Vaccination Report – 23 August 2022

1. Vaccine Implementation

- WHO's Emergency Use Listing(EUL) Vaccines (Last Updated 7 July 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	NOVAVAX (US)	NVX-CoV2373/Covovax	EMA	Protein Subunit
11	CanSinoBIO (China)	Ad5-nCoV	NMPA	Non ReplicatingViral vector

- **41** 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	5	7	11	16	1	1	**41**

Source: https://covid19.trackvaccines.org/vaccines/ （Last Updated 22 August 2022）

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

(Source: Our World in Data. Last Updated 22 August 2022)

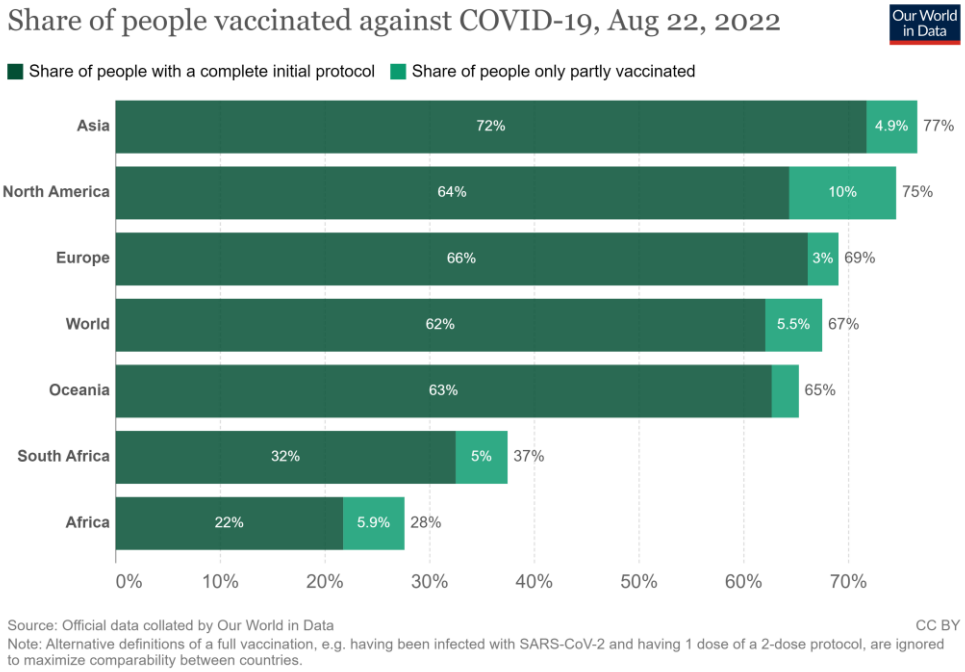
Location	Doses Given	Complete Initial Protocol (% of population)	Partly Vaccinated (% of population)
Worldwide	12.50 billion	4.91 billion (62.04 %)	5.34 billion (67.49 %)

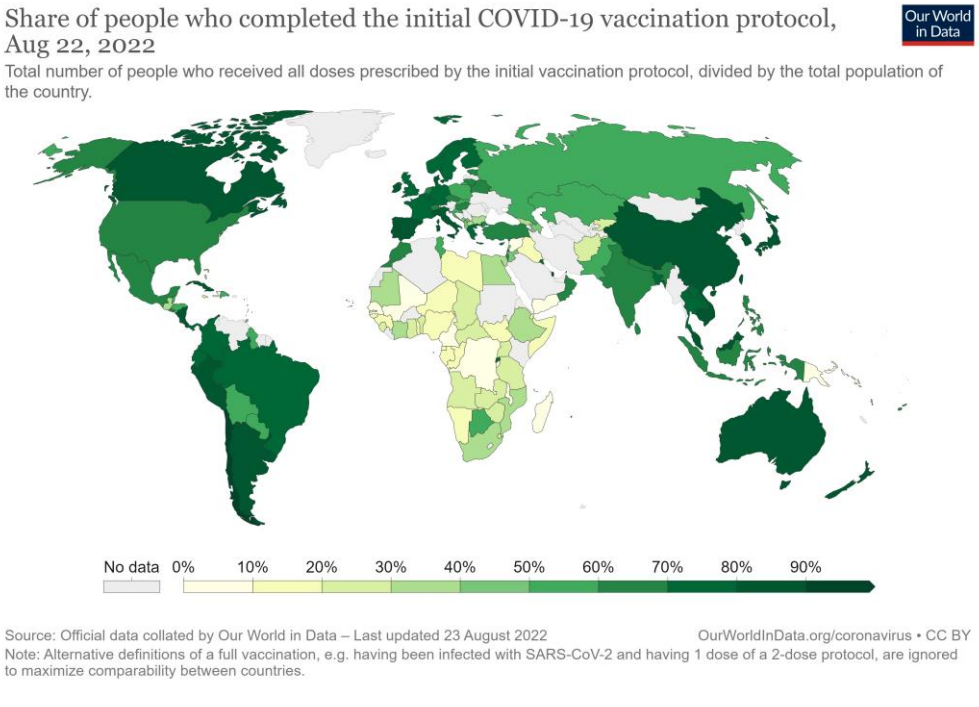
About this data:

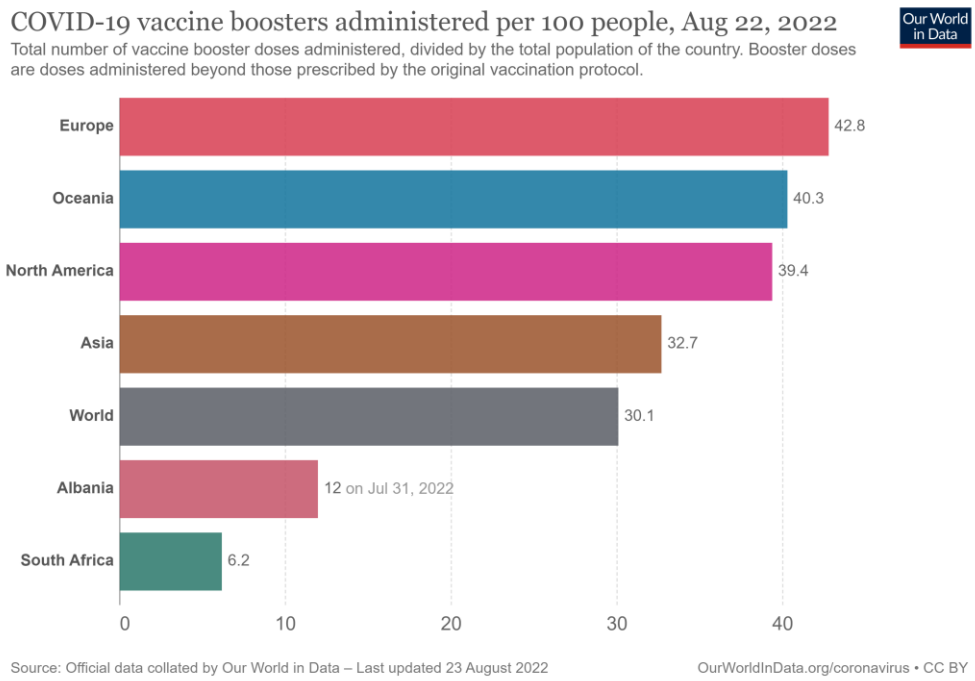
a: This data changes rapidly and might not reflect doses still being reported. It may differ from other sites & sources.

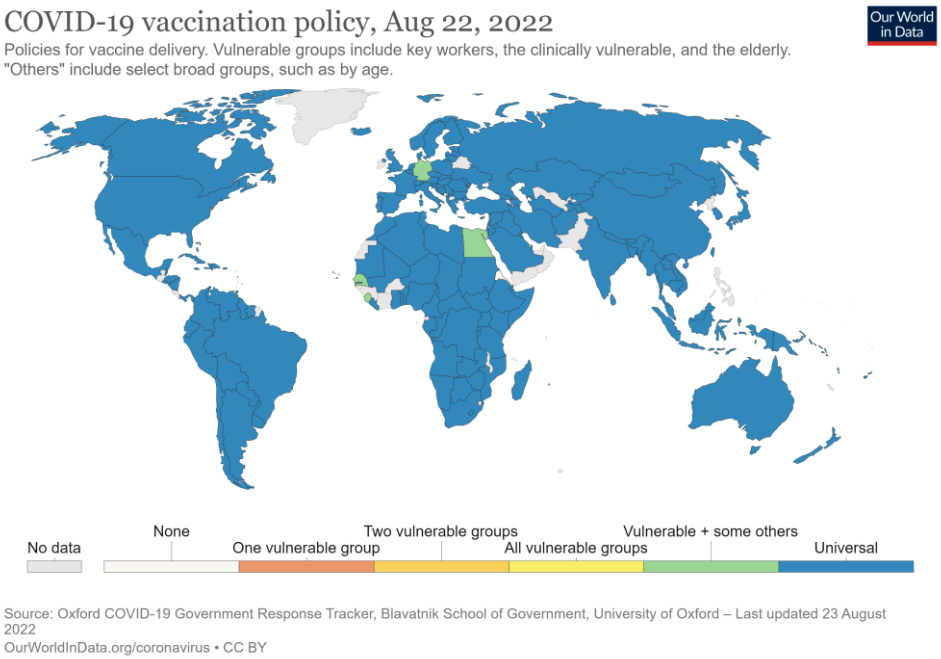
b: Where data for full vaccinations is available, it shows how many people have received at least 1 dose and how many people have been fully vaccinated (which may require more than 1 dose).Where data for full vaccinations isn't available, the data shows the total number of vaccine doses given to people. 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.









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] 89% [4]	**88%** (95%CI: 85.3-90.1%)[1] **42%** (95% CI: 13-62%)[2] **87%**[4]	**50%** (95% CI: 35%–62%)[8]

		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

- SARS-CoV-2-specific T cells in the changing landscape of the COVID-19 pandemic. (Published August 17, 2022)

- Protection against symptomatic disease with the delta and omicron BA.1/BA.2 variants of SARS-CoV-2 after infection and vaccination in adolescents: national observational test-negative case control study, August 2021 to March 2022, England(Published August 22, 2022)

- Symptom presentation among SARS-CoV-2 positive cases and the impact of COVID-19 vaccination; three prospective household cohorts(Published August 22, 2022)

4. Other Information

- Pfizer and BioNTech Submit Application to U.S. FDA for Emergency Use Authorization of Omicron BA.4/BA.5-Adapted Bivalent COVID-19 Vaccine (Published 22 August 2022)

- CDC: Safety Monitoring of Pfizer-BioNTech COVID-19 Vaccine Booster Doses Among Children Aged 5–11 Years — United States, May 17–July 31(Published 19 August 2022)

- UK: What your NHS COVID Pass letter for travel tells you (Last updated 23 August 2022)