May I Please See your Proof of Vaccination?: Ethical Decision-Making About Vaccination Mandates

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[Abstract] The COVID-19 pandemic caused a global restriction on freedom of movement. Travel and public life have been affected and countries are still trying to find ethical solutions to protect the public from the virus without harsh restrictions on freedom and privacy, and without compulsive vaccination campaigns. As vaccination numbers are rising, ethical questions about restricting freedoms for the unvaccinated and granting freedoms for the vaccinated arise. This study examines these developing issues by applying the Markkula ethical decision-making model, and evaluates alternative decision options such as the Utilitarian, Rights, Justice, Common Good, and Virtue approaches. The results indicate that the only ethical option is a patchwork of regulations depending on local current pandemic status. Vaccination numbers can only be elevated ethically through persuasive outreach, information, and appeals to the protective conscience of communities.

[Keywords] Covid-19, vaccinations, compulsive vaccination campaigns, ethical decision-making

"May I please see your proof of vaccination?" This might be a question that will soon be asked before we are allowed to engage in any of the public activities which have been cancelled or restricted in the past year. Since the outbreak of the Covid 19 pandemic in Wuhan, China, public life has changed fundamentally. The highly contagious SARS variant spread over the whole globe within only a few months and still has its grip on our daily lives. To date, the virus has a global death toll of over 3.5 million with over 168 million infections worldwide (www.covid19.who.int). Containment measures to "flatten the curve" have been imposed in most countries including social distancing, mask mandates, hand hygiene, and lockdowns or curfews. Many events have been either cancelled, postponed, or took place without live audiences. Restrictions to personal freedom of movement in the form of travel limitations are still in effect. Worldwide, economies are struggling to compensate for the loss of productivity resulting from these measures.

The devastating global effects caused a generous outpour of public funds to the pharmaceutical industry to find a vaccine to control the pandemic. In record time, companies like Pfizer/Biontech, Moderna, Astra Zeneca, and Johnson & Johnson developed vaccines based on different medical approaches and varying efficiencies. Developments in non-Western countries like Russia (Sputnik V) and China soon followed, but these are still facing scrutiny of approval in the West. Most epidemiologists agree that the only way out of the pandemic is a massive global vaccination campaign. The goal is to reach a 70% vaccination rate, which most experts rate as the threshold for so-called herd immunity. This would provide ample protection and could break the rapid spread of the disease and significantly minimize the possibility of virus mutation into new variants, which the developed vaccines may not be able to contain. Similar campaigns of such global magnitude were launched to eradicate Smallpox and Polio in the 20th century and have saved millions of lives. Therefore, it is worth taking a close look at what made these campaigns so successful and how we can apply lessons from the past to the Covid 19 pandemic.

It was a long way from the early discovery of a smallpox inoculation at the turn of the 19th century by the English doctor Edward Jenner to widespread vaccinations almost a hundred years later (www.cdc.gov/smallpox/history). In 1902, Massachusetts made smallpox vaccinations mandatory and imposed a $5 fine for non-compliance. The refusal and following legal battle of Henning Jacobsen led to

the landmark case of *Jacobsen v. Massachusetts*, which was decided in 1905 by the US Supreme Court. The court delivered a 7-2 vote to uphold the Massachusetts' law (Colgrove & Bayer, 2005). The court argued:

> *[T]he liberty secured by the Constitution of the United States to every person within its jurisdiction does not import an absolute right in each person to be, at all times and in all circumstances, wholly freed from restraint. There are manifold restraints to which every person is necessarily subject for the common good. On any other basis organized society could not exist with safety to its members. Jacobsen v Massachusetts, 197 US 11 (1905)*

This landmark ruling served as a precedent for restrictive measures such as quarantines, vaccinations, and other public health guidelines and states swiftly enforced compulsory vaccinations. It was in 1922 when the court ruled in *Zucht v King* that vaccinations became mandatory for public school children, which significantly helped eradicating smallpox in the US by 1952 (Colgrove & Bayer, 2005).

