Vaccination Report – 5 October 2021

1. Vaccine Implementation

• WHO's Emergency Use Listing(EUL) Vaccines (Last Updated 29 Sep 2021)

| | Manufacturer | Name of Vaccine | NRA of Record | Vaccine type |
|---|-------------------------------------|---------------------------------|--|-----------------------------------|
| 1 | Pfizer-BioNTech (US) | BNT162b2 | EMA/USFDA | mRNA |
| 2 | AstraZeneca (UK) | ChAdOx1 (AZS1222) | 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) |

• 22 Vaccines Approved by at Least One Country

| Vaccine Type | mRNA | Non Replicating Viral vector | Inactivated virus | Protein Subunit | DNA | Total |
|-----------------|------|------------------------------------|----------------------|--------------------|-----|-------|
| In Use | 3 | 6 | 8 | 4 | 1 | 22 |

Source: https://covid19.trackvaccines.org/vaccines/ (Last Updated 1 Oct 2021)

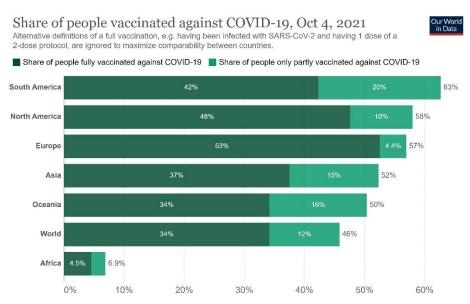
• Vaccination against COVID-19 has now started in **217** locations

(Source: Our World in Data.Last Updated 4 Oct 2021)

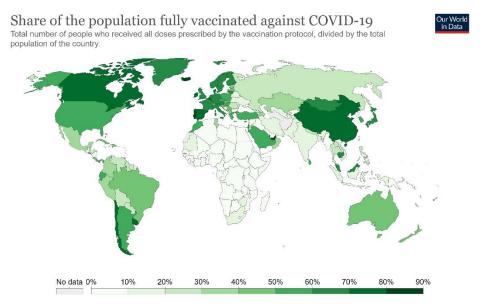
| Location | Doses given | Fully vaccinated (% of population) | At least 1 dose (% of population) |
|-----------|----------------|------------------------------------|--------------------------------------|
| Worldwide | 6.36 billion | 2.69 billion (34.16%) | 3.61 billion (45.83%) |

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.



Source: Official data collated by Our World in Data. This data is only available for countries which report the breakdown of doses administered by first and second doses in absolute numbers.



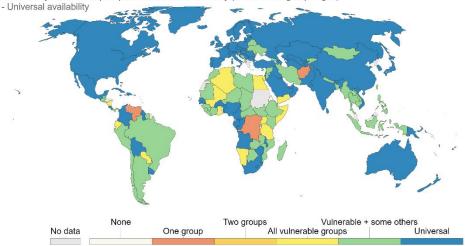
Source: Official data collated by Our World in Data – Last updated 5 October 2021, 10:20 (London time) Our World In Data org/coronavirus • CC BY Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.

COVID-19 vaccination policy

This metric records policies for vaccine delivery for different 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)



Source: Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford - Last updated 5 October 2021, 13:50 (London time) OurWorldInData.org/coronavirus • CC BY

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 | |
| 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 | |
| 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 | |

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



3. Latest Relevant Articles

- Nosocomial outbreak caused by the SARS-CoV-2 Delta variant in a highly vaccinated population, Israel, July 2021
- Effectiveness of mRNA BNT162b2 COVID-19 vaccine up to 6 months in a large integrated health system in the USA: a retrospective cohort study
- The durability of immunity against reinfection by SARS-CoV-2: a comparative evolutionary study
- Frequency of surveillance testing necessary to reduce transmission of the Delta variant of SARS-CoV-2

4. Other Information

- EMA's human medicines committee (CHMP) has concluded that an extra dose of the COVID-19 vaccines Comirnaty (BioNTech/Pfizer) and Spikevax (Moderna) may be given to people with severely weakened immune systems, at least 28 days after their second dose.
- Surveys showed 7 In 10 U.S. flyers want a vaccine mandate for domestic air travel,