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Reconsidering Vaccine Mandate Ethics and Exemptions

With the outbreak of COVID-19, people all over the world are struggling to adjust to these changing times. Employees juggle working a job and taking care of their families simultaneously from the newfound discomfort of their own homes, communities became subject to lockdowns and curfews, and people were unable to leave their homes without wearing masks. These unprecedented circumstances also exacerbated previously unconsidered moral dilemmas, the most prominent of which is regarding the COVID-19 vaccine and its necessity. Ever since its public release, there has been debate between those who believe vaccines should be required and those who believe that mandating them is an infringement on one's freedom. However, as historical evidence has shown, vaccine mandates have proven effective in protecting the public from infections. Therefore, vaccine mandate decisions across the federal and state governments based on ethics should better reflect historical and current data, especially regarding exemptions of any kind.

Though the ethics of vaccine mandates is a common subject for debate, its impact is undeniable through its substantial record for reducing infectious diseases. Kevin Malone and Alan Hinman's CDC article "Vaccination Mandates: The Public Health Imperative and Individual Rights" explores this topic by mentioning Garrett Hardin's essay "Tragedy of the Commons". Hardin's essay details the well-known analogy of cattle overgrazing behavior and demise as a result of the farmer's decision. In short, the decisions of the few farmers led to the failure of the herd in the name of maximizing gain; this concept can be extended to vaccines and

human communities, where the best interest of the community's health and safety may clash with individual desires. Malone and Hinman observed this phenomenon particularly recently in the COVID-19 crisis, where individuals have refused to wear masks or get vaccinated to protect themselves and others. It is also an example of the concept of moral subjectivity, where moral decisions are made on an individual level and true if they believe it to be. Unfortunately, all individuals have justifications for their decisions, regardless if they put the public at risk. This selfish mentality has been observed to slowly become more pervasive as incidents lessen, though it does not actually indicate less long term risk. As a result, legal requirements have thus been implemented to mandate particular vaccinations to prevent disease resurgences.

One potential reason for this aversion to vaccinations is a commonly overlooked fact about vaccines: they provide both individual and community protection, as many diseases are contagious. For example, it can be said that a social contract should exist between parents to vaccinate their children to protect them all. However, it is often not the case as many parents cite various reasons to refuse vaccinations for their children. This is one instance of moral psychology, as some parents recognize that vaccinating themselves and their children is the acceptable choice, while others determined that choosing to do so would not be. Regardless, the introduction of vaccines has greatly affected the impact of infectious diseases, a significant example being the government recognizing the severity of measles transmission in schools in the 1960s. By the early 1970s, states with vaccination laws for measles had 40-51% lower incidence rates than those that did not (Malone, Hinman). The government's proactivity and results is an example of technological determinism, as it set a precedent for society's values and structure. In the future, vaccinations would become far more common and accepted, despite some still opposing its administration. The U.S. Supreme Court cases *Jacobson v. Massachusetts*, *Zucht v.*

King, and *Prince v. Massachusetts* highlight this conflict, as well as act as an example of utilitarianism (Malone, Hinman). For Jacobson's case, personal choice was ruled out as a basis for exemption, while religion and parenthood claims were dismissed as well in the latter two. In all of the cases, the court's decision to rule against the plaintiffs was based on the concept of utilitarianism, where preserving the safety of the public was concluded to generate the most good for the most people.

Ethical arguments both for and against vaccine mandates incorporate multiple factors, most importantly those that are at high risk of infection. Rachel Gur-Arie and others describe this discussion with a worst-case scenario in their article "No Jab, No Job? Ethical Issues in Mandatory Covid-19 Vaccination of Healthcare Personnel". Specifically, mandating the COVID-19 vaccine could increase uptake, but risks damaging the trust between healthcare personnel (HCP) and their institutions. Therefore, decisions must address HCP concerns and include the institutional issues that put them at risk aside from the disease itself. Though they are a priority in vaccination efforts, as it would enable them to continue to care for patients while minimizing risk of transmission to them, there is documented and prevalent vaccine hesitancy among HCP for varying reasons (Gur-Arie, et al.). Safety and efficacy concerns are common, which are reasonable given the novelty of the COVID-19 vaccines, though this reluctance has been recorded for seasonal influenza vaccinations for decades. HCP vaccine hesitancy by itself is a prime example of a fallacy, as their animosity is illogical given their medical background. However, when it is considered along with the institutional issues such as lackluster protective equipment for when dealing with COVID-19 patients, which contributes to already extreme systemic failure, vaccine mandate viability becomes more complex and difficult to enforce without ramifications (Gur-Arie, et al.).

