

21st century vaccinations

In this essay, I will be stating the advantages and challenges of 21st century vaccinations as I investigate the cases of influenza and malaria and their effects on the population. I will also be evaluating who should be eligible for vaccinations of the modern day due to their health conditions.

A vaccination is a small dosage of a safe and simple virus which is injected into the body so that it produces antibodies to protect itself from infections that it may later encounter. This develops your immune system so that your body becomes more resistant and stronger against a specific infection.

An advantage of vaccinations in the 21st century is that they are widely available, being given to a significant percentage of the population. This increases the effectiveness of 'herd immunity,' the idea that if majority of people are vaccinated and therefore are less likely to spread diseases, less of the population are likely to be infected and therefore reduces the spread of infections. Another advantage of vaccination in the 21st century, is that preventing an illness is more likely to be effective than treating an illness. This is because whilst preventing infections from spreading, the body is fighting diseases using antibodies so that effects of potential infections are not as severe. However, if a person is infected without antibodies to fight diseases, the body is more likely to experience worse side effects from illnesses and treatment would have to be more advanced. If this is the case and a vast quantity of people are exposed to negative symptoms, this would see a significant rise in expenses for health services as the cost of medical treatments would be high. Therefore, if more people are vaccinated this strain of costs and expenses would not be put on health services as more people would be protecting themselves and others.

However, there are also disadvantages to the uses of vaccinations and people being vaccinated in order to prevent diseases. For example, it can take a very long time to create a useful vaccination for the prevention of diseases. This is usually around 5-10 years. Therefore, within this period of time people could be spreading the diseases to a range of different people who may get infected. In addition, not every member of society will be eligible for each vaccination due to their beliefs, safety concerns, age, underlying health conditions and previous medical history. This means that, these people may be unintentionally contributing to the spread of diseases putting more people as well as themselves at risk.

Vaccinations have had a positive impact on widely spread diseases such as influenza and malaria. People who are infected by influenza often suffer from symptoms such as a fever, muscle and body aching and coughing. It is a communicable disease which is passed on by humans which can be prevented by vaccinations to reduce the rate of spreading. Malaria is also a disease which humans can be infected by. It is spread by mosquitos to humans usually in tropical countries. However, it cannot be spread between humans. Influenza and malaria have both had vaccinations produced to protect the public from their effects and symptoms which have seen declines in the amount of people who suffer from them. If vaccinations and safe dosages were not found, the amount of people who are being infected and

suffering from their effects would be much higher with spreading happening more rapidly.

There are many reasons why the rates of vaccinations have increased. Thanks to advances in technology, there have been more vaccinations produced to protect people from the effects and spread of infections. Compared to recent years, people are more aware of the positive effects that come from being vaccinated as the risks that are opposed after being vaccinated are becoming less apparent and less people are getting infected. This could also be because people are becoming more educated on the effects of not being vaccinated and therefore are more willing to be vaccinated. This is contributing to the 'herd immunity' in the fight against diseases.

Overall, this course has allowed me to look deeper into the advantages, disadvantages, and rates of spreading diseases and their effects on the population. I have explored the different views about vaccinations and the ways in which vaccinations have positively impacted us in the 21st century. I would be interested in doing this course at university because I think that it is very interesting, and I would like to look more into different components within medicine in the future.