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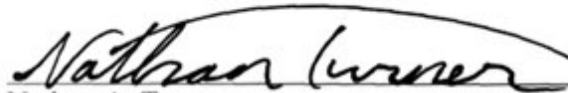
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Justification and Compliance: Public Health Ethics in a Post-COVID America

By

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An Undergraduate Thesis Submitted in Partial Fulfillment
of the Requirements for the
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Introduction

The COVID-19 pandemic wrought devastation upon the United States. In its three years of activity, COVID-19 was consistently the third leading cause of death in the United States between 2020 and 2022. It was outpaced by heart disease and cancer alone with accidents trailing the virus as the next leading cause of death during each year.¹ On March 10, 2023, the Johns Hopkins Coronavirus Resource Center ceased tracking data after three years. Its final listed death total sits at 1,123,836 lives lost.² These statistics are not just numbers, they represent a colossal number of human lives. In addition to death, those who contracted COVID-19 and survived are at risk for developing what has been termed ‘long COVID.’ This phenomena is estimated to have affected approximately 16 million working-age Americans.³ Long COVID expresses itself a variety of ways. The most common effects are ongoing fatigue, fever, and respiratory issues. It is also associated with cardiovascular and neurological conditions.⁴ Essentially, COVID-19 has been responsible for both horribly profuse loss of life as well as the imposition of a wide range of long-term health burdens upon those who contract it. With over 100,000,000 Americans having contracted the disease, the data pertaining specifically to working-age Americans only provides a low range for the prevalence of long-COVID.⁵

¹ Jared Ortaliza, Krutika Amin, and Cynthia Cox, “COVID-19 leading cause of death ranking,” Peterson-KFF Health System Tracker, November 10, 2022, <https://www.healthsystemtracker.org/brief/covid-19-leading-cause-of-death-ranking/>.

² Johns Hopkins University & Medicine, “United States - COVID-19 Overview,” Johns Hopkins Coronavirus Resource Center, accessed March 16, 2023, <https://coronavirus.jhu.edu/region/united-states>.

³ Katie Bach, “New data shows long Covid is keeping as many as 4 million people out of work,” Brookings, August 24, 2022, <https://www.brookings.edu/research/new-data-shows-long-covid-is-keeping-as-many-as-4-million-people-out-of-work/>.

⁴ “Long COVID,” Centers for Disease Control and Prevention, December 16, 2022, <https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/index.html>.

⁵ Johns Hopkins University & Medicine, “United States - COVID-19 Overview.”

This pandemic did not come without controversy. In the context of public health, many argued that the interventions public health officials proposed to fight the virus ought to be followed because of their expertise in that area. However, other voices argued that some proposed interventions were illegitimate due to their infringement upon personal liberty. Still, others argued that they were unjustified due to the decrease of utility in the sense of discontending the public or harming the economy. These detractors did not seem to be without effect as there is evidence that public health institutions modified their proposals on the basis of these considerations rather than solely looking at what would best curb the pandemic. In view of the severe effects of the pandemic upon human life, it is natural to seek to analyze these events and consider both what was done in response to the pandemic along with the reasons for such responses. Was this the best that public health institutions could do given the circumstances? If not, what would it take to do better? In seeking to answer these questions, this paper will analyze the public health response to the pandemic from two key angles: the frameworks used to justify public health interventions as legitimate and the process of acquiring the compliance of the public with these interventions. The events of the COVID-19 pandemic provide a context that raises interesting questions regarding what kind of framework public health officials need to adopt in order to justify the interventions they both propose and enact. Likewise, research on how Americans perceived and responded to public health guidance throughout the pandemic raises serious questions regarding compliance and what is needed in order to acquire it. Taking all this information into account, it will be argued that the framework adopted by public health officials must give public health research a *sine qua non* role in justifying interventions. Conversely, it will be argued that the realities pertaining to public compliance suggest that

mandated compliance with public health interventions are the only effective recourse available to public health institutions in the case of another emergency similar to the COVID-19 pandemic.

It is my belief that current public health literature has yet to adequately engage with the issues facing the philosophical underpinnings of public health exposed during the pandemic. In current literature, the justification for a public health official's intervention is routinely attributed to ethical systems such as utilitarianism and libertarianism. Allowing that health can be affected by both liberty and happiness, it strikes me as out of place to make health interventions conform to those considerations rather than to view health as the primary end in and of itself. In other words, prioritizing liberty or utility automatically makes health a means rather than an end. Consequently, there is risk that placing a premium on considerations of liberty and utility will result in making health proposals that are less effective at promoting health or even misleading. For those who rely on public health institutions for guidance on how to best promote their health, the possibility of being misled is a serious concern. These preliminary remarks aside, it is prudent to examine the actual events of the pandemic before making a definitive judgement. Moving to the justification for the public's compliance, a similar problem emerges. Because ethical systems that are unable to prioritize health, except as a means, dominate current discussion, the justification for the public's compliance with interventions largely revolves around the concerns of systems like utilitarianism and libertarianism. I consider this arrangement to be unsatisfactory. As previously noted, there is no issue in affirming that liberty and utility affect health. Moreover, there is no issue in allowing that both should be considered primary ends in certain contexts. However, when it comes to public health, these considerations will be shown to be ill-suited as primary ends for public health officials. As will be argued, health outcomes can be hindered when priority is given to concerns of liberty and utility. For public

health institutions, this ought to be cause for concern if the promotion of public health is their true mission.

Turning to discussions outside of the public health world, there do seem to be ideas that hold potential for addressing some of the issues of priority revealed by the COVID-19 pandemic. Within the field of practical reasoning, literature on the topic of normative reasons for action seem applicable to the current situation by allowing public health officials to justify their action based on health research alone rather than seeking approval from utilitarian or libertarian standards for action. Such an approach to justifying interventions is not without issues for justifying the public's compliance. If public health officials are justified based on their knowledge, then how can the general public justify their compliance since they will not have that same knowledge? The peers of the public health official may be justified in their compliance since they know that the official does in fact possess that knowledge. However, the general public cannot be expected to meet the same level of understanding. Moreover, the discussion involving data on the public's willingness to comply with public health interventions will suggest that willing compliance among a sufficient percentage of the population is unlikely. In view of this, the discussion will turn to the topic of mandates and how such measures can be enacted with minimal excess and violation of public trust in the context of an emergency. Consequently, this aspect of the discussion will revolve around ways in which the public's trust in public health policy might be strengthened. On this front, the concepts of deliberative mini-publics and retrospective judicial review will be examined as potential trust-building solutions. Through this exploration, it is hoped that possible solutions to the problems public health endeavors face in the context of emergency situations such as a pandemic will be generated.

Frameworks for Justifying Interventions

One of the two crucial elements of public health ethics is determining the principle by which the public health official is justified in proposing a given intervention. As already noted, contemporary discussion on this point revolves around libertarian and utilitarian considerations. In the case of libertarianism, liberty is considered the principle by which all public health action must be judged. In the case of utilitarianism, the promotion of utility is the operating principle. The contributions of both frameworks to public health ethics will be discussed and difficulties in each will be highlighted. Subsequently, an alternative framework from the field of practical reasoning will be proposed as a possible solution to the issues raised with libertarianism and utilitarianism.

Libertarianism offers several unique approaches to public health ethics. This philosophical framework revolves around the idea of the individual as self-determining and self-governing.⁶ The natural implication of this conception of the individual is the idea that such individual's ought to have the liberty to live their lives as they see fit without external infringement.⁷ This understanding of the individual necessitates a particular understanding of government which in turn requires a particular vision for public health. This vision involves limitations on public health interventions such that they cannot coerce the individual to comply as this would violate their right to self-determination.⁸ On this basis, any public health intervention that encroaches on the individual's right of self-determination is illegitimate.⁹ Consequently, the libertarian vision for public health action turns towards interventions that safeguard individual liberty. The predominant expression of this is what has been termed

⁶ Stephen Holland, *Public Health Ethics*, (Polity Press, 2015), 95-97.

