

Research Report

Assembly: Security Council

Topic: The question of the distribution of COVID 19 vaccinations

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Introduction

The SARS-CoV-2, or more known as the covid-19 virus, is an RNA virus presumably originating from the bat-borne coronavirus. As of today writing this report, the virus has killed over 1.2 million people with over 46 million confirmed cases worldwide. Since the lockdowns during 2020, the United State's economy has been on its worst decline since World War 2, passenger flights' has decreased by over 90% and people have been thrown into an unknown environment not being able to trust whatever information they see. To put an end to this, the world has been busy with creating a vaccine for the covid-19 virus.

Although there have been lots of 'ineffective' vaccines before today, major companies originating from the USA and Europe have been reporting that they have been close in completing a vaccine for the virus. However, they haven't been FDA approved and the storage conditions and intentions of governments of the distribution of the vaccines has placed obstacles in the way of the future distribution of the vaccines.

Definition of Key Terms

Pfizer

Pfizer is a pharmaceutical company that is based in New York, USA. The company is best known for its medicine and drugs like Advil, Viagra, Xanas and Zoloft.

BioNTech SE

BioNTech is a company based in Mainz, Germany dedicated to the development and manufacture of active immunotherapies to treat the symptoms and diseases of patients.

Moderna

Moderna is another American based company that develops biotechnology. It is based in Cambridge and works to make mRNA vaccines.

BNT-162

The BNT-162 vaccine is a joint product by Pfizer and BioNTech SE that is said to prevent the infection of the covid-19 virus. Right now the vaccine is up for approval of the FDA and over 200 million doses are produced.

mRNA-1273

A vaccine co-produced by Moderna to prevent covid-19 and is also in testing phase like the BNT-162.

RNA virus

A virus that is an RNA strand. In this case, the covid-19 virus is an RNA virus

Background information

The coronavirus vaccine has been in the works for months and unlike other RNA viruses, it has spawned many vaccines. There are a handful of 'completed' vaccines and lots more that are almost completed and are in the testing phase. Although there are plenty of other vaccines from different countries, the vaccine makers taking most media attention are Pfizer and Moderna. Pfizer, a USA based company has been working with BioNTech to create a vaccine and reports show that they are very close to one and it is waiting for FDA approval. To meet up with demand, Pfizer has already produced millions of vaccines ready to be distributed around Europe. However, even though the testing phase is one hurdle, experts say the next phase,

sending the vaccines to people worldwide, will take an unprecedented amount of time and effort to complete successfully. This is due to the storage conditions of Pfizer's vaccine.

Pfizer's vaccine, the BNT-162, requires precise storage conditions of -94° Fahrenheit or -70° celsius and it will only survive for 1-2 days under refrigerated conditions. Other vaccines from other companies have reported more lenient conditions than Pfizer's'. However, many companies and organizations have already made preparations and investments to receive and properly store Pfizer's vaccine. However this leaves out the rural areas around the world where the vaccine is most needed due to the lack of hygiene. This creates the problem of how to distribute, where to distribute and to whom to distribute first.

Major Parties Involved

Pfizer

Pfizer is a New York based pharmaceutical company that is in the works of creating the Covid-19 vaccine known as BNT-162. The vaccine is currently under review and in test trials

Moderna

Moderna is another company that is in the works of creating a vaccine named mRNA-1273. The vaccine is also currently being tested in hospitals.

BioNTech

BioNTech is another company that is creating a covid-19 vaccine. It is developing BNT-162 along with Pfizer.

Logistics companies

FedEx, UPS, DHL and other lesser known companies has been reporting and promising limited numbers of distribution bottlenecks of the vaccine.

Timeline of Resolutions, Treaties and Events

Date	Description of Event
31 Dec 2019	Wuhan, China Wuhan Municipal Health Commission reported numerous cases of pneumonia.
1 January 2020	UN The United Nations set up the IMST (Incident Management Support Team) to deal with the outbreak and contain it as best as possible
4 January 2020	UN The United Nations reported cases of pneumonia in Wuhan province of China with no deaths.
5 January 2020	WHO The WHO released its disease outbreak news on the new virus.
10 January 2020	UN Based on the information received from the previous SARS and MERS outbreak, the UN sends countries how to detect the Covid-19 virus through testing.
12 January 2020	China China publicly shares the virus's RNA sequence.
11-12 February 2020	UN WHO convened a Research and Innovation Forum on COVID-19, attended by more than 400 experts and funders from around the world, which included presentations by George Gao, Director General of China CDC, and Zunyou Wu, China CDC's chief epidemiologist.
16-24 February 2020	UN/China A WHO and China joint operation with numerous other countries' experts traveled to Beijing and Wuhan province to study the virus.
11 March 2020	WHO The WHO declares the covid-19 virus a pandemic.

<p>17 March 2020</p>	<p>Pfizer and BioNTech</p> <p>Pfizer and BioNTech informs the public they will be making a joint effort in creating a vaccine.</p>
<p>5 August 2020</p>	<p>Pfizer</p> <p>Pfizer announces that they will be supplying Canada with their BNT162 vaccines.</p>
<p>9 September 2020</p>	<p>Pfizer</p> <p>Pfizer and BioNTech announce that they might supply the EU with over 200 million vaccines.</p>

Relevant UN Treaties and Events

- On January 5th 2020, the WHO publishes an article named “Pneumonia of unknown cause – China” that outlines the start of the Covid-19 virus and provides basic information and situation in China
- From 16th to 24th February 2020, the UN and China led a joint mission with other countries’ experts to China and study the covid-19 virus.
- On 29 February 2020, an updated WHO recommendations for international traffic in relation to COVID-19 outbreak was published.
- On 22 July 2020, the COVID-19 Law Lab initiative was launched. It gathers and shares legal documents from over 190 countries across the world to help states establish and implement strong legal frameworks to manage the pandemic.
- On 11 September 2020, the UN general assembly presented the Draft Omnibus Resolution on the COVID-19 Pandemic.

Previous Attempts

There have been previous resolutions on how to contain the pandemic, however, less resolutions or thought was done in thinking of a way to distribute the vaccines. Right now, there are companies and hospitals that have been preparing their facilities to store the vaccines for covid-19. However, the need for small rural hospitals to have these facilities are needed and a solution is needed in order to equally distribute the vaccine for everyone around the world. There has been talks about how to distribute vaccines like emergency use and eventually a large vaccination campaign, but a more detailed plan needs to be developed in order to prepare for the future problems of the distribution process.

Possible Solutions

It is best to start small and slowly but surely expand to others in need. The first step is emergency use. The people who are more susceptible to the virus, the elderly and children should be the first ones to be vaccinated. Additionally, governments should provide hospitals with money to invest in the correct facilities required to store the covid-19 vaccines. The biggest problems are found in the hospitals in small cities and rural areas, they might need extra measures to use the vaccines as most effectively as possible. More accessible transportation to bigger cities, better technology to store vaccines, more money provided to hospitals might be one of the solutions.

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