



# **Economic and Social Council**

# Topic 2: The question of the international distribution of the COVID-19 vaccine Research Report by Vittoria Valeri

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# 1. Definition of Key Terms

**Vaccine:** a substance containing a virus or bacterium in a form that is not harmful, given to a person or animal to prevent them from getting the disease that the virus or bacterium causes.

**Distribution:** the act of dividing something among people, or spreading or supplying something.

**SARS:** Severe acute respiratory syndrome (SARS) is a viral respiratory disease of zoonotic origin caused by severe acute respiratory syndrome coronavirus (SARS-CoV or SARS-CoV-1).

**MERS:** Middle East respiratory syndrome (MERS), also known as camel flu, is a viral respiratory infection caused by the Middle East respiratory syndrome-related coronavirus (MERS-CoV).





**EUA:** An Emergency Use Authorization (EUA) is a mechanism to facilitate the availability and use of medical countermeasures, including vaccines, during public health emergencies, such as the current COVID-19 pandemic.

**Coronavirus:** Coronavirus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

**RNA vaccine:** or mRNA (messenger RNA) vaccine is a type of vaccine that uses a copy of a natural chemical called messenger RNA (mRNA) to produce an immune response.

**Inactivated vaccine:** (or killed vaccine) is a vaccine consisting of virus particles, bacteria, or other pathogens that have been grown in culture and then killed to destroy disease-producing capacity.

**Peptide vaccine:** vaccines based on in vitro—synthesized peptides of 20–30 amino acids, known to be highly immunogenic and to trigger the desired immune response.

Viral vectors vaccines: vaccines that use live viruses to carry DNA into human cells.

**Incubation period:** the time elapsed between exposure to a pathogenic organism, a chemical, or radiation, and when symptoms and signs are first apparent.

#### 2. Introduction

As a result of the 2 million deaths caused worldwide by the COVID-19 outbreak, as of January 2021, nine vaccines out of the sixty nine candidates have been authorized for public use.

#### These nine vaccines are:

- the Pfizer–BioNTech RNA vaccine, developed by two German/American pharmaceutical corporations
- the Moderna RNA vaccine developed by an American pharmaceutical company
- the EpiVacCorona a peptide vaccine developed by Siberia's vector Institute
- the BBIBP-CorV inactivated vaccine from the Chinese state-owned enterprise "Sinopharm"



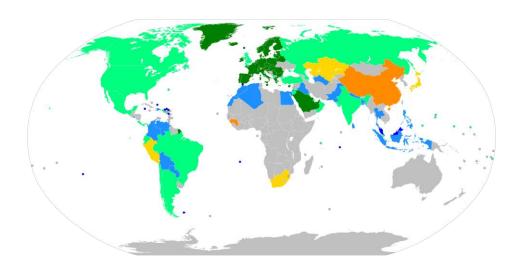


- the BBV152 inactivated vaccine developed by the Indian biotechnology company "Bharat Biotech"
- the CoronaVac inactivated vaccine from the Chinese biopharmaceutical company "Sinovac"
- three viral vector vaccines known as "Sputnik V" developed by the Gamaleya Research Institute and the Oxford–AstraZeneca

Many countries have carried out phased distribution plans, propositions that prioritize people at higher risk of complications, like the immunocompromised and the elderly, and the ones at high risk of exposure and transmission, such as people who work in healthcare.

Official documents from health agencies affirm that, as of 14 January 2021, 32.64 million doses of COVID-19 vaccine have been administered globally.

By the end of 2020, more than 10 billion doses of vaccine had been pre-ordered by countries. About half of those doses had been purchased by high-income or developed countries.



Map of countries by approval status

Approved for general use, mass vaccination underway

EUA (or equivalent) granted, mass vaccination underway

EUA granted, limited vaccination

Approved for general use, mass vaccination planned

EUA granted, mass vaccination planned

EUA pending





# 3. Background information

COVID-19 is a new strain of coronavirus that had not been identified in humans (previously to December 2019).