⁷ Holland, *Public Health Ethics*, 95-97.

⁸ Alex Rajczi, "Liberalism and Public Health Ethics." *Bioethics*, vol. 30, no. 2, 2015, 96–108. <https://doi.org/10.1111/bioe.12163>.

⁹ Rajczi, "Liberalism."

‘nudges.’ The intent of nudging is to influence the choice of the individual so that they choose to behave in a way conducive to health.¹⁰ Examples of nudging are various and could range from merely providing information to establishing financial incentives for desired choices.¹¹ However, it must be noted that nudges are controversial in libertarian discussions with some proponents of the libertarian framework rejecting them as paternalistic.¹² Overall, the libertarian vision for public health gives such organizations a purely advisory role with the individual having the ultimate say regarding their participation in public health initiatives. Even nudges operate on the basis of appealing to the individual’s reason and desires such that they have the final say. However, another key aspect of the libertarian vision involves what is called ‘the harm principle.’ This idea was developed in the thought of J.S. Mill and continues to hold sway in ongoing discussions.¹³ The heart of this principle is that no individual is free to act in a way that harms another.¹⁴ Accordingly, the state may legitimately interfere with an individual’s self-determination if that action results in harming another. It is this aspect of libertarianism that allows for more kinds of public health interventions. For example, if an entrepreneur’s restaurant employed poor sanitation procedures resulting in customers getting sick, public health officials could legitimately require the owner to change the practices of the business. However, for the libertarian, it would still be illegitimate for a public health intervention to seek to prevent an individual from acting in a way that would harm themselves. For example, interventions such as seatbelt laws would be illegitimate since they seek to prevent individuals from harming

¹⁰ Derek Soled, “Public Health Nudges: Weighing Individual Liberty and Population Health Benefits.” *Journal of Medical Ethics*, vol. 47, no. 11, 2020, pp. 756–760, <https://doi.org/10.1136/medethics-2020-106077>.

¹¹ Loni Ledderer et al. “Nudging in Public Health Lifestyle Interventions: A Systematic Literature Review and Metasynthesis.” *Health Education & Behavior*, vol. 47, no. 5, 2020, pp. 749–764, <https://doi.org/10.1177/1090198120931788>.

¹² Soled, “Public Health Nudges.”

¹³ L.O. Gostin and K.G. Gostin. “A Broader Liberty: J.S. Mill, Paternalism and the Public’s Health.” *Public Health*, vol. 123, no. 3, 2009, pp. 214–221, <https://doi.org/10.1016/j.puhe.2008.12.024>.

¹⁴ Gostin and Gostin, “A Broader Liberty.”

themselves. As a whole, libertarianism’s vision for public health ethics places a premium on individual liberty such that the only valid reason for infringing upon that liberty is to protect the liberty of others. This very same emphasis was demonstrated clearly in the context of the COVID-19 pandemic.

The Libertarian Framework in Action

Beginning in late 2019, COVID-19 became the context for intense polarization among Americans.¹⁵ One expression of this divide involved the use of libertarian arguments to protest a variety of public health interventions such as lockdowns, mask mandates, and vaccine mandates.¹⁶ In each of these cases, the reason for protest was individual liberty and the objection to what was seen as government infringement upon that liberty.¹⁷ In order to understand the impact of these arguments, the general benefit of the public health interventions must be determined. Regarding lockdowns, there was evidence to support the idea that such measures served to decrease the amount of people an infected person would likely spread the virus to.¹⁸ The same is true for mask mandates. Data confirmed that masks of all types helped to capture COVID-19 carrying droplets of moisture exhaled by infected persons.¹⁹ Lastly, the COVID-19 vaccine also proved to be an effective means of preventing infection and serious illness due to

¹⁵ John Kerr, Costas Panagopoulos, and Sander van der Linden “Political Polarization on Covid-19 Pandemic Response in the United States.” *Personality and Individual Differences*, vol. 179, 2021. 110892., <https://doi.org/10.1016/j.paid.2021.110892>.

¹⁶ Carmel Shachar. “Understanding Vaccine Hesitancy and Refusal through a Rights-Based Framework.” *American Journal of Public Health*, vol. 112, no. 2, 2022, pp. 229–231, <https://doi.org/10.2105/ajph.2021.306636>; Jen Schradie, “‘Give Me Liberty or Give Me Covid-19’: Anti-Lockdown Protesters Were Never Trump Puppets.” *Communication and the Public*, vol. 5, no. 3-4, 2020, pp. 126–128, <https://doi.org/10.1177/2057047320969433>.

¹⁷ Schachar “Understanding Vaccine Hesitancy”; Schradie, “Give me Liberty.”

¹⁸ Vincenzo Alfano and Salvatore Ercolano. “The Efficacy of Lockdown against COVID-19: A Cross-Country Panel Analysis.” *Applied Health Economics and Health Policy*, vol. 18, no. 4, 2020, pp. 509–517, <https://doi.org/10.1007/s40258-020-00596-3>.

¹⁹ Yuxin Wang, Zicheng Deng, and Donglu Shi, “How Effective Is a Mask in Preventing COVID-19 Infection?” *MEDICAL DEVICES & SENSORS*, vol. 4, no. 1, 2021, <https://doi.org/10.1002/mds3.10163>.

COVID-19.²⁰ Thus, according to the data, lockdowns, mask mandates, and vaccine mandates would have been effective means of serving the public health by hindering the spread and effects of COVID-19. However, each of these measures are in direct conflict with libertarian convictions. In all cases, these interventions would involve constraining individual liberty. It is true that arguments could be made via the harm principle that all these measures would involve protecting others from harm and the effectiveness of these measures could provide support for this reasoning. However, the harm principle seems to require a degree of certainty and imminence of the danger. In the case of these public health measures, they seem to have been more about reducing the risk of potential harm rather than preventing actual and imminent harm because they are sweeping interventions rather than employed on a case-by-case basis. This distinction is important because there is no certainty that any specific person affected by these measures would, in fact, be harming anyone by spreading COVID-19 since there is uncertainty that any given person has the virus. If a given individual was a known carrier of the virus, the harm principle could offer a much stronger reason for constraining their liberty through something like quarantining. In this kind of case, the danger posed by the person is imminent because they are releasing the virus through exhalation into the air around others who are exposed. However, though such reasoning is compatible with libertarianism, it does not resolve the issue of large swathes of Americans simply not believing that the dangers posed by COVID-19 were significant enough to warrant such measures.²¹ This phenomenon made the harm principle irrelevant in the eyes of many since they denied the reality of the danger. Thus, the

²⁰ Caifang Zheng et al. “Real-World Effectiveness of Covid-19 Vaccines: A Literature Review and Meta-Analysis.” *International Journal of Infectious Diseases*, vol. 114, 2022, pp. 252–260, <https://doi.org/10.1016/j.ijid.2021.11.009>.

²¹ Berkeley Franz and Lindsay Y. Dhanani. “Beyond Political Affiliation: An Examination of the Relationships between Social Factors and Perceptions of and Responses to Covid-19.” *Journal of Behavioral Medicine*, vol. 44, no. 5, 2021, pp. 641–652, <https://doi.org/10.1007/s10865-021-00226-w>.

harm principle proved to be unreliable in this context due to both issues in being able to demonstrate imminent danger along with subjective and widely diverse views as to the danger posed by the pandemic. Though this does not delegitimize libertarianism in theory, the problems and ease of misinformation in our current context suggests that this framework is ill-suited for the public health's task. Consequently, the overriding concern of protecting individual liberty was established at the expense of supporting health-promoting measures.