Today's public health approach is more based on persuasion than coercion. Persuasion worked fine as long as people believed in the dangers of diseases such as Tetanus, Diphtheria, or Measles and trusted the medical experts and the developed vaccines (Colgrove & Bayer, 2005; Gostin et al., 2020). Even for established vaccines like the Measles immunization, vaccination hesitancy is on the rise and the quickly approved Covid 19 vaccines face even tougher public scrutiny. Traditionally, African-American, Latinx, and Native American populations have been distrusting of public health measures because of racial bias and involuntary medical experimentation in the past (Ferdinand, 2021). The current Covid 19 pandemic is also facing another new adversary: the echo chambers of anti-vaxxers on social media and other non-scientific internet sources. Objections include religious reasons, conspiracy theories, skepticism about vaccine safety/efficacy, and human rights violations (Attwell et al., 2021; Glasper, 2021; Khawaja & Moukaddam, 2021; Türk & Özgüven, 2021). It is estimated that over a quarter of the US population will refuse the vaccination and even more people are still undecided (Attwell et al., 2021), whereas other studies predict vaccine acceptance of up to 80% (Shmueli, 2021). In some countries like Germany, attitudes towards compulsory vaccinations reach a surprising almost 50% approval (Graeber & Schröder, 2021), while in the UK, the Royal College of Nursing rejected compulsory vaccinations citing human rights concerns (Glasper, 2021).

Considering the high level of skepticism, strict enforcement of mandatory vaccinations is not a viable option. Such coercive measures would only exacerbate the reach of conspiracy theories and would not be helpful to reach herd immunity (Prieto Curiel & Gonzales Ramirez, 2021).

As immunization rates increase and societies are slowly opening up again, the question that results from the described controversy is how should we determine what rights and freedoms do we grant vaccinated people as opposed to the unvaccinated? The resulting decision could significantly impact freedom of movement of those who are not vaccinated, potentially creating a two-class society with all its negative sociological and political consequences (Roth & Sparrow, 2020). The recommendation issued on May 13, 2021, by CDC Director Dr. Rochelle Walensky already allows fully vaccinated people to take part in indoor public activities without wearing a mask (https://www.pbs.org/newshour/show/cdc-director-on-mask-guidance-for-the-fully-vaccinated). Can vaccinations be made mandatory for certain activities where social distancing is not an option such as in air travel, citing safety concerns for passengers? One issue associated with this is the problem for door-keeping staff such as hostesses in restaurants or airline employees to verify who is vaccinated or not. While experts argue that vaccination documentation is possible without violating peoples' rights to medical privacy (Gostin, Cohen & Shaw, 2021), questions about how to handle the multitude of non-uniform immunization passports from different states and countries remain.

Digital Health Passports as used in Israel seem to be favored in many countries but would leave out parts of the population who do not have a digital device to carry around with them. The ethical decision

that needs to be made is whether vaccinated people should be granted freedoms that the unvaccinated are excluded from, or should they also have to adhere to the restrictions that still apply to the unvaccinated because of just and equal treatment of all?

The best way to frame the decision is to apply an ethical decision-making model. The framework for ethical decision-making of the Markkula Center for Applied Ethics at Santa Clara University provides a suitable tool to make this decision (*see Figure 1*). The model consists of 5 main elements:

- Recognize an ethical issue
- Get the facts
- Evaluate alternative actions
- Make a decision and test it
- Act and reflect on the outcome

Recognize the Ethical Issue

A decision on this issue would affect both the vaccinated and the unvaccinated population. If additional rights and freedoms are granted to the fully vaccinated, they would enjoy freedoms that the unvaccinated do not. Vice versa, the unvaccinated would face restrictions solely based on their vaccination status. The ethical issue is to find a balance between the right to equal freedoms for all and the safety of the public since unvaccinated people might still pose a risk to other unvaccinated people by spreading the virus further. The decision is weighing two bad consequences against each other, since neither the restrictions on personal freedoms for the fully vaccinated, nor the unequal restrictions on the unvaccinated are desirable options.

The questions of legality and efficiency revert back to the decision of the US Supreme Court on *Jacobsen v Massachusetts* and compulsory vaccinations for public school attendance. Mandating vaccinations might be the most efficient way to eradicate the virus but would also affect the rights of skeptics to equal treatment and freedoms and their right to choose whether to get vaccinated or not.