Coronaviruses are a large family of viruses that can cause illnesses as debilitating as Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS).

The first case of Covid-19 was identified in December 2019 in China (more specifically in the Hubei province' capital, Wuhan).

Since December 2019 confirmed cases of Covid-19 have been reported worldwide which led to an ongoing pandemic and international public health crisis.

The symptoms of the virus range from cold-like fevers, coughs and breathing difficulties, all the way up to critical symptoms such as respiratory failure. The incubation period can be anywhere between two and fourteen days. It is crucial to state that even if a person is still incubating the virus, and is therefore not showing any symptoms, they are still contagious. About a third of the people that are infected remain asymptomatic but can still spread the virus.

By June 2020, billions of dollars were invested by corporations, health organizations, governments and research groups to develop vaccine candidates and prepare international vaccination programs to immunize against the virus.

## 4. Major Countries involved

In order to truly moderate and end the COVID-19 crisis, every country requires to immunize its inhabitants. At least 42 states have started to produce safe and efficient COVID-19 vaccines.

Chart that indicates COVID-19 vaccine distribution by location (as of Jan 23) (Country...number of vaccinated individuals)





United States	16,243,093	United Arab Emirates	2,176,798
China	15,000,000	India	1,582,201
United Kingdom	5,861,351	Germany	1,469,353
<b>─</b> England	5,085,771	Italy	1,343,880
Israel	2,492,196	C• Turkey	1,226,883

On December 11 2020, the **United States** Food and Drug Administration (FDA) granted emergency use authorization for the Pfizer-BioNTech vaccine while on December 18 of the same year, the federal agency granted the Moderna vaccine emergency use authorization. As of January 29 2021, more than 22 million people have received one, out of the two necessary doses, of the vaccine in the US alone.

In July 2020, the Chinese government granted an emergency use authorization for COVID-19 vaccines developed by Sinovac Biotech and China National Biotech Group. The government also approved a different vaccine developed by CanSino Biologics for use in the military. By mid-december 2020 roughly 1 million doses of the vaccine had been administered in the **People's Republic of China**.

As of 8 January 2021 the British government ordered a combined total of 367 million doses across 7 different vaccines. As of 28 January 2021, a total of more than 7 million people had received the first dose in the **UK**: 6,816,945 in England; 196,131 in Northern Ireland; 515,855 in Scotland and 362,253 in Wales. In addition, a cumulative total of 478,254 people had received the second dose: 446,372 in England; 24,070 in Northern Ireland; 7,095 in Scotland and 717 in Wales.





Half of the world's total cases have been registered mainly in three countries: the **US**, **India** and **Brazil**. Millions of people were infected and hundreds of thousands have lost their lives in the US alone due to COVID-19.

**Russia** is the fourth country with the highest amount of registered cases, followed by two South American countries: **Colombia** and **Argentina**.

**Spain** scores the seventh position on this list right over **Peru**, **Mexico** and the only other European country, **France**.

#### 5. UN Involvement

António Guterres, the UN Secretary-General, has stressed several times the urgency to make COVID-19 vaccines "a global public good", affordable and accessible to everyone, through the COVAX Facility: a global mechanism which aims to deliver two billion doses of the vaccine by the end of 2021. Nevertheless, there have been some concerns about how the distribution of the vaccines will take place and about how unbiased that will be. The Un Secretary-General also urged worldwide support to defeat the ongoing pandemic.

The UN Children's Fund (UNICEF) will organize the acquisition of the vaccines, in addition to personal protective equipment (PPE) for lower income countries.

## 6. Major Parties involved

- United Nations
- o WHO
- **O UNICEF**

#### 7. Useful links

https://news.un.org/en/story/2021/01/1082792

https://coronavirus.dc.gov/vaccine

https://www.bbc.com/news/coronavirus

https://en.wikipedia.org/wiki/COVID-19 vaccine





https://www.who.int/