With this exploration, it is clear that libertarian concerns proved to be in direct conflict with concerns for promoting public health. Moreover, there is nothing preventing these libertarian arguments to be used again in the context of another pandemic with the result of hindering the ability of effective countermeasures to be enacted. The underlying issue is that libertarianism gives primacy to liberty rather than health. The secondary status given to health ultimately leads to a hinderance of its promotion. Therefore, if the health of the public is to be considered a fundamental concern, then a framework for public health ethics must be sought elsewhere.

The Utilitarian Framework in Action

Utilitarianism constitutes another framework for public health ethics that occupies a dominant place in ongoing discussion. As a form of consequentialism, utilitarianism's core concern is maximizing utility or happiness for as many people as possible.²² This is considered the consequence by which an action that promotes this end is considered right. In other words, an action that promotes utility is considered right in a utilitarian framework.²³ Because of this, utilitarianism offers a wide array of applications to public health. In contrast to libertarianism, utilitarianism would consider seatbelt laws as legitimate forms of public health intervention.

²² Holland, *Public Health Ethics*, 44.

²³ Holland, *Public Health Ethics*, 44.

While the intervention does infringe on an individual's liberty, it also serves to save lives in the event of a car wreck. The high benefit of preventing death serves to advance utility and thereby justifies the intervention. It is important to note, however, that because utilitarianism has such a broad understanding of utility, there would theoretically be times where promoting health is not as conducive to promoting utility as other ends. For example, if it were the case that the technology for seatbelts was so expensive that the economy would take a downturn if seatbelts were made mandatory, then utilitarianism would disfavor the enactment of such a possibility. Likewise, if the general public would greet this measure as an intolerable infringement upon their liberty such that uprisings would occur, utilitarianism would again disfavor the enactment of such a policy. With these elements of utilitarianism established, it is important to explore how this framework fared in the context of COVID-19.

By its nature, utilitarianism offered a variety of responses to the question of what should be done about the COVID-19 pandemic. Its emphasis on maximizing the happiness of the highest number possible paired well with public health interests of minimizing the effects of COVID-19 on the general population. Regarding the question of lockdowns, utilitarianism could provide a justification for them because, as previously noted, lockdowns were a viable means of decreasing the spread of COVID-19 along with the suffering such spread would result in.²⁴ Likewise, mask mandates would be considered justified as they would also serve to decrease the spread of and resultant suffering caused by COVID-19.²⁵ Finally, vaccine mandates could also be justified due to decrease in both being infected by COVID-19 and decreases in the severity of the illness in the event of infection.²⁶ Thus, utilitarianism is able to provide justifications for the

²⁴ Alfano and Ercolano, "The Efficacy of Lockdown."

²⁵ Wang, Deng, and Shi, "How Effective Is a Mask."

²⁶ Zheng et al, "Real-World Effectiveness."

main public health measures proposed during the pandemic. However, utilitarianism is not inherently disposed to the promotion of public health but must also consider other factors with equal regard. These factors are the economy and public comfort. My concern with this is that this would theoretically require the PHO to sometimes disregard motivations to promote health in order to support these other considerations in the utilitarian calculation. As outlined previously, promoting utility sometimes requires utilitarianism to give more weight to economic considerations or the comfort of the masses. It is these considerations that resulted in utilitarian arguments in direct opposition to public health endeavors. One expression of this opposition was economic arguments against COVID-19 lockdowns. The thrust of this argument was that the negative economic effects caused by lockdowns outweighed any benefits from reduced infection so that it would decrease overall utility by enacting this public health measure.²⁷ For the current discussion, it is not important whether this claim was actually correct. It is only important that this line of reasoning is consistent with the utilitarian framework and that people used it. On the topic of mask mandates, political pressure and public unrest played a major role in policy decisions. At the county level, there were examples of political pressure influencing public health policies.²⁸ Early in the pandemic there were reports that pressure from the White House was influencing the FDA to grant Emergency Use Authorizations to treatments that otherwise would not have been approved.²⁹ Moreover, there are claims that the CDC revised its masking

²⁷ Austan Goolsbee and Chad Syverson, “Fear, Lockdown, and Diversion: Comparing Drivers of Pandemic Economic Decline 2020,” *Journal of Public Economics*, vol. 193, 2021, 104311, <https://doi.org/10.3386/w27432>.

²⁸ Hadie Islam et al. “Evaluating the Effectiveness of Countywide Mask Mandates at Reducing SARS-COV-2 Infection in the United States.” *Journal of Osteopathic Medicine*, vol. 122, no. 4, 2022, pp. 211–215, <https://doi.org/10.1515/jom-2021-0214>.

²⁹ Nicholas Florko, “FDA, under pressure from Trump, authorizes blood plasma as Covid-19 treatment,” STAT, August 23, 2020, <https://www.statnews.com/2020/08/23/fda-under-pressure-from-trump-expected-to-authorize-blood-plasma-as-covid-19-treatment/>; Matthew Perrone and Kevin Freking, “Panel: Trump staffers pushed unproven COVID treatment at FDA,” AP News, August 24, 2022, <https://apnews.com/article/hydroxychloroquine-covid-treatment-campaign-8f136d7e9dc52fd2d8da8854680d6004>.

guidelines in response to civil unrest due to the mandates.³⁰ This claim is plausible considering the established effectiveness of masking and the ongoing nature of the pandemic. It would seem that the only factor that changed within this shift was growing dissatisfaction with the policy. While it is impossible to know if this was the actual motivations behind these changes, it certainly is not implausible. Using a utilitarian framework, it is reasonable to conclude that the political cost of keeping mask mandates in place outweighed any benefit to public health. Revising the policy would thereby be justified to appease this dissatisfaction and increase utility.

In the context of the COVID-19 pandemic, utilitarian arguments regarding the correct response constituted a mix of opposing conclusions. On one hand, utilitarianism supplies concrete justifications of public health interventions that promote utility. This would include measures that infringe on liberty such as lockdowns, mask mandates, and vaccine mandates. However, it was also shown that utilitarianism is capable of consistently opposing these same measures with a different perspective on what promotes utility. This was manifesting clearly with economic arguments against lockdowns and arguments against mask mandates based on social unrest. This phenomenon illustrates the fact that utilitarianism does not necessarily require actions to promote health itself. Rather, other considerations are equally important regarding their ability to further utility. Herein lies the issue with adopting utilitarianism as a framework for public health ethics. By its nature, it can provide justification for recommending less effective measures out of concerns of public discontentment rather than on the basis of health itself. There is reason to think something like this happened with the FDA and certain emergency use authorizations. Utilitarianism is inherently susceptible to policies determined by political

³⁰ Lawrence Gostin and Seble Kassaye. "Covid Changes Are about Politics, Not Public Health." The Daily Beast, February 26, 2022, <https://www.thedailybeast.com/the-cdc-announcing-covid-mask-changes-comes-far-too-soon?source=articles&via=rss>.

pressure because such pressure would play into utility. Therefore, there are cases when the utilitarian conclusion conflicts with concerns of promoting health outcomes. This too makes it a poor fit for the goals of public health if it is assumed that these institutions exist to promote health. Additionally, utilitarian arguments were validly used to prioritize the economy or the comfort of the general public rather than health. Consequently, though it is able to justify a variety of public health interventions, it does not necessarily favor outcomes of health in the way that a public health official ought to. It is unfitting for public health officials to be preoccupied with any consideration that is not the public's health. While the economy and political pressure are worthy of consideration, they should not have equal footing with health within the framework adopted by the official. As a result, utilitarianism seems ill-suited for providing continual and reliable support for public health interventions. Thus, a framework that places an unchanging premium on actions that promote the health of the public seems a better fit for the public health mission.