As a result, ethical arguments for or against COVID-19 vaccine mandates should consider the policy level at which they are being implemented. Though there are certainly precedents for a mandate of this nature, doubt regarding the long-term efficacy and safety is not without merit as there is virtually no sufficiently relevant historical data to guarantee safety. A proper Code of Conduct must be thoroughly exercised by those that research and develop the vaccines, particularly regarding the moral obligations of these professionals. In lieu of this, there must be ethical questions in the design of this technology; without ethical sensitivity at the beginning of the vaccine development process, certain values such as safety and long-term efficacy might be compromised. In order for the vaccine to reach a stage where it can be properly mandated, it must follow all technical codes for sustainability, health, safety, and social consequences during testing, manufacturing, and administration.

While there has historically been successful vaccine mandates, it is still a multifaceted decision process and relies heavily on proper research and trustworthy data. Lawrence Gostin explains the precise requirements and consequences of not following them in his article “Mandating Covid-19 Vaccines-Ethical and Legal Considerations”, emphasizing that “purely mandating from [Emergency Use Authorization] would be a poor decision”, due to its lower safety and efficacy requirements. If a vaccine were to be released at this stage and mandated, it would thus likely have worse uptake and raise more doubts, since it seems like a prototype. Instead, the goal should be a Biologics License Application (BLA) approval with higher standards, though they would not truly be warranted until the FDA licenses a vaccine that fulfills all safety and efficacy requirements among the appropriate demographics. To achieve this, researchers should employ engineering ethics whenever possible in order to not cause harm, cut corners, and maintain their code of ethics. Without constant consideration of ethics at all stages

of the development process, even post-release, irrevocable backlash could occur and prevent any progress in reducing a pandemic.

Another major component for consideration would be whether and when to actually implement a vaccine mandate, specifically the legal aspects and their legitimacy. Carmel Shachar and Dorit Rubinstein Reiss state in their article “When Are Vaccine Mandates Appropriate?” from the Journal of Ethics that certain approaches would be possible if proven to “preserve social stability, government trust... and diminish disease severity.” It is important to recognize that to accomplish these goals, the state can act to protect persons other than the affected individual, even if at the cost of limiting individual freedoms. The U.S., like many other countries, has a long history of utilizing school vaccination mandates to increase vaccination rates, which has been consistently upheld in court as mentioned above; however, federal and state governments are understandably more hesitant to require new and experimental vaccines with less data. Nevertheless, we have seen widespread emergency administration of nascent vaccines due to imminent public threats like today with COVID-19, such as the polio vaccine in 1954 (Shachar, Reiss). Unfortunately, though incentives such as criminal sanctions or limitations on liberty to enforce mandates may work for certain groups, such as religious objectors, it may cause another group to object further. These opposition interrelations must be considered even more when in regards to experimental vaccines, such as COVID-19’s. Therefore, in order for a mandate to be properly timed and enforced, context and setup must be thorough such as through proper education.

Vaccination efforts have been crucial in the prevention of many diseases in the U.S. and elsewhere, and there is substantial evidence to support its efficacy. Provided all facets of morality and ethics in engineering are considered, it is possible to conclude that vaccine mandates are

viable and desirable for reducing disease outbreak. Since government mandated vaccines have historically saved many lives, placing one now would likely have the same effect. All demographics must be factored into the timing and enforcement of the decision, whether they are children, HCP, or everyday employees, but policies regarding exemptions should be adjusted to be stricter and more similar to past approaches and mandates. In addition, due to the general advance of medical technology across the board, greater care for at-risk individuals should be exercised for smoother administration and minimizing backlash. This is especially prominent for HCP, as their hesitancy is rooted in the systemic failures of their institutions. By implementing these changes to how we approach vaccine mandates, future populations would be less in danger of a pandemic like COVID-19.

Bibliography

1. Malone, Kevin M., and Alan R. Hinman. *Chapter 13 - Vaccination Mandates: The Public Health ...* CDC, https://www.cdc.gov/vaccines/imz-managers/guides-pubs/downloads/vacc_mandates_chp13.pdf.
2. Gur-Arie, Rachel, et al. "No Jab, No Job? Ethical Issues in Mandatory Covid-19 Vaccination of Healthcare Personnel." *BMJ Global Health*, BMJ Publishing Group, 17 Feb. 2021, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7893205/>.
3. Lawrence O. Gostin, JD. "Mandating Covid-19 Vaccines-Ethical and Legal Considerations." *JAMA*, JAMA Network, 9 Feb. 2021, <https://jamanetwork.com/journals/jama/fullarticle/2774712>.
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