#### The United States Should Consider Compulsory SARS-CoV-2 Vaccinations

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# ABSTRACT

Several laboratories across a multitude of countries have begun to develop a vaccine<sup>1</sup> for SARS-CoV-2 with anticipated public arrival as early as late 2020. However, a vaccine is not effective at the population level if only a few decide to receive it. Herd immunity (or "herd protection") is the phenomenon that occurs when a sufficient proportion of a population is immune to a virus (through natural exposure or vaccination).

Keywords: COVID-19, vaccine, mandatory vaccination

## INTRODUCTION

As we face this unprecedented epidemic, researchers are racing to develop a cure and find ways to prevent more infections in the future. Yet, with so much uncertainty about the future of this virus (i.e. will we experience another influx of cases? Will it disappear over the summer and return come autumn?), the current absence of an effective therapy,<sup>2</sup> and limited research on natural immunity to the disease through direct exposure,<sup>3</sup> it seems the only certainty is that a vaccine could be a solution. Several laboratories across a multitude of countries have begun to develop a vaccine<sup>4</sup> for SARS-CoV-2 with anticipated public arrival as early as late 2020. However, a vaccine is not effective at the population level if only a few decide to receive it. Herd immunity (or "herd protection") is the phenomenon that occurs when a sufficient proportion of a population is immune to a virus (through natural exposure or vaccination). This decreases the amount and/or duration of pathogen shedding, thereby reducing the spread of a pathogen to susceptible individuals.<sup>5</sup> Herd immunity is obtained most easily and safely through widespread vaccination, and it is essential to protecting the most vulnerable. This includes individuals of lower socioeconomic status who are more likely to have high-risk comorbidities, the immunocompromised, the elderly, and those with disabilities. The question then arises: should we consider mandating compulsory vaccinations for SARS-COV-2? Is this the only way to ensure the virus does not return (at least not in a way that will overwhelm our medical system and disproportionately harm the most vulnerable)?

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### ANALYSIS

The prospect of compulsory vaccinations has an arduous history in the United States dating back to the 1905 court case Jacobson v. Massachusetts when, in the face of the smallpox epidemic, Henning Jacobson refused vaccination, arguing that the law requiring all adults vaccinate or pay a fine was an infringement on his autonomy and "an assault on his person"<sup>6</sup> (he was fined five dollars after the Court ruled that no person was ever forced into compliance).<sup>7</sup> In the modern era, the conversation has largely shifted its focus toward childhood vaccinations. A combination of poorly conducted research,<sup>8</sup> sensational media coverage, safety concerns, desire for additional education, and philosophical opinions about "natural" immunity have all been cited as reasons that people refuse to vaccinate.<sup>9</sup> As a result, many parents have claimed exemptions to vaccinations, and consequently, outbreaks of preventable diseases such as measles have struck several communities across the country.<sup>10</sup> Now, this is not to say that these fears are entirely unwarranted. Although most adverse reactions to vaccinations are quite mild, there are some known, extremely rare potential side effects to some common childhood vaccinations.<sup>11</sup> These, however, are frequently mitigated through proper medical screening and exemption. Furthermore, rigorous research on the efficacy and safety of the SARS-CoV-2 vaccine prior to FDA approval will help to prevent our most vulnerable populations from experiencing adverse effects. Government control over vaccine research and use of the National Vaccine Injury Compensation Program (VICP)<sup>12</sup> can ensure potential adverse outcomes are limited and properly addressed. Furthermore, educational resources and proper use of the media can help establish trust in concerned populations. The greater philosophical discussion of the value of personal autonomy in the U.S., however, is much more complicated.

The case for autonomy may be summarized as the right to choose for oneself. Culturally and constitutionally, it is considered to be a fundamental right in the U.S., and Supreme Court Cases have ruled in favor of autonomy and the right to bodily integrity time and time again, as demonstrated in *Roe v. Wade* (1973)<sup>13</sup> and *Griswold v. Connecticut* (1965).<sup>14</sup> There is a basic philosophy of autonomy: any person with capacity and competence has the right to choose what they deem to be in their own best interests, and a right to protect their body from unwanted intrusion or harm. A competent patient cannot be forced to undergo surgery, nor can they be held against their will in the emergency room, nor forced to receive a blood transfusion if they are a Jehovah's Witness. There is, however, a second part to this philosophy: an autonomous decision may not pose significant risk or harm to another person. Consequently, the case for personal autonomy and bodily integrity in the context of highly infectious diseases is weak.

