¹²
3 Doses(mRNA-1273)			62.5% (95% CI: 56.2-67.9%) ⁹ 47.3% (95% CI, 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% CI, 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
2 Doses (BNT162b2) +Previous infection			55.1% (95% CI, 50.9 to 58.9) ¹²
3 Doses (BNT162b2) +Previous infection			77.3% (95% CI, 72.4 to 81.4) ¹²
Previous Omicron Infection			76.1% on BA.4 or BA.5 (95% CI: 54.9 to 87.3%) ¹³

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) [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) [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](#)
- 12) [Effects of Previous Infection and Vaccination on Symptomatic Omicron Infections](#)
- 13) [Protection of SARS-CoV-2 natural infection against reinfection with the BA.4 or BA.5 Omicron subvariants](#)

3. Latest Relevant Articles

- [Risk of reinfection, vaccine protection, and severity of infection with the BA.5 omicron subvariant: a nation-wide population-based study in Denmark\(Published October 18,2022\)](#)

- [Evaluation of mRNA-1273 Vaccine in Children 6 Months to 5 Years of Age](#) (Published October 19,2022)
- [Neutralization Escape by SARS-CoV-2 Omicron Subvariant BA.4.6](#) (Published October 19,2022)
- [Antibody responses to Omicron BA.4/BA.5 bivalent mRNA vaccine booster shot](#)(Published October 24,2022)
- [Safety and effectiveness of COVID-19 mRNA vaccination and risk factors for hospitalisation caused by the omicron variant in 0.8 million adolescents: A nationwide cohort study in Sweden](#)(Published October 24,2022)

4. Other Information

- CDC: [Effectiveness of Monovalent mRNA Vaccines Against COVID-19–Associated Hospitalization Among Immunocompetent Adults During BA.1/BA.2 and BA.4/BA.5 Predominant Periods of SARS-CoV-2 Omicron Variant in the United States — IVY Network, 18 States, December 26, 2021–August 31, 2022](#)(Published October 21, 2022)
- [ECDC: Laboratory support for SARS-CoV-2 virus neutralisation in the EU/EEA - a pilot study](#) (Published October 24,2022)