

Joseph Foley

Professor Trapani

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### Should you get Vaccinated Against Covid-19?

The coronavirus or Covid-19 has been a nuisance to the entire world ever since it arrived in late December of 2019 in Wuhan China. The virus spread rapidly and eventually made its way to the United States in early 2020. The coronavirus itself is very contagious and is spread through bodily fluids from an infected individual by either sneezing or coughing. The symptoms of Covid-19 are similar to the common flu, which makes it harder to detect and it typically goes unnoticed. These symptoms include sneezing, coughing, fever, sore throat, vomiting, and many others. There are two distinct symptoms that make a person lose their sense of taste and smell. This can last up to several months and is the most noticeable symptom the virus has. There is testing for the virus, and it is performed using either a molecular test or antigen test. These tests collect saliva samples from the patient and send them to a lab for diagnosis. The virus has gone on a rampage ever since it started and is continuing to be a problem. The coronavirus is much more lethal than the common flu and to stop it from spreading, scientists needed a way to hinder the virus altogether.

At first, social distancing and wearing masks seemed like the most logical way to slow down the virus from spreading. However, due to the severity of the disease and the continuous increase in cases, scientists realized they needed to develop a vaccine. The Covid-19 vaccine was developed to provide an immune response to healthy individuals if they were to contract the



virus. This vaccine in particular was developed very quickly, in fact, traditional vaccines would take up to 10 years to be developed, while the coronavirus vaccine took less than a year. The speed at which it was created made a lot of people hesitant to receive the vaccine. While vaccine hesitancy is steadily increasing, people should get vaccinated against Covid-19 because the vaccine can save millions of lives, reduce the total number of cases, and can also reduce health and economic costs. The vaccine seems like a promising option; however, it brings up the question should people get vaccinated against Covid-19?

Side effects of the vaccine are typically mild and include symptoms similar to the virus, such as fevers or fatigue. The serious symptoms that can occur are usually due to allergic reactions to the vaccine itself. However, these are rare, and it still makes the vaccine a safer alternative to contracting the virus. The coronavirus has different variants and strands of itself, some of which can be more harmful than others. Serious Covid-19 can affect any age group but is more dangerous in infants and young children. According to Rebecca Woodruff, et al, from the Centers for Disease Control and Prevention, they explain the symptoms of the severe version can be detrimental to the person's health and include things such as chronic lung disease, cardiovascular disease, neurologic disorders, and blood clots (Woodruff et al. 38). Since children are at a higher risk of getting severe Covid-19, they need to be prioritized in receiving the vaccine. Rebecca Woodruff, et al, research also found that one-third of all children that are hospitalized from Covid-19 need medical treatment in the ICU (Woodruff et al. 43). The increasing amount of child hospitalization needs to stop and getting vaccinated will be the only logical way to prevent this from occurring.

The vaccine has shown to be beneficial in the number of deaths and economic costs it has prevented. The coronavirus vaccine is effective because it gives the recipient immunity against



the virus. Studies conducted by Sumedha Gupta, et al, from Indiana University-Purdue University Indianapolis, have shown that around 140,000 Covid-19 related deaths have been prevented by May 9, 2021 (Gupta et al. 1469). The number of lives that have been saved from the vaccine alone has shown how effective it can be. As well as the lives it has saved, Sumedha Gupta, et al, also states, that the vaccine has also prevented 625 billion to 1.4 trillion dollars in mortality, health, and economic costs (Gupta et al. 1469). These numbers show how important it is for people to get vaccinated against the coronavirus. Sumedha Gupta, et al, also mentions, that by the date of May 9, 2021, 550,00 people died from Covid-19 since it came to the United States in early 2021 (Gupta et al. 1469). Ever since the vaccine has been developed, the number of deaths occurring has rapidly decreased. This decrease in deaths due to the vaccine is a great indication that the vaccine is very effective in stopping the virus. Major diseases that were very harmful have been eradicated due to previous vaccines. Mohammad Yusuf Hasan and Rizwan Ahmad, from the School of Biomedical Sciences, claims that vaccines that were previously made to combat diseases such as polio, or measles have been successfully eradicated due to herd immunity (Hasan and Ahmad 2). If everyone were to receive the Covid-19 vaccine, this virus that has caused so much suffering and pain could be eradicated. Although it may take some time to pull off, herd immunity is definitely a good alternative to slow down health and economic costs, as well as the speed at which people are dying.

Educated health care workers such as nurses are not receiving the vaccine partially due to trust issues. The lack of vaccination that these nurses are receiving could harm other people. Health care organizations routinely require vaccinations for nurses, this causes a lot of health care workers to be fired from their jobs, just because they are not getting vaccinated. Christine Kovner, from the American Association of Critical Care Nurses, claims the prevalence of



vaccine hesitancy among health care workers worldwide is 22.5% (Kovner 243). This number is very high because the majority of these health care workers are losing their jobs. This means fewer people to care for patients that have the virus. Hospital shortages are increasing, and hospitals are being overrun by patients. To stop these many people are volunteering at hospitals to try and help the sick people. If these educated health care workers are not getting the vaccine, maybe they have good reasons. Christine Kovner also claims these nurses believe that there is not enough information about the virus, or information about safety, there is a mistrust in the information, they may feel it is not necessary, or they could have personal or religious reservations (Kovner 243). Scientists can back these reasons with facts and statistics, and they still would not get the vaccine. Despite all of the evidence that vaccines protect and help people these educated health care workers are still refusing to get vaccinated, which makes a lot of people more hesitant to receive the virus.