Unlike many other personal medical decisions (e.g. discontinuing treatment for a terminal cancer, signing a DNR order, or refusing a transplant), refusing to vaccinate is not a decision that affects the patient independently. Instead, it poses a threat to any community member who is unable to vaccinate for legitimate medical purposes. Moreover, I argue that a mandatory vaccination program does not significantly inhibit the autonomy of any normally healthy person (where the risk of harm from vaccination is incredibly low), but rather it acts to protect those who are not already in good health (where the risk of infection is significantly high). A compulsory vaccination program would serve as a viable public health effort to protect the most vulnerable groups. In the case of COVID-19, this includes those who are immunocompromised, diabetic, elderly, obese, or with chronic heart or lung disease.<sup>15</sup> Vaccination should therefore be considered a moral responsibility of the healthy. In essence, the argument for autonomy simply does not carry enough significance when weighed against community-level beneficence.

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This novel coronavirus also raises an entirely new dilemma not often faced with other infectious diseases – scarcity of resources. For those who become extremely ill, treating this disease requires invasive, expensive, and scarce medical resources. Many of the patients admitted to the hospital are placed on ventilators and their healthcare providers require copious amounts of personal protective equipment. As many states reach their projected peak of new cases, many hospitals continue to teeter on the edge of maximum capacity. Hospital ethics committees face the real possibility of deciding to withdraw or withhold care to preserve resources for those with a higher chance of survival.<sup>16</sup> This has raised alarms for disability rights groups,<sup>17</sup> as should a purely utilitarian approach be applied to resource allocation, people with many cognitive and physical disabilities may be denied treatment despite the fact that it violates the American with Disabilities Act.<sup>18</sup>

As we look toward the future of this pandemic, it is unclear if hospitals will face another spike of cases come autumn that will, once again, stretch resources and place many lives at risk. I argue that we have a moral duty to do what we can to prevent this ethical quandary from occurring as part of an effort to protect those with high-risk comorbidities and disabilities. These individuals deserve equal moral value under the utilitarian practices that guide triage decisions. This is most easily realized through a compulsory vaccination program for SARS-CoV-2.

There is a caveat, however. Should a mandatory vaccination program be implemented, cost should not represent a limitation. This virus already disproportionately affects those of lower socioeconomic status.<sup>19</sup> Populations already at increased risk of contracting the virus should not be denied access to the vaccine due to cost. If vaccination becomes mandatory, these populations should not incur the burden of cost. For such a system to be considered just, the U.S. government must be willing to cover the cost of SARS-CoV-2 vaccination for everyone.

#### CONCLUSION

We cannot be certain what the next several months will look like. This novel coronavirus may fade over the summer, or it may return in the fall, and we may experience another spike in cases. Nevertheless, in the absence of effective therapeutic measures, and assuming a vaccine becomes available, the risk of repeating our current situation is too high and we must consider mandatory vaccination as a real possibility. Personal liberty does not give one the right to endanger another person, and people have an individual right to be protected from others who may place them in danger. Even a culture that prides itself on individual choice and personal liberty should be willing to see the crucial need for such measures.

It is thought that younger generations are unwilling to trust vaccines because they have not experienced outbreaks such as smallpox or polio, and therefore do not believe vaccines are an effective or necessary tool in preventing disease. Perhaps this pandemic will be the experience that motivates them to reconsider and reappreciate the role of vaccination in our lives. With that in mind, we can begin to ask again, is the ongoing pandemic the catalyst we needed for compulsory vaccinations to enter the forefront of health policy discourse?

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<sup>14</sup> Griswold v. Connecticut, 381 U.S. 479 (1965)

<sup>15</sup> Shikha Garg, Lindsay Kim, Michael Whitaker, Alissa O'Halloran, Charisse Cummings, Rachel Holstein, Mila Prill, et al. "Hospitalization Rates and Characteristics of Patients Hospitalized with Laboratory-Confirmed Coronavirus Disease 2019 – COVID-NET, 14 States, March 1-30, 2020" *MMWR Morb Mortal Wkly Rep* 69, (April 8, 2020). <u>https://dx.doi.org/10.15585/mmwr.mm6915e3</u>

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