

# Analysis on Covid-19 Vaccinations Mandatory

Jiayi Wu<sup>1,\*</sup>, Yehao Guan<sup>2</sup>

<sup>1</sup>St. Cuthberts College, Auckland, 1024, New Zealand

<sup>2</sup>Wuxi United International School, Wuxi, Jiangsu, 214000, China

\*Corresponding author. Email: rebeccawu060101@gmail.com

## ABSTRACT

In December 2019, a serious virus called CoronaVirus Disease 2019 began to break out from Hubei Province, China to the entire world and caused more than four million deaths. Two years later in 2021, almost every country in the world still does its utmost to fight the virus and save countless lives. After more than a year of research, the vaccine against Covid-19 has been used all over the world. However, a small number of citizens express reluctance to be vaccinated since the mortality rate is high after vaccination and the possibility of contracting the disease after vaccination still exists. Therefore, whether governments make Covid-19 vaccinations mandatory for everyone becomes controversial in society. The author's research method is collecting relevant information from the internet and the target population's global coverage. After doing a series of investigations and analyses, the author got the conclusion that Covid-19 vaccinations should be mandatory.

**Keywords:** Vaccinations, Mandatory, Covid-19, Worldwide governments.

## 1. INTRODUCTION

COVID-19 continues to plague the world. In addition, various vaccines have been developed and applied. Multiple countries are seen to offer economic incentives or compulsory vaccination to ensure high coverage. However, there are still some uncertainties with the current vaccines, and whether the higher fatality rate or the news reports that the newly emerging Delta virus can be infected after vaccination makes people constantly entangled in the issue of whether they should be vaccinated. The governments of various countries also have different policies for vaccination. Some people advocate compulsory vaccination, while others argue that vaccination should be based on personal willingness. This article will discuss whether there is any "obligation" for compulsory vaccination and what is the desirability of stimulating vaccination. There is limited research on this topic. Therefore, this research is significant for helping certain hesitant citizens to understand how important the vaccination is under the present situation and why the government needs to make vaccination mandatory, so that they are aware of their rights and obligations and then make their judgments.

## 2. REASONS FOR MANDATORY VACCINATION

COVID-19 is almost unique due to the gravity of the problems attributed to it globally: there is the cost in terms of lives from COVID-19. In addition, the severe economic, health, and well-being consequences of various virus-control measures, including lockdown, will unfortunately extend into the future for multiple countries. The authors believe that the most likely reason behind compulsory vaccination is that a considerable number of nations worldwide nowadays apply as the main way to combat COVID-19. The coercive measure, being coercive, would effectively prevent the virus from further spreading within the communities, given its high transmission rate. On December 21, 2020, Wang Huaqing, chief expert of the China Centers for Disease Control and Prevention's immunization program, stated at a press conference: "The coverage rate of the new crown vaccine must reach 75% to make the population immune to 70% [1]. Therefore, the population's vaccination number is very important for the formation of an immune barrier." In general, if two conditions are met one being public health is severely threatened, the other being vaccines are safe and effective, compulsory vaccination would be relatively reasonable. These two conditions will be elaborated further in the following sections.

## 2.1 Public health concerns

Many large-scale epidemics caused by infectious viruses in the world can be traced back to ancient times, and some have existed in nature since prehistoric periods. Mankind has battled with plague for thousands of years, and the most important achievement is the invention of vaccines and the ensuing mass vaccination. Mass vaccination becomes more essential when we consider the unprecedentedly high mortality and the potential threat of COVID-19 Globally, 4.05 million people died of COVID-19[2]. Only in China, the number of inoculations exceeded a shocking 1.382 billion (as of July 14, 2021)[3]. Due to the long term health effects of COVID-19, there are serious public health concerns in the future. However, many people still hold the opinion that the disease has not yet entered a serious enough stage to make vaccinations mandatory. Taking China as an example. China's epidemic prevention measures have done very well. People who lack vaccination awareness will use official media and community epidemic prevention work, believing that they will be infected if they are not vaccinated. This led to a slight increase in the number of vaccinated people. History has demonstrated the erroneous nature of such concepts. In 1901, the City of Boston registered 1,596 confirmed cases of smallpox, a highly contagious fever that is notorious for causing severe skin rashes on the face and arms, often leaving survivors with lifelong trauma[4]. In Boston alone, 270 people died of smallpox in the outbreak of smallpox from 1901 to 1903. The high mortality of smallpox compelled public health officials in Boston and neighboring Cambridge to issue compulsory vaccination orders, eventually achieving the 90% vaccination rate required which effectively immunized the community. Having such an instance ahead, we have to admit that in the face of serious public health threats, compulsory vaccination is necessary, especially for COVID-19, a virus that proved even more life-threatening and contagious than smallpox.

