

## FEATURE

# Global COVID vaccine distribution and inoculations

Vaccinations increase divide between affluent nations and poorer countries as roll-out continues across the world.

By Alia Chughtai and Mohammed Haddad

3 Jan 2021

[Graphics: Global COVID vaccine distribution and inoculations | Coronavirus pandemic News | Al Jazeera](#)



Many countries around the world have begun to vaccinate front-line workers and critical care patients after several COVID-19 vaccines became available in December last year.

The vaccination drive has revealed the divide between affluent nations and poorer countries amid an ongoing global roll-out. In some countries, the process of approval and acquisition of vaccines is continuing.

[COVID-19 vaccines explained in maps and charts India approves Oxford-AstraZeneca and locally made COVID vaccines WHO lists Pfizer-BioNTech COVID vaccine for emergency use](#)

**Here's all you need to know about the vaccination drive across the world:**

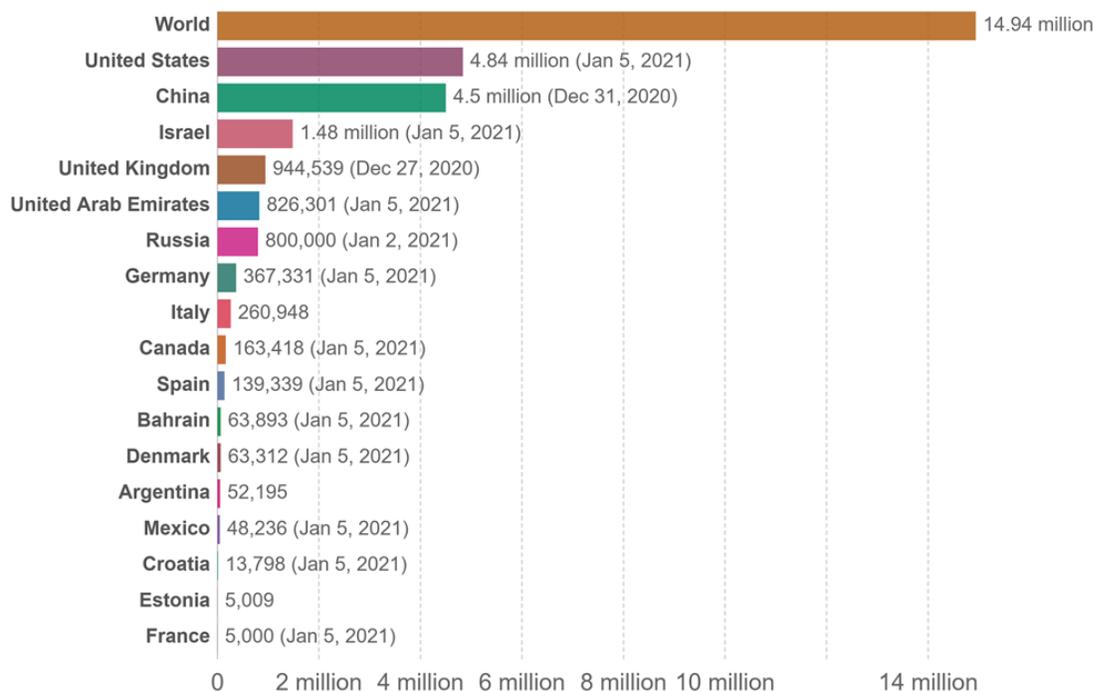
**How well is your country vaccinating its people?**

(Editor's Note: Due to difficulty to download the original Jan, 2, 2021 data, the Jan. 6, 2021 data were used)

## COVID-19 vaccination doses administered, Jan 6, 2021



Total number of vaccination doses administered. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).



Source: Official data collated by Our World in Data. Dates refer to when the data was reported. [OurWorldInData.org/covid-vaccinations](https://OurWorldInData.org/covid-vaccinations) • CC BY

Source: Our World in Data • January 2, 2021

## Which vaccines have been approved?

Various vaccines manufactured in different parts of the world are now available.