Moving towards an Evidence-Based Approach

Libertarianism and utilitarianism constitute two of the predominant approaches to public health ethics. However, it has been shown that both frameworks are unable to reliably promote public health. Because of the overwhelming emphasis on these frameworks within the public health literature, it is necessary to turn to literature outside of this context to search for a framework that may be able to offer better results for the public health enterprise. The previous discussions revealed that a better system would involve a prioritization of health over other considerations such as liberty and utility. Such a prioritization would resolve the conflict of purpose that a public health official is subjected to when specific concerns of promoting health are incompatible with concerns of utility and liberty. Regarding libertarianism, this prioritization

of health would enable effective public health interventions that infringe upon liberty to be legitimate. Regarding utilitarianism, this prioritization would allow public health officials to treat considerations such as the economy and political pressure as secondary to the primary goal of promoting health.

A framework that meets these criteria may be acquired from the field of practical reasoning. Within this field, there is a discussion regarding normative reasoning and the justification for action that holds potential for application to public health ethics. Normative reasons are reasons that show an action to be right.³¹ They are paired with motivating reasons that provide the background perspective that makes an action seem worthy of doing or grant something value.³² Normative reasons can take many forms, but the one of interest for the current discussion are those that revolve around facts.³³ With reference to public health, the motivating reason would be the promotion of health. This would constitute the lens through which a public health official considers action. Normative reasons would be the fruits of research that show relationships between certain behaviors and poor health outcomes or associations between certain environmental factors and poor health outcomes and vice versa. The motivating reason turns these facts into justifications for enacting measures based on these facts that promote the public's health. In short, this framework places the justification for a public health measure upon actionable public health research.

Additionally, a modified version of rule utilitarianism might offer similar benefits. As already noted, utilitarianism offers a wide ranging ability to justify the measures needed to promote public health. The issue with this framework was its theoretical inability to consistently

³¹ Jonathan Dancy, *Practical Reality* (Oxford University Press, 2004), 15.

³² Dancy, *Practical Reality*, 15.

³³ Dancy, *Practical Reality*, 28.

prioritize public health concerns. However, it is possible that a modified version of it is able to overcome these hurdles. One famous version of rule utilitarianism is that of J.S. Mill. In his account, the principle of utility must be pursued in such a way that protects and preserves liberty. In other words, Mill believed that protecting liberty was necessary in order to maximize utility.³⁴ A rule-utilitarian framework that holds to the promotion of public health as a necessary rule to abide by could satisfy the current needs of public health. In similar operation to the previously suggested framework, public health interventions must be formulated in accordance with what public health research would suggest is the best course of action for promoting health. Even if the ultimate goal is to promote utility, the specific interests of public health will be necessarily preserved. As an additional benefit, such a framework could likely adopt most, if not all, the fruits of utilitarian public health ethics.

In relation to utilitarianism and libertarianism, both of these suggested frameworks overcome the issues noted with both. Rather than seeking justification for action with reference to liberty or an unqualified principle of utility, a public health official using either of these frameworks would be able to focus primarily upon the quality of the research suggesting a way of promoting health. Conversely, if either of these frameworks were adopted, determining the legitimacy of a public health intervention by referencing utility or liberty without reckoning with public health research would be an invalid method of justification. This would guard against arguments within the public health context that object to any given measure that effectively promotes health. Pushing against lockdowns due to economic impact alone would be an invalid reason for a public health official. Similarly, political pressure and social dissatisfaction would also be invalid reasons for revising a public health policy. In each of these cases, a motivating

³⁴ Piers Norris Turner, "The Absolutism Problem in 'On Liberty'" *Canadian Journal of Philosophy* vol. 43.3, 2013, pp. 322–340, <https://doi.org/10.1080/00455091.2013.847346>.

reason different than promoting health would have to constitute the basis for such objections. Such motivations are susceptible to conflict with concerns of promoting public health outcomes. An added benefit of such a framework may also help address the problem of trust that will be discussed later. Perceptions that public health policy was being formulated in the service of political rather than health-related interests contributed to the public's disregard of these policies.³⁵ Awareness that public health officials use a framework that illegitimizes any policy that is not in accord with scientific research may reduce distrust.

This discussion outlined the difficulties associated with applying libertarian and utilitarian frameworks to public health. By noting these difficulties, it was possible to seek alternative frameworks that adequately address them. The exploration of the concepts of normative reasoning and modified rule-utilitarianism demonstrated that they are viable candidates for public health ethics frameworks. However, these frameworks' shared emphasis on the knowledge of the public health official raises questions regarding the justification for the public's compliance with whatever measures a public health official calls for. Thus, it is necessary to navigate the topic of the public's justification for complying with public health interventions. Due to their predominance in the public health discussion, the way in which libertarianism and utilitarianism answers this question will be examined. Moreover, this discussion will determine whether the public's compliance could be justified if a research-oriented framework is adopted by public health officials.

The Phenomenon of Noncompliance During COVID-19

³⁵ Danielle M. McLaughlin, Jack Mewhirter, and Rebecca Sanders, "The belief that politics drive scientific research & its impact on COVID-19 risk assessment," *PLoS ONE*, vol. 16.4, e0249937, <https://doi.org/10.1371/journal.pone.0249937>.

Whereas the previous section focused on the justification of a public health measure from the perspective of the PHO, the following will shift to the perspective of the public. As previously noted, the idea that a public health measure can be justifiably proposed based on the PHO's knowledge of relevant scientific issues raises questions regarding what can justify the public's compliance with these same measures. The knowledge a public health official has is obviously not easily communicated to those who have not spent a comparable amount of time researching the relevant issues. Consequently, the public should not be expected to understand the complex biological and sociological research that underpins public health initiatives. In view of this, the means by which the public health official is justified in proposing and enacting a public health measure cannot be the same means by which the public is justified in their accepting and compliance with these measures. Addressing this problem is of paramount importance as the events of the COVID-19 pandemic illustrated.

One does not have to search long to find wide-ranging examples of public unrest during the pandemic. For example, America witnessed several protests that reached thousands of participants. In Lansing, Michigan an estimated 3500 protestors flocked to the state's Capitol building in order to use their vehicles to gridlock traffic in the city.³⁶ In Orange County, California, 2700 gathered to protest the shutting down of Huntington Beach.³⁷ Also in California, 2000 protestors gathered at the state capitol building in a protest dubbed as "Liberty Fest."³⁸ Among the grievances common to the protestors at each of these events were concerns that

³⁶ Allan Smith, "'Lock her up!': Anti-Whitmer coronavirus lockdown protestors swarm Michigan Capitol," NBC News, April 15, 2020, <https://www.nbcnews.com/politics/politics-news/lock-her-anti-whitmer-coronavirus-lockdown-protestors-swarm-michigan-capitol-n1184426>.

³⁷ Mallika Kallingal and Sarah Moon, "Large crowds in Huntington Beach protest beach closures by California governor," CNN, May 2, 2020, <https://www.cnn.com/2020/05/01/us/california-orange-county-injunction-beaches/index.html>.

³⁸ Sam Stanton and Dale Kasler, "Liberty Fest at California Capitol against stay-at-home order," The Sacramento Bee, May 23, 2020, <https://www.sacbee.com/news/politics-government/capitol-alert/article242946886.html>.

personal liberties were being violated through lockdown orders as well as utility in the form of economic slowdowns. Additionally, there were participants in all of these protests whose grievances were based on suspicion of the vaccine and concerns of nefarious motivations behind the measures. Beyond America, several protests reached astounding magnitudes and levels of disruption. In Vienna, Austria, 44,000 gathered at the city center for a march protesting an imminent compulsory vaccination mandate.³⁹ In Belgium, a Brussels protest involved an estimated 35,000 people. While initially peaceful, this protest turned violent with some of the participants actively targeting police.⁴⁰ Lastly, France experienced massive protests nationwide that involved hundreds of thousands of people at a time in anticipation of developing public health policies.⁴¹ Similar to the situation in America, each of these protests were marked by mixed concerns of liberty, utility, and distrust of public health institutions.