Get the Facts

Getting all the relevant facts for this issue is not possible, since the pandemic is still in progress, and it is difficult to predict how the global situation will develop. To date, it remains unknown if new variants of the virus will evolve that are resistant to the available vaccines, which would require new approaches. Nevertheless, a preliminary decision on how to cope with the issue needs to be made to provide clarity and direction to the public. Almost all of the global population is impacted by the pandemic and the restrictions that are currently implemented to safeguard public health. The essence of the problem is whether individual rights for the vaccinated outweigh the risk for the unvaccinated. In this context, it is important to realize that not all unvaccinated people are refusers. Children and those who cannot be vaccinated due to other underlying medical conditions (e.g., chemotherapy patients), as well as the vast majority of the global population, who have not had an opportunity to get immunized, cannot simply be seen as collateral in this discussion. The available options range from granting all pre-pandemic rights to the vaccinated to maintaining the current restrictions for everybody. An alternative middle ground would be to patchwork regulations, meaning that certain freedoms such as mask requirements could be lifted for the vaccinated upon presenting proof of vaccination, but other measures would remain in place. Airlines, for example, could still maintain a mask requirement to protect all passengers equally, regardless of their individual vaccination status (Binkley & Kemp, 2021).

Evaluate Alternative Actions

Utilitarian Approach: removing all restrictions to grant rights to the vaccinated would clearly do the most harm because it would leave the unvaccinated without protection. Keeping all the current restrictions in place would significantly restrict the rights of the fully vaccinated. Maintaining some restrictions in

certain high-risk settings would keep the unvaccinated protected but would allow for an ease of restrictions for the fully vaccinated and is therefore the most utilitarian option.

Rights Approach: there are two groups with conflicting rights in this situation. The fully vaccinated want their restrictions to be eased, but this would require complicated control mechanisms to verify vaccination status. The unvaccinated on the other hand also have a stake. Especially those who want a vaccination but haven't had a chance to get one yet (which is the majority of the global population) still need to be protected. Furthermore, maintaining some protective measures could keep the virus from spreading faster and would prevent further, more dangerous mutations.

Justice Approach: equal or proportional treatment is not possible, because the vaccinated are protected, the unvaccinated are not. These two opposing qualities of the groups are impossible to reconcile under these circumstances. Easing 40% of restrictions because 40% of the population is vaccinated would not lower the risk of infection and is therefore impractical.

Common Good Approach: the community would be best served by keeping all current restrictions in place, but this would unfairly restrict the fully vaccinated population. Therefore, a nuanced approach would be needed to best serve the common good. Keeping some restrictions in high-risk settings and maintaining the current recommendations for the unvaccinated would protect that group, while the fully vaccinated could enjoy less restrictions in certain settings, but would have to adhere to limitations in certain settings to maintain a level of protection for the unvaccinated. This would best serve the common good, which is to protect the population, but also to ease the restrictions on freedoms.

Virtue Approach: to act as the person that I want to be (or that I want society to act as), is to make a decision that does the best and the least harm, but also best serves the common good. Since a decision solely in favor of one side or the other would significantly disadvantage one of them, the most virtue-based option for me would be to maintain restrictions such as mask mandates in high-risk situations to protect the unvaccinated, while easing restrictions in lower risk situations for the fully vaccinated until herd immunity is achieved.

Make a Decision and Test It

A decision on rights granted to the fully vaccinated and maintaining restrictions for the unvaccinated has to be based on the best overall outcome. Maintaining certain restrictions in highrisk situations while easing them for the fully vaccinated in low-risk settings would not only balance the least harm and the most good, but also best serve the overall common good. Despite the residual risk that is involved by anti-vaxxers potentially falsifying their immunization status, this approach holds the most gains for both groups involved and also provides an incentive for vaccination skeptics to get immunized to further work towards the common good of containing the pandemic globally.