## 2.2. The unsafe and ineffectiveness of vaccines

Many people who have not been vaccinated worry that the vaccine may be unsafe or ineffective. This is also one of the reasons why countries have adopted tough measures in terms of compulsory vaccination. Generally speaking, it takes 8 years for a vaccine to go from the development stage to eventually enter the market. In a severe public health emergency, the R&D of any vaccine rapidly accelerates. The inherent probability of any further biological development, such as mutation, of the targeted pathogen, means that no vaccine can be promised to be 100% safe[5].

Survey results show:

-In general terms:

- Of all adults surveying a pathogen, 74% are willing to get vaccinated (if available)

In respect to COVID-19 alone:

-China has the highest level of support for vaccination, with 97% of the interviewees saying they will get the vaccination;

-Russians showed the least interest, with only 54% expressing willingness;

-67% of Americans said they would get vaccinated, 33% said they had little or no interest

-Among those who refused, 60% said side effects were their biggest concern, while 37% thought the vaccine was ineffective;

-Among all the interviewees, only 40% hope to be vaccinated this year.

In conclusion, the best result is that the majority of people would like to accept the vaccination, and the rest of the people are worried about the side effect most. However, more than half of the people don't want to do the vaccination this year. Thus it is essential that the government should introduce vaccines as soon as possible to save more lives from COVID-19. However, compared with longer and more stringent practices, the practicability of vaccination under a certain circumstance is ambiguous due to the coexistence of risks and advantages. Vaccination can be deemed ineffective as a certain number of patients may experience side effects in the aftermath. Nevertheless, on occasions when vaccination is proved safe and effective, it doubtlessly facilitates immunization against a certain disease within a community. Unfortunately, vaccination as a practice to curb the spread of covid seems to fall into the first category. In fact, as the various vaccines developed against covid are all proved to be relatively ineffectual, vaccine rejection seems to be on the rise. For the general public, even if the covid vaccine is scientifically proven to be safe and effective, herd immunity will still be delayed due to hesitation, a common reaction to newly-developed medicines. The unsatisfactory result of covid vaccines, combined with public hesitation towards vaccination, is in fact extremely dangerous as it will cost more accidents and a further delayed return to normal life. As the COVID-19 vaccine may at least be, if not most, partially effective in reducing community transmission/preventing personal illness. If the aforementioned situation continues, the worst scenario is that returning to normal life may even become an impossibility. Therefore, what countries must do is not only to strive scientifically to improve and prove the safety and effectiveness of their vaccines but also to inform and educate the public about the safety and effectiveness of their vaccines, as well as the importance of being vaccinated. Compulsory vaccination will only become most reasonable when it is beneficial to the

individuals and prevention of transmission, all results show that vaccinations in countries are safe and necessary, therefore should become compulsory.

### **2.3. Various duty in the life**

The most frequently used word for the new crown vaccine in China was "voluntary vaccination" during xxx. Now, "obligatory" has replaced "voluntary". However, legally and logically, it is difficult to make sense if purchasing the new crown vaccine becomes an obligation that everyone must fulfill. Article 21 of China's Basic Medical Hygiene and Health Promotion Law introduced in June this year stipulates: The state implements a vaccination system and strengthens immunization planning[6]. Residents have the rights and obligation to receive by the immunization program. The government provides residents with free immunization program vaccines. Without any amendments to the law, the disease control department requires everyone to be vaccinated with the new crown vaccine, which is a provision impervious to reason. It is undeniable that since the new crown epidemic, some countries have proposed to make the new crown vaccination a national obligation. However, no exceptions corresponding to obligations are free. Last month, the Japanese government passed an amendment to the "Vaccination Law", stipulating that the new crown vaccination is a national obligation, and the country will fully cover the cost of each citizen. In addition, the government will take the lead in being responsible for medical expenses in the event of health problems caused by vaccination. Focusing on the interests of the entire public, the authors certainly have no objection. Our country has also made vaccination of the new crown vaccine an obligation that everyone must fulfill, but the premise is that the country must bear the full responsibility of doing so, including costs and the risk of unsatisfactory consequences.