The oppositional actions of significant portions of the population were not limited to public protests. Large portions of the public exhibited less visible forms of opposition to public health proposals. With regard to American attitudes regarding masks, polling indicated that American compliance with masking directives shifted throughout the pandemic. Mask wearing peaked at around 80% in December of 2020.⁴² This coincided with the first marked peak in both cases and deaths at a 7-day average of 250,000 cases and 3,000 deaths.⁴³ This peak in mask

³⁹ Chris Jewers, "Tens of thousands of protesters march through Vienna with 'No to vaccine fascism' signs in furious demonstration against compulsory COVID shots," *The Daily Mail*, December 11, 2021, <https://www.dailymail.co.uk/news/article-10299669/Thousands-protesters-march-Vienna-furious-demonstration-against-compulsory-Covid-jabs.html>.

⁴⁰ Christian Levaux, Johnny Cotton, Sabine Siebold, "Clashes break out in Brussels in protests over coronavirus restrictions," *Reuters*, November 21, 2021, <https://www.reuters.com/world/europe/around-35000-protest-against-covid-restrictions-brussels-police-say-2021-11-21/>.

⁴¹ Kim Willsher, "Fifth consecutive weekend of protests in France over Covid pass," *The Guardian*, August 14, 2021, <https://www.theguardian.com/world/2021/aug/14/fifth-consecutive-weekend-of-protests-in-france-over-covid-pass>.

⁴² Jennifer Lin et al, "Health Behaviors: Recommendation Adherence," *COVID STATES PROJECT*, accessed March 16, 2023, https://lazerlab.shinyapps.io/Behaviors_During_COVID/.

⁴³ Johns Hopkins University & Medicine, "United States - COVID-19 Overview."

wearing was followed by a downward trend in compliance with approximately 57% of Americans wearing masks during the next two spikes in cases and deaths in September 2021 and January 2022.⁴⁴ The September peak involved a 7-day average of 120,000 cases and 2,000 deaths whereas the January peak involved a 7-day average of 800,000 cases and 2,500 deaths.⁴⁵ While a consistent majority of Americans wore masks during these times, the portion of those who did not wear masks was significant. A noncompliant population of 20-40% translates to substantial obstacles to optimizing COVID-19 mitigation efforts. A survey of approximately 300,000 Americans during the pandemic found that community transmission of COVID-19 was three times less likely to occur given a 10% increase in mask wearing.⁴⁶ More generally, several studies revealed that communities that imposed mandatory mask wearing in public spaces showed marked declines in case rates.⁴⁷ One of these studies estimated that masking interventions across 15 states and Washington D.C. prevented over 200,000 cases of COVID-19.⁴⁸ Thus, it is safe to conclude that such large levels of noncompliance with masking directives constituted a tremendous setback to minimizing the presence and spread of COVID-19 within the general population.

Turning to the topic of vaccination, there were mixed results regarding compliance.

Overall, about 80% of Americans were vaccinated with at least one dose as of March 2023.

⁴⁴ Lin et al, "Recommendation Adherence"; Johns Hopkins University & Medicine, "United States - COVID-19 Overview."

⁴⁵ Johns Hopkins University & Medicine, "United States - COVID-19 Overview."

⁴⁶ Benjamin Rader et al, "Mask-wearing and control of SARS-CoV-2 transmission in the USA: a cross-sectional study," *The Lancet, Digital health*, vol. 3.3, 2021, pp. e148-e157, [https://doi.org/10.1016/S2589-7500\(20\)30293-4](https://doi.org/10.1016/S2589-7500(20)30293-4).

⁴⁷ M. Shayne Gallaway et al, "Trends in COVID-19 Incidence After Implementation of Mitigation Measures — Arizona, January 22–August 7, 2020," *Morbidity and Mortality Weekly Report*, vol. 69.40, 2020 pp. 1460-1463, <http://dx.doi.org/10.15585/mmwr.mm6940e3>; Wei Lyu and George L. Wehby, "Community Use Of Face Masks And COVID-19: Evidence From A Natural Experiment Of State Mandates In The US," *Health Affairs*, vol. 39.8, 2020, <https://doi.org/10.1377/hlthaff.2020.00818>; Gery P. Guy, Jr., "Association of State-Issued Mask Mandates and Allowing On-Premises Restaurant Dining with County-Level COVID-19 Case and Death Growth Rates — United States, March 1–December 31, 2020," *Morbidity and Mortality Weekly Report*, vol. 70.10, 2021, pp. 350-354, <http://dx.doi.org/10.15585/mmwr.mm7010e3>.

⁴⁸ Lyu and Wehby, "COVID-19 Case and Death Growth Rates."

However, when breaking this figure down by state, one finds that approximately half of states have less than 70% of their population vaccinated. Of those, 16 states have rates at or below 60%.⁴⁹ This reality takes on a more significant light when one considers the importance of high vaccination rates to protecting communities against the spread of COVID-19. Depending on the strain in question's transmissibility, public health experts have listed vaccination averages ranging from 70% to 85% as assurance of the needed immunity to effectively diminish the transmissibility of the virus in a given population.⁵⁰ Thus, many states fall short of these thresholds and are less protected against continued prevalence of COVID-19. In addition to protecting the individual by reducing infection risk, researchers have found links between vaccination and reduced transmissibility of the virus.⁵¹ Furthermore, COVID-19 vaccines have been connected to far better outcomes for those who, having been vaccinated, still contracted the virus. For example, the risk of severe cases of COVID-19, including the need for mechanical ventilation and death, were found to be reduced by 90% in vaccinated individuals as opposed to the unvaccinated.⁵² It is worth noting that severe cases of COVID-19 have been closely linked with the development of long-COVID.⁵³ Looking at mortality specifically, death due to the virus was reduced several times over across all age ranges of adults compared with the unvaccinated.⁵⁴ In short, COVID-19 vaccination was a reliable means of both hindering the spread and greatly reducing the suffering caused by the virus.

⁴⁹ Johns Hopkins University & Medicine, "Understanding Vaccination Progress: U.S. Vaccination Efforts," Johns Hopkins Coronavirus Resource Center, accessed March 16, 2023, <https://coronavirus.jhu.edu/vaccines/us-states>.

⁵⁰ Sara Berg, "What doctors wish patients knew about COVID-19 herd immunity," American Medical Association, August 27, 2021, <https://www.ama-assn.org/delivering-care/public-health/what-doctors-wish-patients-knew-about-covid-19-herd-immunity>.

⁵¹ Darius Mostaghimi et al, "Prevention of host-to-host transmission by SARS-CoV-2 vaccines," *The Lancet, Infectious diseases*, vol. 22.2, 2022, [https://doi.org/10.1016/S1473-3099\(21\)00472-2](https://doi.org/10.1016/S1473-3099(21)00472-2).

⁵² "Impact of Vaccination on Risk of COVID-19-Related Mortality," Centers for Disease Control and Prevention, November 16, 2022, <https://www.cdc.gov/coronavirus/2019-ncov/science/data-review/vaccines.html>.

⁵³ CDC, "Long COVID."

⁵⁴ CDC, "Impact of Vaccination."