Act and Reflect on the Outcome

The best way to implement this decision would be to develop a reliable and simple way to check people's vaccination records without other medical information to protect privacy rights. The option of a digital health passport is currently being discussed, but other fake-proof options for people without digital devices need to be developed to maintain a level of equality. Both options of documentation need to be easily verified by lay persons in gate-keeping roles at public places like restaurants, theaters and the like. In certain situations, where distancing is not an option and both vaccinated and unvaccinated people are in close proximity, the safest option is to keep restrictions in place to maintain a maximum level of protection for everybody. Local flare-ups of infection hot spots would also still have to be subject to local decision-making based on the current local situation.

The Markkula model works best for this decision because it provides enough possibilities to apply multiple ethical perspectives. The complexity of the issue is far reaching and affects millions of people. Therefore, a nuanced approach is needed to find the best decision option. The situation is also still

developing, and the decision-making model has to be flexible enough to accommodate any changes. This is particularly important since evaluating the outcome options is solely based on assumptions. The global character of the Covid 19 pandemic makes any approaches to a solution uncharted territory. We can only estimate options based on past pandemics which were not as widespread, did not affect as many people, and did not have such a devastating economic impact.

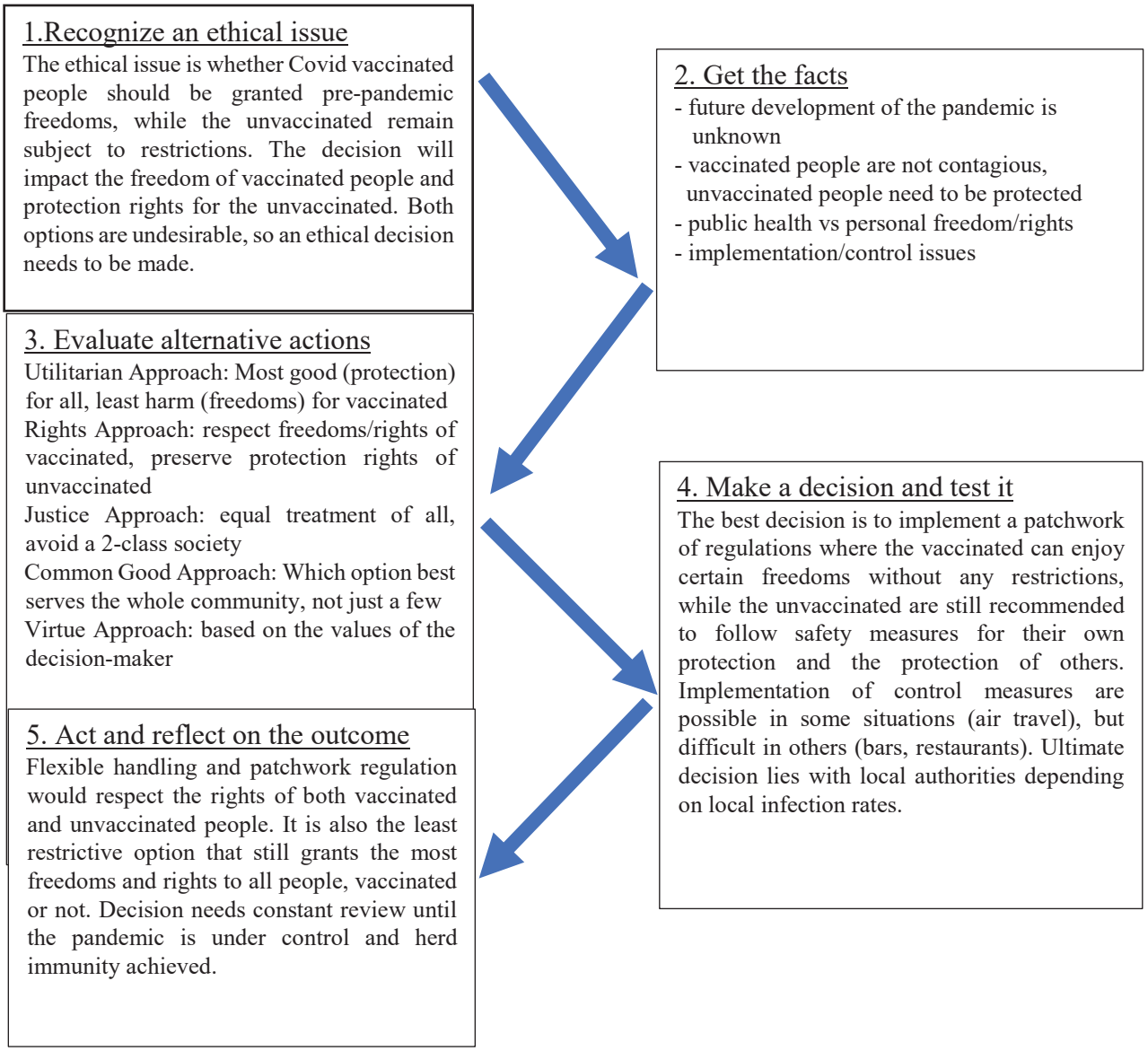
Other decision options to mitigate the issue are a) keeping all current restrictions in place for both vaccinated and unvaccinated people, b) removing all safety restrictions for the vaccinated and relying on the unvaccinated to follow voluntary safety recommendations, and c) develop a strict and reliable control process to verify every individual's immunization status suitable for lay persons in everyday situations. Testing these options in the Markkula model, option A would certainly provide the most effective protection for all (common good approach) and do the most good (utilitarian approach), but would fail the least harm aspect. Keeping the restrictions in place would unfairly restrict the rights of the growing numbers of the fully vaccinated population. Option B would also violate the utilitarian approach of the least harm, as vaccination refusers may not adhere to safety recommendations and could inadvertently infect vulnerable unvaccinated people, who may not be able to get vaccinated for underlying medical issues. This scenario would also not serve the common good as a whole and is therefore an undesirable option.