### **2.4. Other mandatory aspects in the world**

In moments of life and death in a country, such as war, the state usually compels the people to contribute to the country and asks them to participate in the war against their will. Even now South Korea implements a conscription system for men. Male citizens between the ages of 20 and 28 must perform military service. different branches of the armed forces have different periods of service, the shortest period of service also requires 23 months of service. People may face a higher risk of death and injury in war than from the epidemic. In many western countries, wearing seat belts is mandatory. Now an increase of 20% of people polled in the United States believes that mandatory seat belts are reasonable[7]. Because it is effective, it can reduce the chance of death. But being forced by the government can cause a mixture of feelings that involves unwillingness and resistance within the public. There will be negative voices within

the community but the importance of making vaccinations mandatory is crucial.

### **3. INCENTIVES FOR MANDATORY VACCINATION**

Many countries around the world have exhausted their abilities to excite interest in citizens about being vaccinated. In order to encourage people to get vaccinated, unconventional tricks from all walks of life in the United States, including free doughnuts, free marijuana, million-dollar lottery, and other incentives have emerged one after another[9]. In Shanghai, China, after being vaccinated, eggs, milk, cash, and other subsidies will be given to the citizens. Therefore this increased the number of people willing to get vaccinated. Ohio Governor Mike DeWine said on social media on the 12th that from May 26, adults who have received at least one dose of the vaccine in Ohio will be eligible to participate in the lottery, and the winner will receive \$1 million[8]. The raffle will last for five weeks and will be held every Wednesday. There will be five winners. We have to question whether these incentive policies are effective and whether they are futile and wasteful. However DeWine said in an interview that he does not believe that these million-dollar sweepstakes are a waste of money: "During the epidemic, when everyone has access to the vaccine, the real waste is that people are killed by the new crown." When we compare this method to payments as an incentive, the latter obviously has an advantage because it may not signal that the vaccine is considered unsafe. Paradoxically, cash payments may introduce unnecessary suspicion (although this may be an intuition). Benefits in kind are less susceptible to such concerns mentioned above because they are directly related to the benefits provided by the vaccine itself: the person receiving the vaccine no longer poses a threat to others. It is visible that exciting interest in citizens is a useful solution in making the public more willing to receive the vaccination.

### **4. NATIONAL VACCINATION ATTITUDE**

Every country has different attitude and legal policy to vaccination. As an independent country in the South Pacific, New Zealand needs to vaccinate those working in MIQ(Managed Isolation and Quarantine) and MIF(Millennium Managed Isolation Facility) and actively encourages vaccination for those over 16 years of age[10]. All vaccine costs are borne by the New Zealand government, regardless of nationality, it's a humane policy for international people. "Latest numbers show there were 4,332 MIQ workers on site for the week ending 4 July, all of whom were vaccinated. No unvaccinated worker can enter a MIQ facility. Among the active air border workers, 82% are fully vaccinated and the 2% have received a single dose and await their second" (Information above is from NZ Covid-19

response minister Chris Hipkins). For EU countries, digital vaccine passports to facilitate people who have been vaccinated were introduced as plans, however rehabilitation and recent test results were negative for free movement of people between countries[11]. The Spanish Workers' Socialist Party and the radical left parties agree with this, but the central government has always opposed it, and the reason is that there is no absolute scientific evidence to show that people who have been vaccinated cannot spread the virus. The Italian government already has relevant laws, according to Esther Happacher, an Italian law professor at Universität Innsbruck, but this law is hardly controversial in Italy. The French government does not want to indirectly force vaccination. President Macron has repeatedly emphasized that vaccination should be based on voluntary principles. In the UK, people who are fully vaccinated will get a vaccination card. The government is currently considering that whether to digitize the vaccination card to facilitate vaccinators to participate in large-scale events. Of course, those who have recently tested negative can also participate in such activities. According to the latest data from the US Centers for Disease Control and Prevention, as of July 25, local time, about 69% of adults in the United States have completed at least one dose of the Covid-19 vaccine, which has not yet achieved the original plan of the US government before Independence Day on July 4[12]. Some American experts present that the number of infections among the unvaccinated groups is increasing rapidly, and the fight against the epidemic in the United States is developing in the "wrong direction."