In the context of restrictions on public interactions via quarantining, and social distancing, and business lockdowns, research has shown significant levels of noncompliance. According to one study, 22.5% of respondents reported having broken quarantine rules and 21% reported avoiding testing when they suspected they had contracted COVID-19.⁵⁵ In terms of social distancing, a survey revealed that 43.1% of the 17,287 participants were not complying with social distancing and self-isolation directives.⁵⁶ Lastly, there were reports of businesses throughout the United States defying lockdown orders by reopening.⁵⁷ Perhaps the most intense examples of defiance were in the state of Texas. Throughout the state, businesses defied lockdowns with the help of armed protestors acting as security for the business.⁵⁸ Regarding quarantining, one study found that transmission was reduced by 37% when individuals and those in their households followed quarantined guidelines.⁵⁹ More broadly, social-interaction minimizing policies such as stay-at-home orders were associated with an approximately 50% reduction in cases and 60% reduction in fatalities over three weeks compared to counties that did not impose such restrictions.⁶⁰ Lastly, an analysis examining the effect of lockdown-related business closures on cases and fatalities in every United States county in the first 10 months of

⁵⁵ Andrea Gurmankin Levy et al, “Misrepresentation and Nonadherence Regarding COVID-19 Public Health Measures,” *JAMA Network Open*, vol. 5.10, 2022, e2235837, <https://doi.org/10.1001/jamanetworkopen.2022.35837>.

⁵⁶ Ryan C. Moore et al, “Age-Related Differences in Experiences With Social Distancing at the Onset of the COVID-19 Pandemic: A Computational and Content Analytic Investigation of Natural Language From a Social Media Survey,” *JMIR Human Factors*, vol. 8.2, 2021, e26043, <https://doi.org/10.2196/26043>.

⁵⁷ Kate Gibson, “Businesses large and small are defying lockdowns,” CBS News, May 13, 2020, <https://www.cbsnews.com/news/coronavirus-tesla-elon-musk-businesses-lockdowns/>; J.D. Tuccille, “Americans Are in Full Revolt Against Pandemic Lockdowns,” Reason Magazine, December 16, 2020, <https://reason.com/2020/12/16/americans-are-in-full-revolt-against-pandemic-lockdowns/>.

⁵⁸ Manny Fernandez and David Montgomery, “Businesses Chafing Under Covid-19 Lockdowns Turn to Armed Defiance,” The New York Times, May 13, 2020, <https://www.nytimes.com/2020/05/13/us/coronavirus-businesses-lockdown-guns.html>.

⁵⁹ Adam J. Kucharski, “Effectiveness of isolation, testing, contact tracing, and physical distancing on reducing transmission of SARS-CoV-2 in different settings: a mathematical modelling study,” *The Lancet. Infectious Diseases*, vol. 20.10, 2020, pp. 1151-1160, [https://doi.org/10.1016/S1473-3099\(20\)30457-6](https://doi.org/10.1016/S1473-3099(20)30457-6).

⁶⁰ James H. Fowler, “Stay-at-home orders associate with subsequent decreases in COVID-19 cases and fatalities in the United States,” *PLoS ONE*, vol. 16.6, 2021, e0248849, <https://doi.org/10.1371/journal.pone.0248849>.

the pandemic found significant reductions in both.⁶¹ For example, this study found that restaurant closures reduced expected fatalities by 36.4% after implementation.⁶² Essentially, each of these policies targeting public interaction were shown to be associated with improved outcomes in terms of reduction of cases and deaths. Consequently, the efforts opposing these interventions served to diminish the effectiveness of these policies and increase the risk for COVID-19's spread.

These statistics regarding the effectiveness of mitigation efforts as well as the levels of public compliance should not be considered mere curiosities of interest only to public health officials. Rather, they correspond to a sobering reality of human suffering. As has already been noted, over 1 million Americans died due to this pandemic,⁶³ COVID-19 became the third leading cause of death in America,⁶⁴ and long COVID is likely to prolong the suffering of tens of millions of Americans.⁶⁵ While it is impossible to determine how many lives would have been saved or how many cases would have been prevented if there had been full compliance among Americans, it is obvious that the effect of such compliance would have been significant.

Motivations for Noncompliance

In light of this reality, it is important to understand why there was such stringent resistance to public health policies by Americans. When it came to mask-wearing, Americans who refused to wear them cited a variety of reasons. In a poll conducted in the summer of 2020, 20% of respondents denied compliance with mask directives. The cited reasons of interest to this discussion were as follows: "It's my right as an American to not wear a mask" (40%), "It is

⁶¹ Matthew Spiegel and Heather Tookes, "Business Restrictions and COVID-19 Fatalities," *The Review of Financial Studies*, vol. 34.11, 2021, pp. 5266–5308, <https://doi.org/10.1093/rfs/hhab069>.

⁶² Spiegel and Tookes, "Business Restrictions."

⁶³ Johns Hopkins Coronavirus Resource Center, "United States."

⁶⁴ Ortazila, Amin, and Cox, "COVID-19 leading cause."

⁶⁵ Bach, "New data shows long Covid."

uncomfortable” (24%), and “The coronavirus is a conspiracy” (11%).⁶⁶ Turning to vaccine hesitancy, of those who did not get the COVID-19 vaccine, a December 2021 Census Bureau survey revealed a variety of motivating factors. Of interest to this discussion were the following: 42.4% cited distrust of the vaccine, 35.4% cited distrust of the government, 31.8% did not believe they needed the vaccine, and 22.4% did not think COVID-19 was dangerous.⁶⁷

Moving on to compliance with quarantining, social distancing, and lockdowns, several studies collected relevant data. Regarding quarantining, the previously cited research on levels of adherence to public health guidance also asked respondents to list their reasons for noncompliance. For those who broke quarantine rules, 52.9% claimed “I wanted to exercise my freedom to do what I want” as a motivation, 59.3% claimed “It’s no one else’s business,” 37.2% claimed “I couldn’t miss work or stay home,” 41.3% claimed “I didn’t want to miss an event or fun activity,” 39.5% claimed “I didn’t think COVID-19 was a big deal,” and 28.2% claimed “I didn’t think COVID-19 was real.”⁶⁸ In relation to social distancing, two studies conducted research on reasons for non-compliance. The first, carried out in the spring of 2020 found that reasons given by the 39.8% noncompliant were as follows: 28.2% fell under the category of non-essential work requirements, 20.3% cited mental and physical health, 13.9% cited nonessential activities, and 12.7% believed society was overreacting.⁶⁹ A second study conducted by the same research team over the spring and summer of 2021 found that of the 43.1% reporting

⁶⁶ Edward D. Vargas and Gabriel R. Sanchez, “American individualism is an obstacle to wider mask wearing in the US,” Brookings, August 31, 2020, <https://www.brookings.edu/blog/up-front/2020/08/31/american-individualism-is-an-obstacle-to-wider-mask-wearing-in-the-us/>.

⁶⁷ Lindsay M. Monte, “Household Pulse Survey Shows Many Don’t Trust COVID Vaccine, Worry About Side Effects,” United States Census Bureau, December 28, 2021, <https://www.census.gov/library/stories/2021/12/who-are-the-adults-not-vaccinated-against-covid.html>.

⁶⁸ Levy et al, “Misrepresentation and Nonadherence.”

⁶⁹ Ryan C. Moore et al, “Experience with Social Distancing Early in the COVID-19 Pandemic in the United States: Implications for Public Health Messaging,” *medRxiv*, 2020, <https://doi.org/10.1101/2020.04.08.20057067>.

noncompliance, their primary reasons were as follows: 57.3% claimed “cannot afford to miss work,” 7.1% claimed “mental and physical health needs,” 4.9% claimed “nonessential activities,” 4.5% claimed “society is overreacting,” and 3.8% claimed “do not believe social isolation to be effective.”⁷⁰ Lastly, reports describing the defiance of lockdown orders by business owners routinely listed motivations that revolved around either exercise of liberty or economic necessity.⁷¹

Summarizing this data, we find that as far as masking was concerned, liberty, convenience, and distrust of public health information were primary factors for Americans. For vaccination, the concerns cited primarily revolved around distrust of public health information and disbelief in the vaccine’s usefulness. In terms of quarantining, social distancing, and lockdowns, the frequent motivations for noncompliance were desires to exercise freedom, economic necessity, and distrust of public health information. What do we do with these insights? We sit at the tail-end of a pandemic that resulted in the deaths of over 1,000,000 Americans. Those 1,000,000 deaths translated to over 13.5 million years of expected life lost—all in the course of three.⁷² Moreover, the very public health policies designed to prevent us from paying such a heavy toll were frequently disregarded in service of all the motivations we have

⁷⁰ Moore et al, “Age-Related Differences.”

