

# IS THERE A PLACE FOR CHOICE IN CRISIS RESPONSE?

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*Abstract: In response to a crisis, policymakers face the decision of whether to enumerate specific actions the public must do or, instead, to aim at an overall outcome while leaving room open for choice. This essay evaluates the merits and demerits of crisis response that leaves room open for choice, with a particular focus on pandemic response. I evaluate two approaches: trades and offsets. Trades allow individuals or groups to exchange protection against harm or entitlement to engage in risky activity. Offsets allow the same actors to pay to mitigate the effects of decisions that increase risk for others. Choice-friendly approaches can free people to better align their actions with their values, harness local knowledge for better social outcomes, and act as natural experiments. However, they also are subject to objections, including negative externalities, agency problems, exploitation, and exacerbating inequality.*

KEY WORDS: pandemics, externalities, choice, offsetting, trade

## I. INTRODUCTION

On July 7, 2022, the Pew Charitable Trusts Research Center—one of the United States’ most respected social issue polling organizations—polled U.S. adults on the country’s response to the COVID-19 pandemic. Among the questions asked was whether the United States’ COVID-19 response had given the right amount of priority, too much priority, or too little priority to “respecting individuals’ choices.” Only 30 percent of respondents believed that the right amount of priority had been given. Forty-six percent believed that too little priority was given to respecting individuals’ choices, while 23 percent believed that respecting individuals’ choices had been given too much priority.<sup>1</sup>

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<sup>1</sup> Cary Funk et al., “Americans Reflect on Nation’s COVID-19 Response,” Pew Research Center, July 7, 2022, <https://www.pewresearch.org/science/2022/07/07/americans-reflect-on-nations-covid-19-response/>.

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Of course, public opinion polls are not ethical authorities.<sup>2</sup> Most people believing that the wrong amount of priority had been given to respecting individual choice or most people within that group also believing that we veered too far away from respecting individuals' choices, does not tell us that the United States got things wrong or that more should have been done to respect individuals' choices. What polls can do is raise questions and signal their public importance. Nearly half of respondents believing that too little priority was given to respecting individuals' choices indicates the public importance of evaluating the normative merits of policy strategies that could potentially have done more to respect choices, as compared to the strategies that were adopted.

Determining whether a greater place for choice could have been carved out as part of COVID-19 crisis response has implications beyond the COVID-19 pandemic as well. Most global crises<sup>3</sup> present options that allow for more or less individual choice. In the face of a world war, should we conscript soldiers or maintain a volunteer army and, if we conscript, should we allow some to serve in the place of others? If we run short of clean water or face climate catastrophe, should we specify which water uses and carbon-emitting activities are allowed, impose taxes on consumption and emissions, or use a cap-and-trade policy?

In this essay, I will examine policy options that might have allowed for greater individual choice in response to the COVID-19 pandemic and evaluate their ethical merits and demerits. Given my own expertise and the polling that prompted this analysis, many of the examples I discuss concern policy in the United States. However, I will also discuss transnational issues such as the global distribution of COVID-19 vaccines and therapies. While I will evaluate the ethical merits of specific arguments, this essay's goal is not to argue that more (or less) space should have been afforded for individual choice. Rather, my goal is to identify the ethical considerations that are relevant to decisions about whether to make space for individual choice as part of pandemic response. Furthermore, while this essay uses the COVID-19 pandemic as its organizing example, the policies and ethical considerations discussed have implications beyond this crisis. Many apply to other past or potential crises as well, including environmental crises, military conflicts, and natural disasters.

My discussion of choice centers on two approaches. One involves *trade*. Trades of protection allow some people or groups to transfer their entitlement to protective interventions to others in exchange for something else

<sup>2</sup> Govind Persad, "Public Preferences about Fairness and the Ethics of Allocating Scarce Medical Interventions," in *Interdisciplinary Perspectives on Fairness, Equity, and Justice*, ed. Meng Li and David Tracer (Cham: Springer, 2017), 51–65.

<sup>3</sup> Global crises can be defined in different ways, and arguing for one specific definition would go beyond my intended scope here. For a valuable discussion of some of the complexities of line-drawing in this area, see Jennifer C. Rubenstein, "Emergency Claims and Democratic Action," *Social Philosophy & Policy* 32, no. 1 (2015): 101–26. My focus here is on policy response to recognized crises rather than on the legal recognition or declaration of a crisis.

they value. In the COVID-19 pandemic, trades might involve some people or groups trading to others their place early in the queue for scarce vaccines or therapies. Trades of risk-taking entitlements, meanwhile, allow some people or groups to transfer to others their entitlement to engage in an activity that presents risk to themselves or others, such as keeping a business open or dining indoors.

The other approach involves *offsets*. Offsets allow some people or groups who wish to engage in activity that may exacerbate or fail to mitigate the risks posed by the crisis to engage in that activity by financially offsetting the burden that the activity imposes on the public. In the COVID-19 pandemic, offsets might involve paying a fee in order to engage in a risky activity.