**COVID-19**  
Which vaccines are being used around the world?

 OXFORD-ASTRAZENECA	 MODERNA-NIAID
 BHARAT BIOTECH COVAXIN	 PFIZER-BIONTECH
 CANSINO BIOLOGICS	 SINOPHARM-BEIJING INSTITUTE OF BIOLOGICAL PRODUCTS
 GAMALEYA RESEARCH INSTITUTE	 SINO-VAC-INSTITUTO BUTANTAN

SOURCE: REUTERS, LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, HINDUSTAN TIMES | JAN 3, 2021



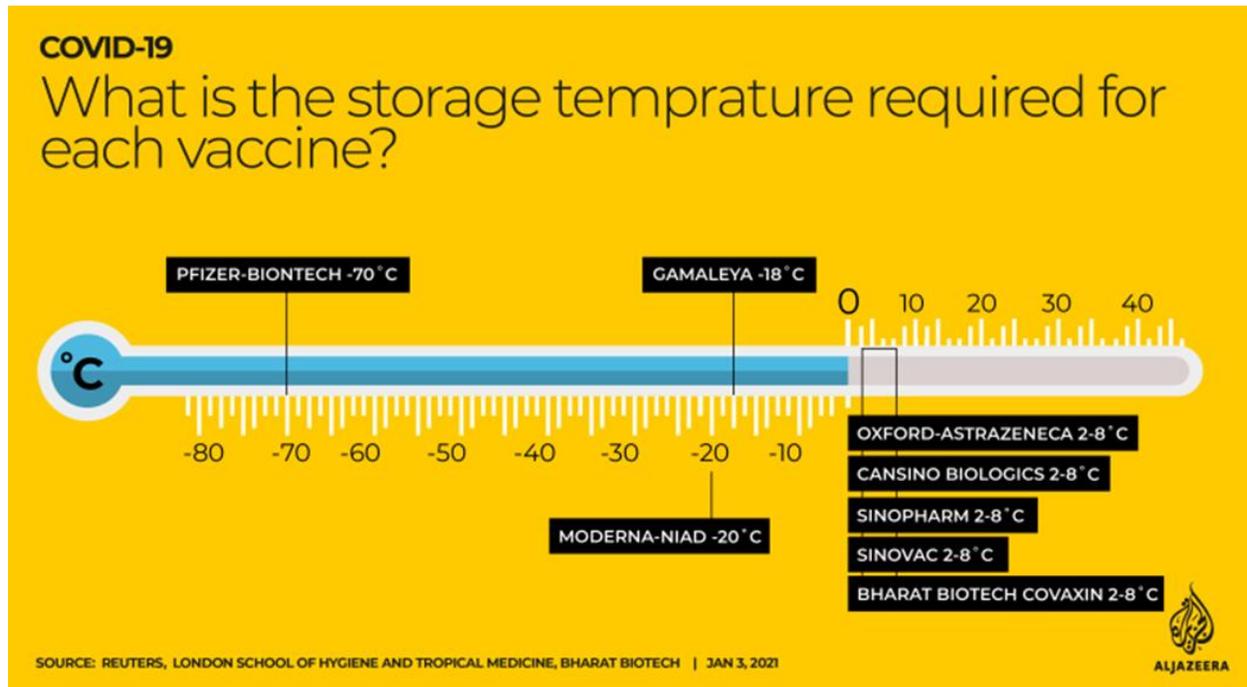
ALJAZEERA

Al Jazeera

### What is the storage temperature for each vaccine?

The revolutionary technology of Pfizer-BioNTech and Moderna's vaccines require significantly lower temperatures at -70 degrees C (-94°F) and -20°C (-4°F) respectively.

The supply chain for these vaccines will be a challenge for the developing world who have existing refrigeration structures for vaccinations between 2-8°C (35-46.4°F).



### How many doses does each vaccine require?

The time between the first and second inoculation in some vaccines vary between three to 12 weeks.

The only vaccine with a single dose is by China's CanSino Biologics.

Source: Our World in Data • January 2, 2021

## Which vaccines have been approved?

Various vaccines manufactured in different parts of the world are now available.