⁷¹ Anh Do and Luke Money, “Some SoCal restaurants are defying California lockdown rules: ‘We have to make a living,’” Los Angeles Times, December 8, 2020, <https://www.latimes.com/california/story/2020-12-08/restaurants-defy-california-coronavirus-lockdown-rules>; Elise Young, “New Jersey Businesses Defy Lockdown After Murphy Violates Own Order,” Bloomberg, June 11, 2020, <https://www.bloomberg.com/news/articles/2020-06-11/n-j-businesses-defy-lockdown-after-murphy-violates-own-order#xj4y7vzkg?leadSource=uverify%20wall>; Jacob Solis and Riley Snyder, “Cities, counties ramp up enforcement as some nonessential businesses defy governor, remain open,” The Nevada Independent, <https://thenevadaindependent.com/article/cities-counties-ramp-up-enforcement-as-some-non-essential-businesses-defy-governor-remain-open>; Kayla Ruble and Robert Klemko, “The other rebellion: Dozens of Michigan restaurants defy state coronavirus order,” The Washington Post, January 30, 2021, https://www.washingtonpost.com/national/michigan-restaurants-covid-restrictions/2021/01/30/e97b53ba-5b49-11eb-a976-bad6431e03e2_story.html.

⁷² Hanke Heun-Johnson and Bryan Tysinger, “The Burden of 1 Million Excess Deaths: 13.5 Million Years of Life Lost During the COVID Pandemic,” Leonard D. Schaeffer Center for Health Policy and Economics, February 2, 2022, <https://healthpolicy.usc.edu/evidence-base/the-burden-of-1-million-excess-deaths-13-5-million-years-of-life-lost-during-the-covid-pandemic/>.

discussed. It is impossible to look at all this data and not wonder how many lives and how much suffering would have been averted had Americans approached this pandemic with a united focus. However, it is equally clear that such unity could not have taken place in the face such disparate values and motivations. Consequently, the following question arises: what, if anything, can be done to prevent a similar situation from occurring again?

Libertarian and Utilitarian Approaches to Public Compliance

As the previous section of this paper noted, libertarian approaches to public health are common. However, they offer a relatively limited array of tools for promoting public health. In fact, the core commitments of libertarianism would ultimately disqualify mandated expressions of the three public health recommendations we have examined. As the data we have analyzed indicated, there were many Americans who were not supportive of these interventions in any sense. Consequently, there is no reason to expect that they would have followed these recommendations even if they had been left to their own devices. For them, the risks to themselves and others posed by COVID-19 did not outweigh their priority of exercising freedom to do as they please. From a libertarian perspective, this would simply be a situation we would have to content ourselves with. To enact any policy that would limit the exercise of one's freedom would be illegitimate. As tragic as the loss of life may be, the libertarian answer is ultimately that the loss of individual freedom is worse. Regardless of how one appraises this position, the reality is that significant portions of Americans accept this viewpoint. As a result, doing what is necessary in the context of public health to prevent another COVID-19 situation will seemingly always be considered categorically illegitimate and will consequently spark public unrest and opposition if enacted. Thus, there is a fundamental conflict between the motivation to prevent as much human suffering as possible and the motivation to safeguard as

much human liberty as possible. Reflecting on this, I think the appropriate question to ask is whether or not such a world is a desirable one to live in. Should Americans consider unhindered freedom in the context of an emergency more important than the lives that might be saved if those freedoms are temporarily suspended?

Like libertarianism, utilitarian approaches to public health have also found significant space in the ethics conversation. For the purposes of this paper, the inadequacies found in this approach revolved around the inability of the framework to reliably prioritize concerns of public health over other values. While such an issue may not be relevant when the conversation leaves the jurisdiction of the public health official and enters the world of elected officials, a framework that necessarily prioritized public health interests was deemed more appropriate for a public health official. The feature of varying importance of values in a utilitarian framework manifested itself in the motivations Americans cited for not complying with public health directives. For some Americans, the cost-benefit analysis was seemingly trivial such as the discomfort caused by the mask outweighing any benefit from wearing it. From a broader perspective, such a concern seems obviously wanting when put in the light of the far worse suffering that might have been eliminated had mask directives been fully complied with. However, other motivations were not so cut and dry. Many Americans cited economic concerns as the motivating factor. In other words, from the perspective of many Americans, full compliance with lockdown policies would have put their means of providing for themselves and their family. While clear answers to utilitarian concerns regarding the lockdowns are much harder to put forward, the concerns present in the context of masking and vaccines are much easier to interact with. As mentioned before, the sheer cost of human life that mask wearing could prevent obviously outweighs concerns of discomfort. When it came to vaccines, the main motivations that could be

categorized as utilitarian were those that considered the intervention to be useless and those that did not consider COVID-19 dangerous enough to warrant vaccination. As has been demonstrated, there is a strong evidence to support both the effectiveness of the COVID-19 vaccines and the severity of the pandemic.

The issue then revolves around deciding which concerns to put the highest value upon. It would be easy for many utilitarians to agree that in the face such evidence, mask and vaccination mandates would be justified if public compliance could not be acquired otherwise, and if the data discussed is correct, it is clear that many Americans would do nothing if left to decide for themselves. As with libertarianism, the tradeoff of such action would be public unrest and opposition. At this point, the utilitarian and libertarian motivations of the noncompliant share some overlap as the question revolves around the legitimacy of public health directives to prioritize the values of public health interests rather than those of individual Americans. Before navigating this question, it is necessary to touch on one more motivation behind American noncompliance, distrust.

Epistemic Factors in Noncompliance

Many Americans cited distrust of the government and public health information as reasons for not complying with public health directives. It is easy to see how such a phenomenon could underpin the behavior of those who cited libertarian or utilitarian reasons for noncompliance. If one does not consider the information they are receiving about the severity of the pandemic or the effectiveness of interventions to be trustworthy, there is not much reason for them to exercise their liberty in compliance or to act as if saving lives is more important than concerns ranging from convenience to livelihood. On a more fundamental level, it is natural to think that had all Americans trusted the information they had been given and taken it with due

seriousness, there would have been compliance such that mandates would have been unnecessary. This would have been characteristic of a unified effort that was regrettably not the case.

The issue of trust develops much greater import in the context of this paper when considered in the light of the proposed frameworks for justifying public health decisions. If the PHO is justified in accordance with their expert knowledge of the relevant issues, then what can the average member of the public point to in order to know the policy is justified and worthy of compliance? In libertarianism, no such problem arises since most individuals are able to discern when their liberty has been infringed upon or limited in some way. They can then determine which public health policies are legitimate based on the degree of its preservation of liberty. Similarly, utilitarian calculations are easy to understand by most and there is a general level of common ground as to what is important i.e. most people place a premium on human life and suffering. However, shifting the justification of public health policy to knowledge itself diminishes the access the ability of the public to determine whether any given policy is justified. Consequently, the question becomes centered upon trust and what can be done to bolster the public's trust. While such a task is more difficult than resorting to libertarian or utilitarian frameworks, I believe the issue of trust implied by the proposed framework is the true issue that public health ethics needs to reckon with.