After unpacking what it means to respect choice, I will discuss trades, both describing ways that trades have operated during the COVID-19 pandemic and other crises as well as discussing other ways that trades might be used. I then identify and respond to several objections to trade policies before doing the same for offsets. I next consider some more fundamental objections that choice runs counter to solidarity or to people's limited decision-making ability. Ultimately, I offer reasons why we might regard leaving room for choice as ethically desirable. We might regard leaving room for choice as valuable because choice has inherent value or because we believe that allowing individuals or groups to choose leads to better decisions than a top-down approach would. We might also regard choice as valuable because it creates natural experiments and policy variation that can be evaluated, allowing policies to be refined and improved over time.

## II. WHAT DOES IT MEAN TO RESPECT CHOICE?

The language of respecting choice is ambiguous between various values. We can conceptualize these values as leaving room for choice, not judging others' choices, and insulating choices from their consequences. The first value—leaving room for choice—is backed by both compelling inherent and instrumental reasons (discussed below). However, when people complain that policies have insufficiently respected choice, they often mean that policies have subjected choosers to judgment or that people have had to bear the consequences of their choices. We should be careful to distinguish cases where people are judged by others or must bear the cost of their choices from cases where people are subject to categorical prohibitions on choice.

Let's begin with leaving room for choice, which means that while policy-makers appropriately might set overall targets, they leave room for choice in determining how those targets are realized. During the COVID-19 pandemic, such targets might have included maintaining the rate of spread at a level that is steady rather than exponentially growing or maintaining the number of hospitalizations or deaths at a level that does not risk overwhelming the capacity of the health system and harming non-COVID patients. Rather than specifying precisely what decisions individuals or communities need to make

to reach the targets, leaving room for choice allows flexibility and experimentation in realizing those targets. You thus have a choice about *how* you participate in achieving the end, though not about *whether* you contribute to achieving the end. This leeway-oriented understanding of leaving room for choice mirrors the philosophical idea of imperfect duty.<sup>4</sup>

In contrast, not judging choice may be an attractive value to choosers, but that is not an appropriate expectation for public policy. Not judging choice means that choosers whose decisions pan out badly—for example, they impose unjustified risk on others or needlessly avoid activities that impose no risk—are not judged by others to have made a mistake, and so are not blamed or criticized. While norms of etiquette can define appropriate and inappropriate ways to blame or criticize others, expecting others not to judge one's choices is unreasonable. People who refuse to be vaccinated and then develop severe illness might appropriately be judged by others, even if they also should receive assistance. People who take precautions that impose undue burdens on others might also be appropriately judged.

Similarly, insulating choices from their consequences is not an appropriate general expectation for public policy. Defining appropriate public health targets is an apt topic for debate, but once appropriate targets are set, having choosers bear the costs of choices that obstruct efforts to reach those targets does not obviously fail to respect choice. For instance, if people who refuse to be vaccinated are then charged the cost of being tested more frequently, this does not disrespect their choice. Indeed, it might be seen as more respectful of choice, in that it recognizes choosers as morally responsible adults who can make their own decisions but must bear the cost of those decisions.<sup>5</sup> The same is true in cases where people take precautions that may have adverse consequences for themselves or others, such as refusing to work in person.

Under specific circumstances, people are not only entitled to make choices, but also to be accommodated in making those choices at public expense. Accommodations, however, are typically warranted in situations where choices are forced on people by circumstances outside their control. For instance, someone who cannot be vaccinated due to medical contraindications or cannot work in person for those reasons is entitled to reasonable accommodation. That does not make it unfair to have people bear the consequences of choices, such as choices to refuse vaccines or not to work in person, when those choices are discretionary rather than forced.

Some disagreements with proposals requiring choosers to bear the costs of their choices may, instead, concern the consequences of choice. For

<sup>4</sup> See Patricia Greenspan, "Making Room for Options: Moral Reasons, Imperfect Duties, and Choice," *Social Philosophy & Policy* 27, no. 2 (2010): 181–205.

<sup>5</sup> This idea is also developed in some of the literature on "luck egalitarianism" and related theories of distributive justice. See, e.g., Kok-Chor Tan, "A Defense of Luck Egalitarianism," *The Journal of Philosophy* 105, no. 11 (2008): 684, where he argues that "[a] just distributive arrangement ... should reflect persons' efforts and choices."

instance, some people who refuse vaccines may believe that their choice imposes few consequences, because they do not think vaccines are effective. Having them bear whatever the consequences of their choices prove to be, could be done either *ex ante* or *ex post*. *Ex ante* consequence-bearing is more practicable, but it involves making potentially mistaken assumptions about consequences. It uses the best information about the likely consequences of the choice in order to determine what consequences the chooser should be asked to bear. In contrast, *ex post* consequence-bearing bases the chooser's treatment on the actual consequences of their choice. For instance, *ex post* consequence-bearing would say that if people refuse vaccination and become ill, they might be deprioritized for access to hospital care.<sup>6</sup> If they spread disease to others at a higher rate, they might be held legally liable by those others.<sup>7</sup> *Ex post* approaches are, however, often regarded as logistically impracticable or excessively harsh.