Vaccine hesitancy is a very serious issue. It not only affects the people that are not receiving the vaccine but the entire population. If people refuse to get vaccinated, it is going to be harder to achieve herd immunity. Achieving this will successfully prevent the virus from spreading ever again. This will save millions of lives in the future, as well as billions of dollars in health care costs. Social media has a major influence on producing vaccine hesitancy because the majority of the population uses some form of it. Lulin Zhou, et al, Jiangsu University, claims they have found that trust is the main reason that people are hesitant to get the vaccine. Their studies have shown that mistrust and the intention to receive a vaccination have a negative relationship (Zhou et al. 2). The trust that people have in their leadership is a major factor that either delay or increase the population's willingness to get vaccinated against Covid-19. Lulin Zhou, et al, have also found that due to fear alongside trust, individuals are less likely to be



vaccinated if they do not have faith in their government (Zhou et al. 2). Social media websites such as Twitter and YouTube can spread misinformation about the virus or vaccine. This misinformation that people spread can be dangerous to the entire population. If fake news is spread around it can decrease the willingness to receive the vaccination. This will increase the infection rate and could lead to a resurgence of the virus, which could also be caused by new strains of Covid-19.

The overall effectiveness of the vaccine is slowly decreasing because of new strains that are appearing. The Delta variant is a new strain of the coronavirus, and it has now become the most common version. Eli Rosenberg, et al, from the New York State Department of Health, claims by August 28, 2021, the Delta variant made up of 99.6% of all variants of the virus and the effectiveness of the vaccine decreased from being around 90% to all the way down to 74% (Rosenberg et al. 116). This huge decrease in vaccine effectiveness could increase the chances of getting Covid-19 even if someone has previously received the vaccine. This makes new strains of the virus more dangerous, and it is only a matter of time before the virus mutates to another scarier strain. Since the vaccine is less effective, people might wonder if getting the vaccine is still worth it. However, it is still worth it because if everyone gets vaccinated there can be herd immunity and the virus will eventually disappear. In order to prevent the virus from continuously mutating, people should encourage vaccination.

The coronavirus is a very dangerous disease and has a moderately high mortality rate. This virus is able to quickly spread from person to person and has more severe symptoms than the flu causing it to be deadlier. Daniel Tellez, et al, from the Western University of Health Sciences, states that the virus itself has a mortality rate of 2.8% among all infected individuals (Tellez et al. 309). This number may seem relatively low, but in fact, it is high compared to the



number of people that actually get infected from Covid-19. Daniel Tellez, et al, also claims that symptoms from the virus do not occur instantly and could take 2-14 days to appear (Tellez et al. 310). The virus can spread during this asymptomatic period, which causes the transmission rate to be higher. Other infectious diseases such as measles have had a higher mortality rate in past. This encouraged the entire population to get vaccinated in order to stop it from spreading.

However, the same thing should be considered when looking at the coronavirus. The short-term symptoms are not that dangerous and usually go away after a few months, however, the long-term effects of the virus have not been shown yet. No one knows if infected individuals will have complications later in life. The severity is still not known to most people, which is why the vaccine should be encouraged to prevent further complications from appearing later on in life.

The major weakness of the coronavirus vaccine is that it is still relatively new and there is little information known about it. There was very little testing done when it was first released, and this alone caused a lot of people to be hesitant to actually receive the vaccine itself. People that are hesitant to receive the vaccine are only putting others at risk of getting the virus. However, maybe these people are right, and the vaccine could be potentially harmful to people that receive it. Even if people that are hesitant are correct and that the vaccine is dangerous, it is still a safer alternative than having an increased chance of getting the coronavirus. If someone contracts the coronavirus, they could be at risk of getting the severe version which could cause dangerous symptoms. These symptoms are far worse than what could possibly occur from an allergic reaction caused by receiving the vaccine. Some of the people that are hesitant to receive the virus may have religious beliefs or reasons to not receive it. These beliefs are only putting others at risk of getting the virus. In order to successfully end the pandemic, everyone needs to either get vaccinated or encourage others to get vaccinated against Covid-19.



The strengths and weaknesses of the Covid-19 vaccine have shown that the vaccine is essential because it can save millions of lives, reduce the total number of cases, and can also reduce health and economic costs. Vaccine hesitancy and misinformation on the virus are the only occurring issues that challenge achieving herd immunity and eradicating the virus altogether. The Covid-19 vaccine has been mobilized and is basically available everywhere in the world, which makes reducing the total number of cases achievable. If the majority of the population were to encourage vaccination and convince people that are hesitant, this virus could be stopped altogether. In order to achieve this goal, people that are hesitant need to be taught that the vaccine is not only beneficial to them but to everyone they encounter. Doing so could change their minds and possibly allow them to finally get the vaccine.



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