Option C would fulfill most ethical perspectives with exception of the equal treatment of people according to the justice approach. Considering the life and death consequences, equal treatment of all is highly inadequate to apply to the Covid pandemic. Nevertheless, this option fails the last step of the Markkula model that asks for implementation with the "most care and concerns to all the stakeholders." People may perceive a strict enforcement of permanent immunization verification as too invasive. It is also unrealistic to expect people working in gate-keeping functions at restaurants, bars and movie theaters to reliably verify immunization status of everyone who walks through the door. National or international standards for counterfeit-proof documentation have not been developed yet and digital options such as the digital health pass used in Israel and discussed in Europe would discriminate against people without access to, or knowledge how to use, portable digital devices such as many senior citizens.

Based on the above concerns regarding alternative options and the application of the Markkula model, the only option that does the most good, least harm, and serves the common good without unjustly disadvantaging parts of the population (whether vaccinated or not), is a compromise that would create a patchwork of regulations for specific settings, situations and locales. Localities with local outbreaks would have to reimpose strict safety measures such as mask wearing and lockdowns if infection numbers rise again. Certain public transit settings should still require masks to protect those who are unvaccinated. Airlines, which already restrict some freedoms such as smoking or using the lavatories during certain phases of a flight (Binkley & Kemp, 2021), should require documented proof of vaccination prior to boarding and/or maintain a mask mandate. This would protect passengers and also allow airlines to operate profitably, since implementing social distancing at 50% capacity is economically impossible.

For all other settings, such as bars, restaurants, movie theaters, and gyms, restrictions could be dropped and handled according to the honor principle. Persuading those who are unvaccinated, whether for medical reasons or conviction, to uphold safety measures on a voluntary basis appears to be the only way to not restrict freedoms and grant the right of protection to those who are vulnerable to the virus. This requires a massive information campaign and outreach to community leaders to build internal public peer pressure and a protective conscience towards the population as a whole. Misinformation campaigns by non- and pseudo-scientific sources need to be debunked whenever possible. Even though a decision for such a patchwork approach is far from perfect, it would still grant the most rights to the vaccinated, protect the unvaccinated and best serve the common good. The key to success is to create a sense of individual responsibility for the common good of the community, the country and the world as a whole. Without that, any efforts to combat the pandemic are futile and freedoms granted would only be temporary if the virus can further mutate into resistant variants and the cycle of outbreaks and restrictions would continue indefinitely.

Figure 1
Markkula Decision-making Model



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