## 5. CONCLUSION

To conclude, the main reason for mandatory vaccination is to generate antigens in the human body to reduce the chance of infection, thereby effectively preventing the further spread of the virus on a global scale. Mandatory vaccination only becomes reasonable when COVID-19 continues to pose a severe threat to public health and when the vaccination itself is proved to be effective and safe. In response to further protect communities from the still prevailing COVID-19 virus and its variants, many countries have enforced mandatory vaccination, with practices varying slightly in stringency corresponding to cultural stances and customs. Apart from making civic vaccination obligations, various incentives, ranging from regular to unconventional, have also been utilized by nations to assist in mass vaccination and herd immunity. Eventually, at this stage, countries worldwide hold widely divergent opinions on whether vaccination should be mandatory, and judging from the severity of COVID during the drafting of this paper, it would remain a topic of debate in the long term.

## REFERENCES

- [1] China Youth Net, CYN. (December 21, 2020). Chinese Center for Disease Control and Prevention, CCDC: The new crown vaccine and other vaccines should be vaccinated separately as far as possible. <https://baijiahao.baidu.com/s?id=1686682115135922672&wfr=spider&for=pc>
- [2] Wikipedia. Template:COVID-19 pandemic data. [https://en.wikipedia.org/wiki/Template:COVID-19\\_pandemic\\_data](https://en.wikipedia.org/wiki/Template:COVID-19_pandemic_data)
- [3] Global Change Data Lab. Coronavirus (COVID-19) Vaccinations Statistics and Research. [https://ourworldindata.org/covid-vaccinations?country=OWID\\_WRL](https://ourworldindata.org/covid-vaccinations?country=OWID_WRL)
- [4] Michael R. Albert, MD, Kristen G. Ostheimer, MA, David J. Liewehr, MS, Seth M. Steinberg, PhD, Joel G. Breman, MD, DTPH. (December 17 2002). Smallpox Manifestations and Survival during the Boston Epidemic of 1901 to 1903. <https://www.acpjournals.org/doi/10.7326/0003-4819-137-12-200212170-00013>
- [5] Biotech-China. (September 20 2021). Attitudes of people from various groups to vaccination. <https://baijiahao.baidu.com/s?id=1676603449346309739&wfr=spider&for=pc>
- [6] The paper. (October 27 2020). Japan confirms the amendment to the "Vaccination Law": the government will bear the full cost of the new crown vaccine. <https://baijiahao.baidu.com/s?id=1681691482736105428&wfr=spider&for=pc>
- [7] Alberto Giubilini, Julian Savulescu. (October 22 2019). Vaccination, Risks, and Freedom: The Seat Belt Analogy. <https://academic.oup.com/phe/article/12/3/237/5602463>
- [8] Neil Vigdor and Azi Paybarah. (Published May 12 2021 and updated June 1 2021). Ohio Lottery to Give 5 People \$1 Million Each to Encourage Vaccination. <https://www.nytimes.com/2021/05/12/us/ohio-lottery-coronavirus-vaccine.html>
- [9] Zhicheng Sun. (May 02 2021). In order to encourage people to actively vaccinate, various streets in Shanghai launched activities such as egg delivery, fuel delivery, and celebrity meetings. <http://www.nbd.com.cn/articles/2021-05-02/1731416.html>
- [10] Hon Chris Hipkins. (July 12 2021). Govt makes COVID-19 vaccinations mandatory for more border jobs. <https://www.beehive.govt.nz/release/govt->

makes-covid-19-vaccinations-mandatory-more-  
border-jobs

- [11] Jan D. Walter. (May 02 2021). Why can't EU countries unify their attitudes towards vaccine passports? <https://www.dw.com/zh/a-57371525>
- [12] CCTV. (July 27 2021). U.S. Experts: The U.S. Epidemic Has Become an "Epidemic of the Unvaccinated Group". <http://m.news.cctv.com/2021/07/27/ARTIs8uqhyWNiLrmG4V1z6dW210727.shtml>