**HOW WERE THE VACCINES FOR COVID-19 MADE AVAILABLE SO QUICKLY?**

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# Introduction

Covid-19 is an infectious virus or disease which was caused by SARC-CoV2. The pandemic or Covid-19 has had a big impact on the world economy and human life as it affected humans in both ways mentally and physically. The pandemic or Covid-19 decreases the stability of businesses as well as critically affects the global economic condition also. Hence to recover humans and to protect them from this virus, the governments make protection vaccines or the Covid-19 vaccines. Therefore this assignment will critically evaluate the role of the government in distributing the Covid-19 vaccines, the macroeconomic impact of Covid-19 and justification of the government's R&D and distribution strategies in terms of the macroeconomic impact.

# Discussion

## Role of Government in the Distribution of the covid-19 vaccines

The Covid-19 or pandemic continuously spreading and the illness of humans for Covid was increased regularly. Globally Covid-19 has more than 762,791,152 cases including 6,897,025 deaths and 13,337,964,733 vaccination done by the governments (World health organization, 2023). The governments provide humans with a protection vaccine to avoid being Covid positive as the distribution of vaccines to all the citizens is a big challenge for the governments. Hence the role of governments in distributing the covid-19 vaccines plays a vital role as the roles were planning, securing distribution, certification and analysis of the population. As per de Paula et al. (2022), planning is necessary while distributing the vaccines among a huge quantity of people. The government's plan was considered in supply chain management, security, data sharing and more. Each dose was tracked and the information about the batch number of the vaccine, and the date of the vaccine was collected by the government as these all were planned by the governments to maintain safety for humans.

The governments also pre-planned the second vaccination dose for the people and a booster dose later to prevent Covid-19. Hence planning was a big role for the government in distributing the Covid-19 vaccines. The second role was secure distribution as the distribution of Covid-19 vaccines needed to be delivered to the customer safely and securely to maintain the quality and ignore the cyber security attacks. Hence secure distribution is a big role for governments in distributing the Covid-19 vaccines. As per Vanderslott and Marks (2021), the certification of the vaccines was main during the time of the Pandemic as it proves the eligibility of people. The governments provided certificates to all the vaccinated people as it helps the people to prove that they are vaccinated and are eligible for entering anywhere.

As per Joshi and Bhaskar (2020), the hotels, schools and offices were closed due to lockdown during the pandemic situation, as the situation recovers all the offices, schools and other public places did not allow people without vaccination certificates. Therefore certification helps the government in distributing vaccines as it has data on vaccinated people and helps the government to recognize the non-vaccinated people. Hence certification is a big role for governments in distributing the Covid-19 vaccines. As per Faisal et al. (2022), analytics of the population is needed to know the required quantity of Covid-19 vaccines. Therefore the governments analyse the population and the data of the people to know the exact population as it helps the governments to provide vaccines to all the people. Thus to provide all the human vaccines the governments analyse the population and distribute vaccines as per the requirement. Hence the analysis of the population also a big role in the governments in distributing the Covid-19 vaccines.

## Macroeconomic impact of Covid 19

The macroeconomic impacts of Covid-19 are unemployment, GDP, decreased income, misbalance of payments, decreasing of international trade and more. As per Maples et al. (2021), Covid-19 or the pandemic creates losses and decreases the revenue of all businesses. Therefore due to the losses in all businesses for Covid-19, the businesses were not able to provide salaries to all the employees and thus the pandemic created an unemployment situation. As the Covid-19 created the worst job crisis and also created depression for the employees. Hence unemployment is a macroeconomic impact of Covid-19. The GDP of the global economy lost nearly $8.5 trillion (United Nations, 2023). The GDP has hugely decreased during the time of Covid-19. As the GDP per capita was 6.7 per cent and the GDP of employment was felt by 5.4 per cent in emerging economies (United Nations, 2023).

Therefore the decrease in GDP is a big macroeconomic impact of Covid-19. The decrease in income during the time of Covid-19 is a macroeconomic impact. As the income level of every person during the time of Covid-19 was decreased and which created problems for the people. The decreased income affects the people mentally due to the lack of cash in hand. Hence decreased income is a big macroeconomic impact of Covid-19. The Covid-19 or pandemic also misbalances payments as the banking sectors were closed during the pandemic situation and the remaining payments of businesses were pending due to the closure of banking sectors and it also raises problems for people as the people save and gathers their money in the banks and due to the closing of banking sectors, the people faces problems regarding cash which is needed for regular living and purchase during the time of Covid-19.

