Vaccination Report – 28 December 2021

1. Vaccine Implementation

- WHO's Emergency Use Listing(EUL) Vaccines (Last Updated 23 Dec 2021）
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	Manufacturer	Name of Vaccine	NRA of Record	Vaccine type
1	Pfizer-BioNTech (US)	BNT162b2/COMIRNATY Tozinameran (INN)	EMA/USFDA	mRNA
2	AstraZeneca (UK)	ChAdOx1 (AZS1222 Vaxzevria)	EMA/ MFDS KOREA/ Japan MHLW/PMDA/ Australia TGA	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	Non ReplicatingViral vector
5	Moderna (US)	mRNA-1273	EMA/USFDA	mRNA
6	Sinopharm Beijing (China)	BBIBP-CorV	NMPA	Inactivated virus (Vero Cells)
7	Sinovac (China)	SARS-CoV-2 Vaccine	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

- **30** Vaccines Approved by at Least One Country

Vaccine Type	mRNA	Non Replicating Viral vector	Inactivated virus	Protein Subunit	DNA	Total
In Use	3	6	10	10	1	**30**

Source: https://covid19.trackvaccines.org/vaccines/ （Last Updated 27 Dec 2021）

- Vaccination against COVID-19 has now started in **218** locations
  (Source: Our World in Data.Last Updated 27 Dec, 2021)

Location	Doses	Fully vaccinated	At least 1 dose

|	given	(% of population)	(% of population)
Worldwide	9.02 billion	3.81 billion (48.44%)	4.52 billion (57.44%)

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.

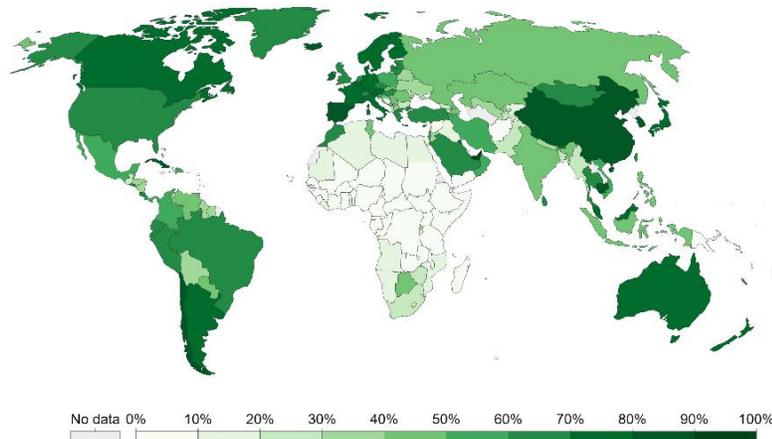Share of people vaccinated against COVID-19, Dec 27, 2021
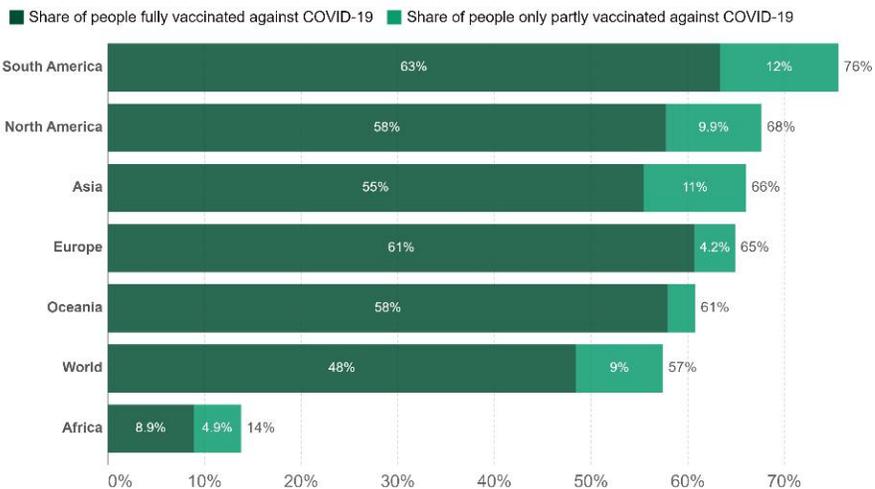
Source: Official data collated by Our World in Data
Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.

Share of the population fully vaccinated against COVID-19, Dec 27, 2021
Total number of people who received all doses prescribed by the initial vaccination protocol, divided by the total population of the country.
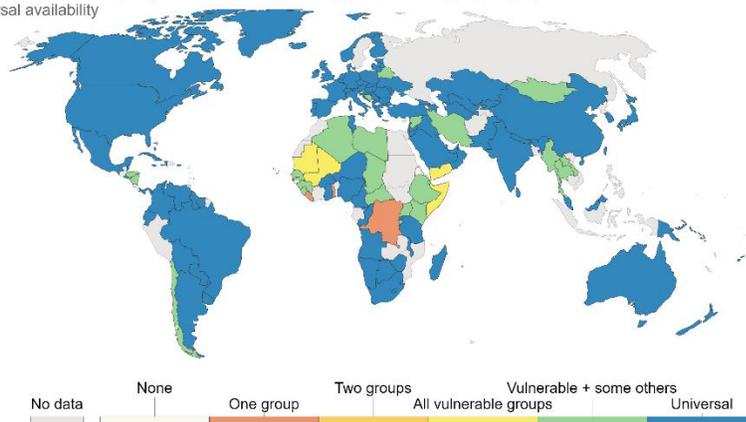
Source: Official data collated by Our World in Data – Last updated 28 December 2021, 07:30 (London time)
Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.
OurWorldInData.org/coronavirus • CC BY

COVID-19 vaccination policy, Dec 27, 2021

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

2. Vaccine effectiveness against symptomatic infection for Alpha and Delta variants

Vaccine Status	Vaccine Effectiveness	
	Alpha	**Delta**
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)	Unknown	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] 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]
2 Doses(Sinopharm or Sinovac)	Unknown	59.0%, (95%CI: 16.0-81.6%)[3]
3 Doses (BNT162b2)	Unknown	95.33% (SD 6.44)[6]

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](#)

3. Latest Relevant Articles

- [mRNA-based COVID-19 vaccine boosters induce neutralizing immunity against SARS-CoV-2 Omicron variant](#)

- [mRNA booster immunization elicits potent neutralizing serum activity against the SARS-CoV-2 Omicron variant](#)

- [A subset of Memory B-derived antibody repertoire from 3-dose vaccinees is ultrapotent against diverse and highly transmissible SARS-CoV-2 variants, including Omicron](#)

4. Other Information

- [UK Health Security Agency: SARS-CoV-2 variants of concern and variants under investigation in England (23 December 2021)](#)

- [CDC Updates and Shortens Recommended Isolation and Quarantine Period for General Population](#)