**COVID-19**

### How many doses does each vaccine require?

 <b>OXFORD-ASTRAZENECA</b>	 <b>MODERNA-NIAID</b>
 <b>BHARAT BIOTECH COVAXIN</b>	 <b>PFIZER-BIONTECH</b>
 <b>CANSINO BIOLOGICS</b>	 <b>SINOPHARM-BEIJING INSTITUTE OF BIOLOGICAL PRODUCTS</b>
 <b>GAMALEYA RESEARCH INSTITUTE</b>	 <b>SINOVAC-INSTITUTO BUTANTAN</b>

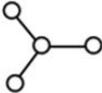
SOURCE: REUTERS, LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, HINDUSTAN TIMES | JAN 3, 2021



## Is there a difference between vaccines?

**COVID-19**

### What are the different kinds of vaccine?

					
<b>RNA</b>	<b>DNA</b>	<b>Viral vector</b>	<b>Virus-like particle</b>	<b>Protein sub-unit</b>	<b>Inactivated virus</b>
RNA vaccines work by introducing an mRNA sequence (the molecule which tells cells what to build) to the system which is coded for a specific antigen.	Short for deoxyribonucleic acid, DNA is another of the crucial macromolecules for life. A DNA vaccine involves the direct introduction into appropriate tissues of a plasmid - a doubled-stranded molecule which exists in bacterial cells.	Vaccines use live viruses to carry DNA into human cells.	This type of vaccine contains molecules that mimic the virus but are not infectious and, therefore, not a danger. VLP has been an effective way of creating vaccines against diseases such as human papillomavirus (HPV), hepatitis and malaria.	This kind of vaccine uses a part of the virus, in this case the protein component. These vaccines can also be used on almost anyone, including people with weakened immune systems and long-term health problems.	These vaccines use the dead version of the virus that causes a disease.

SOURCE: VACCINES.GOV, NEWS MEDICAL LIFE SCIENCES, SCIENCE MEDIA CENTER | NOVEMBER 24, 2020



## How efficacious is each vaccine?

The newer kind of vaccine, the mRNA ones manufactured by Moderna and Pfizer-BioNTech, have the highest efficacy.

**COVID-19**  
How efficacious is each vaccine?

OXFORD-ASTRAZENECA	<b>70%</b>	MODERNA-NIAID	<b>94.5%</b>
BHARAT BIOTECH COVAXIN	Data not released	PFIZER-BIONTECH	<b>95%</b>
CANSINO BIOLOGICS	Data not released	SINOPHARM-BEIJING INSTITUTE OF BIOLOGICAL PRODUCTS	<b>79%</b>
GAMALEYA RESEARCH INSTITUTE	<b>91%</b>	SINOVAC-INSTITUTO BUTANTAN	Data not released

SOURCE: REUTERS, LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, HINDUSTAN TIMES | JAN 3, 2021



### Doctor's Note: What we know about the new strain of COVID-19

Source: Al Jazeera and News Agencies

It may be even more infectious, but how dangerous is the new variant of the virus that has been identified in the UK?

31 Dec 2020

Editor's Note:

## A Second Chinese Coronavirus Vaccine Is Said to Be Effective

**Sinovac Biotech** has sold more than 300 million doses to the developing world, filling a gap left by Western countries.

Excerpted from [https://www.nytimes.com/2021/01/07/business/china-coronavirus-vaccine-sinovac.html?\\_ga=2.135456377.956164848.1610126972-1863855091.1610126972](https://www.nytimes.com/2021/01/07/business/china-coronavirus-vaccine-sinovac.html?_ga=2.135456377.956164848.1610126972-1863855091.1610126972)



*Residents waiting to be tested for the coronavirus in Beijing. China has set its sights on supplying the developing world with a vaccine for the virus. Credit...Noel Celis/Agence France-Presse — Getty Images*

By [Sui-Lee Wee](#) and [Ernesto Londoño](#)

Jan. 7, 2021

Brazilian officials said Thursday that a coronavirus vaccine made by a Chinese company was effective, bolstering the chances of approval for a second Chinese inoculation that could be rolled out in much of the developing world.

Officials in the state of São Paulo, where a prominent medical research institute carried out

a large study of the vaccine made by the Beijing-based **Sinovac**, said the inoculation had an efficacy rate of 78 percent.

The vaccine prevented all participants from developing serious and mild complications from the virus, officials said, calling it a highly effective preventive tool.