As per Gkiotsalitis and Cats (2021), during the time of Covid-19 due to a lack of transportation, the governments were not able to do international trade and also failed to shift and deliver Covid-19 vaccines to other countries. The decrease in international trade due to the lack of transportation also affects the economic condition of the governments. As per Putra, Tong and Pribadi (2020), due to the lack of transportation, the demand for regular products was high and therefore the people used inflation as they increased the price of the products and sold the products to other people. Therefore it also creates problems for normal people as they don't have jobs as well as the banking sectors were also closed due to the pandemic. Hence the decreased international trade is a microeconomic impact of Covid-19.

## Justification of government’s R&D and distribution strategies in terms of the macroeconomic impact

The R&D and distribution strategies of the Covid-19 vaccines were justified in the global platform as vaccines were accessible and available to the people. The research and development strategy was accordingly favourable as the vaccines were discovered quite quickly. The governments furthermore pre-planned the second vaccination dose for the individuals and a booster dose later to prevent Covid-19 (WHO, 2022). The approach was favourable for the individuals of the nations as in most of the countries the vaccines were distributed free of cost. The government developed and supplied vaccine candidates for use in drug substance, QC, formulation and filling, and distribution subsidising saleable or clinical test usage (Defendi et al. 2021). The vaccines were distributed through a centralised distribution network. Pharmaceutical organisations that circulate vaccines outside of the U.S. government’s distribution associate, McKesson, constructed their own logistics and distribution chain (Powers et al. 2020). Similarly, in the United Kingdom, the R&D and distribution strategies inspired people to regularly test for COVID-19 and maintain the home quarantine. The government of the nation accordingly suggested people do health check-ups regularly ***[Refer to appendix].***

The governments also created funds and adopted a project to distribute essential pieces of equipment to individuals. The decision aided people with survival kits and helped them to survive in the critical situation of the COVID-19 pandemic. The certificate provided by the governments after vaccination helped people to track the records and keep in mind the next dose. The national government has bought up to 600 million doses of the Pfizer/BioNTech vaccine, Pfizer did not receive a national allocation for its vaccine analysis and development, and therefore far is the superior corporation that was dedicated to distributing vaccines outside of the government’s centralised distribution route (Tagoe et al. 2021). The governments analysed the national population to understand the requirements of the vaccines. The approach helped to determine the number of vaccines that need to be launched in the market. The R&D and distribution strategies impacted the macroeconomy positively. The free distribution of vaccines helped global human inhabitants to avoid health issues and costs (Roper and Turner, 2020). On the other hand, the free hospitality and medical support provided by governments affected the macroeconomy negatively as the services were free for the public but the government had to pay the expenses from funds. As a result, the rate of GDP in various nations dropped significantly.

# Conclusion

It can be concluded that the role of governments in distributing the covid-19 vaccines plays a vital role as the roles were planning, securing distribution, certification and analysis of the population. The governments also pre-planned the second vaccination dose for the people and a booster dose later to prevent Covid-19. Hence, planning was a big role for the government in distributing the Covid-19 vaccines. Certification helps the government in distributing vaccines as it has data on vaccinated people and helps the government to recognise non-vaccinated people. The R&D and distribution strategies of the Covid-19 vaccines were justified in the global platform as vaccines were accessible and available to the people.

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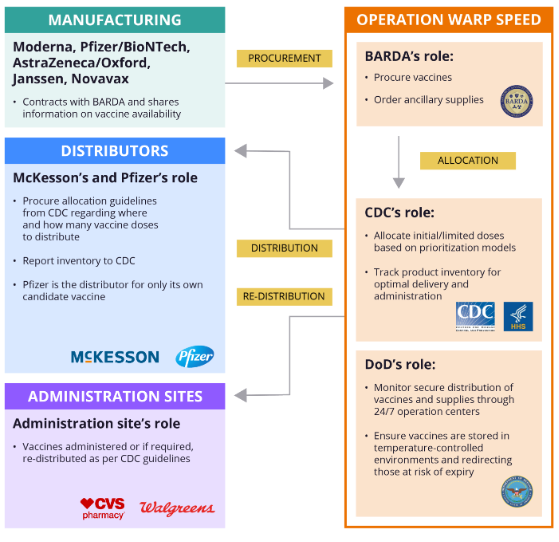
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# Appendix: Flow of vaccine distribution



(Source: Powers et al. 2020)