Similarly to the inevitability of unrest stemming from libertarian and utilitarian opposition to public health policy, it seems natural to think that anyone who considers public health policy to be based on poor information or malicious intent is going to be extremely opposed to the enactment of such policies. Moreover, the complex nature of the issue of building trust and combating misinformation entails a lengthy process. Research has shown that in

addition to misinformation correction requiring a multifaceted approach, the effects of the interventions are often temporary and require repetition over an extended period of time.⁷³ When faced with an imminent danger such as what was posed by the COVID-19 pandemic, it is obvious that time is not a luxury. Consequently, it is incredibly unlikely that trust between doubting members of the public and health institutions can be forged in time to acquire free compliance. In such a dire situation, it seems that the only option available to prevent devastating amounts of lost life and human suffering is through public health mandates with compliance enforced with the power of the state. That such an option finds itself on the table is a testament to the severity of the gridlock our nation is facing. The idea of public health mandates is a delicate matter. The dangers of draconian use of force are apparent to all. Consequently, it is necessary to explore the ways in which these measures can be enacted in such a way that fosters both public trust and minimizes unrest.

Grounding Public Health Mandates and Minimizing Unrest

The first thing necessary for this discussion is establishing a grounding for the state's authority to ensure compliance through mandates. Such a grounding may be found in the political philosophy of John Locke. In the 14th chapter of his *Second Treatise of Government*, John Locke outlines an attribute of the state which he calls "prerogative power." Defining this, Locke writes, "The word 'prerogative' is the name for this power to act according to discretion, for the public good, without the support of the law and sometimes even against it." It is a power delegated to the state's executive, and it is intended to function in times of necessity in which ordinary law is insufficient or even harmful to the public good. The power itself is to conform to what Locke calls the "fundamental law of nature and government" which states that "All the

⁷³ Ullrich K. H. Ecker et al, "The psychological drivers of misinformation belief and its resistance to correction," *Nature Reviews Psychology*, vol. 1, pp. 13-29, 2022, <http://dx.doi.org/10.1038/s44159-021-00006-y>.

members of the society are to be preserved as much as may be.” In the event that the executive’s use of this power is controversial, Locke believes that “the dispute is easily decided by considering whether the disputed exercise of the prerogative tends to the good or to the harm of the people.”⁷⁴ This Lockian concept has clear applications to the current situation of public health ethics. Recalling the severe consequences of the pandemic, a death toll of over 1,000,000 lives over three years seems to appropriately fit within the parameters Locke sets for prerogative power. While something like mandated compliance with public health interventions does not easily fit with the ordinary process of governance, it does fit with the Lockian idea that extraordinary times call for extraordinary measures. Moreover, the data and research compiled thus far point to the idea that these public health policies effectively served the public good. Thus, from a Lockian perspective, mandated compliance with public health policies was called into service of the proper goal: serving the public good in extraordinary circumstances.

With a foundation for public health mandates set, it is time to explore the ways in which such measures can be most delicately enacted with an aim for garnering public trust and reducing unrest. While there are likely endless possibilities for how this might be achieved, this discussion will propose that the ideas of “deliberative mini-publics” and retrospective judicial evaluation may be able to help address concerns of trust as well as civil unrest. The application of deliberative mini-publics to health policymaking has been growing.⁷⁵ The basic idea of DMPs is that a forum comprised of members of the public is formed in order to deliberate upon a matter of public policy and decide what ought to be done.⁷⁶ The concept is similar that of a jury. The intent of such an assembly is to both to ensure democratic participation in issues of public

⁷⁴ John Locke, *Second Treatise of Government*, (Jonathan Bennett, 2017), 53.

⁷⁵ Giuseppe Schivone et al, “Epistocracy for online deliberative bioethics,” *Cambridge quarterly of healthcare ethics*, vol. 24.3, 2015, pp. 272-280, <https://doi.org/10.1017/s0963180114000590>.

⁷⁶ Schiavone et al, “Epistocracy.”

importance as well as ensuring focused, clearheaded discussion of all the relevant issues. The utilization of such a forum in the context of public health emergencies may serve to address the problems public health institutions are currently facing. Giving a space for a microcosm of the public to consider all the relevant details of the matter at hand places some measure of authority in the hands of the public rather than the fiat of government officials. Such forums could even allow for personal engagement with public health officials that now have the ability to explain each facet of the situation and cut through barriers of jargon. It is plausible to believe that this kind of an arrangement would allow for the clearheaded dialogue a public health emergency requires. Moreover, a DMP could be conducted in a swift enough manner to effectively address an issue needing quick action such as a pandemic. Consequently, deliberative mini-publics may be optimally positioned to both promote public trust in effective health policies by democratizing the process and ease the unrest caused by perceived authoritarianism.

Approaching the issue of public trust from another angle, retrospective judicial evaluation may allow for an underutilized means of acquiring public trust. In America, the judicial system already plays a role in ensuring that illegitimate use of state power is addressed. Its relevance to matters of public health policy was also displayed throughout the pandemic in a variety of court cases.⁷⁷ However, emphasizing the accountability of public health institutions to the courts may serve to cultivate deeper trust in public health institutions in the context of emergencies where prerogative power must be utilized. An accountability system such as the judiciary may help allay fears that the government will refuse to rescind its use of prerogative power once the crisis is over. It may also serve to address lingering concerns over bad-faith policies during the crisis. The retrospective assessment of a court is able to take into account all the data collected over the

⁷⁷ Michelle Mello and Wendy Parmet, "Public Health Law after Covid-19," *New England Journal of Medicine*, vol. 385.13, 2021, pp. 1153-1155, <https://doi.org/10.1056/nejmp2112193>.

course of the crisis along with the communications of public health officials that reveal intentions. A public that is aware that public health officials may be held fully accountable if they act in bad-faith is likely to grant more leeway to such officials in the middle of a crisis. Thus, emphasizing the accountability role that the judiciary has in protecting the public may constitute a helpful supplement to how the problem of public trust and unrest is solved.

To be clear, these are not definitive solutions to the problems public health institutions must reckon with. It is true that emergency situations can be used as excuses for government overreach. Some consider the way in which the Patriot Act was established as one such case. In short, there is risk whenever power becomes centralized. Looking at examples of such occurrences, critics of public health mandates are not unreasonable. However, it is possible that there are features unique to public health events that make such oversteps less likely. First, a public health emergency such as a pandemic is an inherently temporary threat. Eventually, the danger posed by a given disease will diminish to the point where the situation is no longer an emergency. This means that there is no justification for enacting policies to combat diseases that remain active indefinitely. In other words, it would be absurd to enshrine a public health intervention designed for a specific threat into law indefinitely. This is what happened in an example such as the Patriot Act. Secondly, public health emergencies are not subject to confidentiality and are public events. It would be quite strange for public health institutions to hide the data on a disease such that nobody really knows what it is happening. This element of a public health issue makes it categorically different than matters that pertained to the enacting of the Patriot Act. The public nature of a health emergency in terms of hospitalizations, observable symptoms, and deaths means that it would be incredibly difficult to maintain compliance with interventions once it is clear to most people that the emergency is over. If something like this did

happen, public health institutions would likely be quick to find themselves subject to what Locke would essentially describe as “the people taking the power back.”⁷⁸ Consequently, the fact that public health emergencies are public rather than private such as national security issues makes it less likely for prerogative power to be used once the emergency has ended.

This discussion has analyzed important events and phenomena associated with the COVID-19 pandemic in an effort to both gauge the response of public health institutions and explore what might be needed to improve future responses. As a result, it was determined that public health institutions should seek out frameworks for justifying interventions that give health-related scientific research a primary place. Such a move may provide both a more reliable means of justifying interventions as well as reduce concerns that public health policy is being determined by non-health-based factors such as political expedience. Additionally, analysis of data pertaining to both the willingness of Americans to comply and motivations for noncompliance suggested that preventing mass loss of life in another COVID-like situation will likely require mandated compliance with public health interventions. It was also determined that such mandates may be able to reduce public unrest if paired with deliberative mini-publics and an emphasis on retrospective judicial evaluation. While it is unlikely that any of these proposals can provide a perfect solution to the obstacles public health institutions face, given the sobering realities that have been discussed, they may be the best we can do.

⁷⁸ Locke, *Second Treatise*, 54.

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