**Title:** **Ethical analysis on Unmasking guidelines during Covid-19 Pandemic: a students’ perspective**

**Author:**

1. **Ayush Anand (Corresponding Author)**

MBBS Student and Head Students’ Bioethics Wing

Institution: B. P. Koirala Institute of Health Sciences

Address: B. P. Koirala Institute of Health Sciences, Dharan, Nepal

Email Id: [ayushanandjha@gmail.com](mailto:ayushanandjha@gmail.com)

Contact No: +9779824381743

**Acknowledgement: None**

**Funding: None**

**Conflict of Interest: None to declare**

**The manuscript has not been submitted to any other journal.**

**Abstract:**

In the Covid-19 pandemic, we have witnessed many ethical issues around the globe. Recently an Interim Public Health Recommendation for fully vaccinated people in non-healthcare settings has raised several ethical concerns. The aim is to find out the evidence behind CDC’s recommendation and the ethical concerns. The evidence behind the recommendation seems promising, but it fails to adequately address the bioethical principles of social responsibility, protection of vulnerable population and protection of future generations. However, there is still time to address these issues and modify the guidelines accordingly.

**Keywords:** Covid-19, Ethics, Pandemic,Public health, Social Responsibility, Vulnerable Population

**Introduction**

Not long ago, the Centre for Disease Control and Prevention (CDC) recommended wearing masks in public places to reduce the risk of transmission and spread. However, the current situation has shifted dramatically in the last few weeks. On May 13, 2021, the CDC released an Interim Public Health Recommendation for fully vaccinated people in non-healthcare settings (1). This recommendation has drawn much attention from the global community regarding the various ethical issues it raises. According to the recommendation, fully vaccinated people are no longer required to wear a mask or follow physical distancing, except where required by federal, state, local, tribal, or territorial laws, rules, and regulations, including local business and workplace guidance (1). Furthermore, fully vaccinated people are exempt from testing after a known exposure unless they are residents or employees of a correctional or detention facility or a homeless shelter (1).

**Finding evidence behind the decision**

The Food and Drug Administration has approved three vaccines for the United States of America (USA): two m-RNA based (Pfizer- BioNTech, Moderna) and one viral vector-based (Johnson and Johnson’s Janssen) (2). A person is considered fully vaccinated if they are two weeks or more after receiving the second dose of a two-dose series (mRNA vaccines) or two weeks or more after receiving a single-dose vaccine (Janssen) (1).The recommendation by CDC is based on several pieces of evidence from studies conducted throughout the world. These are

* Overall efficacy was comparable across different populations, including elderly and younger adults, people with and without underlying health conditions, and people of different races and ethnicities (3).
* There were no deaths from participants who received a Covid-19 vaccine in the Moderna and Janssen trials. Thus, demonstrating high efficacy against COVID-19 associated death (3).
* In the Moderna trial, the proportion of asymptomatic people who tested positive for SARS-CoV-2 at their second-dose appointment was roughly two-thirds lower among vaccinees than among placebo recipients; similarly, in a subset of trial participants, the efficacy of the Janssen COVID-19 vaccine against asymptomatic seroconversion was 74%, demonstrating that vaccines may also provide protection against asymptomatic infection (3).
* The recommendation can help improve vaccine acceptance (3).

All the vaccine trials were conducted at different time and place and among different variants. So, these findings are not to be compared. Based on these findings, fully vaccinated people were exempt from wearing masks or following physical distancing or testing after a known exposure.

**Ethical aspects involved**

Despite the recommendation being based on scientific evidence, few ethical issues were not given enough attention. Many issues need to be addressed by CDC. These are:

* How do we know who is vaccinated and who is not? Should people need to prove their vaccination status? The fact that there is no standard tool for knowing the vaccination status makes it very confusing.
* There are many states in the USA, and different states/organizations/ workplace have different rules. This creates confusion among the common people. In the CDC recommendation, there seems to be a neglect for the protection of vulnerable populations. For example, A fully vaccinated person was not wearing a mask and ate at a restaurant. Just sometime after, an immunocompromised individual or unvaccinated person sat on the same table, taking necessary precautions. Imagine the same situation with a pregnant woman sitting there. In this case, there will be a risk of severe complications in pregnant women, which may harm the developing foetus. Despite all the awareness programs, people are still not wearing masks properly, and we all know that there is an increased risk of airborne transmission. Even if they wear mask correctly, the efficacy of protection is not 100 per cent. This poses a risk to all others who are not vaccinated or immunocompromised, which also includes children and pregnant women.
* CDC guidelines do not exclude the possibility that few people may transmit the virus even after being fully vaccinated. Moreover, The data regarding how long the protection lasts after being fully vaccinated is still under investigation (1). This can become a huge problem and can lead to another wave of the Covid-19 pandemic.

Social responsibility can be defined as protecting the fundamental rights to the highest attainable level of health as an individual, group and institution, and providing assistance within their means (4). The CDC is a national health public agency in the United States, but its scope extends beyond the borders of the country. The CDC has long been regarded as the guardian of scientific evidence-based information, and its policies have set precedents for the rest of the world to follow. The CDC defends the current recommendation by evidence from a study that if the vaccinated people can resume their day to day activities, it can help improve vaccine acceptance in the community (3). However, the aforementioned unaddressed issues demonstrate a disregard for social responsibility and vulnerable populations.

**A better approach to address the ethical issues**

There are ways in which loopholes in the recommendation can be plugged in and rectified while simultaneously addressing the ethical issues. This can be done by making a more uniform guideline that addresses social responsibility and protects vulnerable people.

* If vaccination status is to be proved before entering any state/ workplace, there is a need to make a standard system for digital health pass. This will help avoid the confusion of having different rules for different places and provide more clarity to the general people.
* Keeping the public’s best interests in mind, necessary precautions should always be taken. This will be in line with the bioethical principle of social responsibility. The more we allow the spread of the virus, the more mutant variants will be created. Even a single case can lead to another outbreak in significantly less time and can overburden the healthcare system.
* Following the precaution at all times can help protect even the most vulnerable population (non-vaccinated, immunocompromised, children and pregnant women).

**Conclusion**

Evidence from trials suggests that Covid-19 vaccines, which are currently approved in the USA, are efficacious against SARS-CoV-2 infections, including asymptomatic infection, symptomatic disease, severe disease, and death. Furthermore, the risk of transmission is likely to be significantly reduced in vaccinated people. Except for reduced antibody neutralization and efficacy B.1.351 variant, preliminary evidence suggests that vaccines will be effective against emerging variants. Findings from trials indicate that vaccines can significantly reduce disease burden by preventing illness in fully vaccinated people and interrupting disease transmission chains. However, evidence also suggests that the risks of SARS-CoV-2 infection in fully vaccinated people cannot be eliminated in the context of the virus’s continued widespread community transmission. Vaccinated individuals could still become infected and spread the virus to others. The recommendation by CDC violates the bioethical principle of social responsibility and protection of the vulnerable. There are ways in which loopholes in the recommendation can be plugged in and rectified to make it more uniform, acceptable and in line with the bioethical principles. This can be done by having a uniform digital health pass and following precautionary measures at all times.

**References**

1. Interim Public Health Recommendations for Fully Vaccinated People | CDC [Internet]. Centers for Disease Control and Prevention. 2021 [cited 2021 May 26]. Available from: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated-guidance.html

2. Learn More About COVID-19 Vaccines From the FDA | FDA [Internet]. Food and Drug Administration. 2021 [cited 2021 May 26]. Available from: https://www.fda.gov/consumers/consumer-updates/learn-more-about-covid-19-vaccines-fda

3. Scientific Brief: SARS-CoV-2 Transmission | CDC [Internet]. Centers for Disease Control and Prevention. 2021 [cited 2021 May 24]. Available from: https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/sars-cov-2-transmission.html

4. Have A. M. J. ten H, Jean S. M. THE UNESCO UNIVERSAL DECLARATION ON BIOETHICS AND HUMAN RIGHTS BACKGROUND, PRINCIPLES AND APPLICATION. United Nations Educational, Scientific and Cultural Organization; 2009. 1–352 p.