Leaving room for choice and insulation from bearing the consequences of one's choices can blend into each other. On one view, room for choice always exists, even when choices are legally proscribed: proscription merely means that consequences become more severe. On another view, if a choice is subject to legal prohibition or criminalization rather than being taxed or subject to a fee, room is no longer left for that choice. This latter approach differentiates, for instance, alcohol taxes from Prohibition.

### III. TRADES

During the pandemic, both protection against risk and entitlement to engage in risky activities was typically allocated in a top-down fashion, based on public administrators' assessment of whose protection would best serve population health and—to a lesser extent—whose entitlement to take risks would better serve population health objectives. This top-down approach was adopted in multiple policy contexts. It was used during individual-level allocation of medical interventions, such as vaccines and therapies, as well as other forms of protection, such as personal protective equipment. It included decisions about who was offered accommodations permitting remote work, education, and other activities that would otherwise have to be done in person as well as decisions about which firms and organizations were incentivized or directed to install equipment or otherwise rearrange their activities to mitigate pandemic risk, such as by installing high-quality ventilation or shifting activities like dining and outdoor gatherings. It also included subnational allocation of medical interventions

<sup>6</sup> See Govind Persad and Emily A. Largent, "COVID-19 Vaccine Refusal and Fair Allocation of Scarce Medical Resources," *Journal of the American Medical Association Health Forum* 3, no. 4 (2022); Christopher Robertson, "What the Harm Principle Says about Vaccination and Health-Care Rationing," *Journal of Law and the Biosciences* 9, no. 1 (2022).

<sup>7</sup> Dorit Rubinstein Reiss, "Compensating the Victims of Failure to Vaccinate: What Are the Options," *Cornell Journal of Law and Public Policy* 23, no. 3 (2014): 595–633.

and financial resources among states or provinces in a federal system. In addition, it included international allocation by organizations such as COVID-19 Vaccines Global Access (COVAX), which was a collaboration between different nongovernmental organizations that worked to procure vaccines from manufacturers and deliver them to countries, especially countries that lacked the financial resources to make direct arrangements with manufacturers for early vaccine receipt.

Alternatives to this top-down approach were suggested. Most prominently, in early 2021 when vaccines remained extremely scarce, a distinguished group of economists argued in *Science* that we should create mechanisms for “cross-country vaccine exchange.”<sup>8</sup> They observed that COVAX’s allocation mechanism could lead to outcomes in which “countries may end up with vaccine allocations that are not optimally matched to their needs,” because “some countries may have difficulty handling vaccines requiring ultracold storage or may be willing to trade off a small reduction in efficacy for a large increase in quantity” and those “allocated several vaccines may prefer to simplify logistics by consolidating on one or two.”<sup>9</sup> The authors explain that a mechanism for vaccine exchanges “would enable countries to engage in mutually beneficial trades of vaccine courses” and that “[c]entralized market clearing will help aggregate the willingness of all countries to trade, thus maximizing gains from trade and minimizing waste of scarce vaccine courses.”<sup>10</sup> They also explain that “[s]imilar mechanisms have been used successfully in other contexts where gains from trade are substantial, yet traditional cash markets are inappropriate and fairness concerns are paramount,” referencing research on the use of market design to allow food banks to exchange donations.<sup>11</sup>

As with the allocation of vaccines, the design and enforcement of closures was also typically done in a top-down way. Most often, businesses were closed by sector and geography, with states typically closing all businesses of a particular type regardless of details. Neighboring cities and states often had different rules, leading to identical businesses and venues being open in one state but closed in another. Other restrictions that fell short of closures, such as capacity limits and social-distancing requirements, were also typically designed top-down. It would have been possible, though, to imagine designs based on trades that deviated from either the full closures seen in some states or the unrestricted openings seen in others. For instance, businesses that were permitted to remain open in low-restriction states but were prepared to go remote, could have traded away their right to remain open to other businesses in bordering states with more restrictions.

<sup>8</sup> Juan Camilo Castillo et al., “Market Design to Accelerate COVID-19 Vaccine Supply,” *Science* 371, no. 6534 (2021): 1107–9.

<sup>9</sup> Castillo et al., “Market Design.”

<sup>10</sup> Castillo et al., “Market Design.”

<sup>11</sup> Castillo et al., “Market Design.”

## IV. VACCINES AND THERAPIES

I next consider whether allowing trades of entitlements to secure protection or take risks could better serve individual interests and, potentially, population health, focusing on two areas where trades might be possible. The first area (discussed in this section) concerns the allocation of vaccines and therapies. The second (discussed below in [Section V](#)) concerns deciding which businesses and other activities remain open and who may participate in in-person activities.

At the international level, organizations like COVAX initially allocated vaccines to countries on the basis of national population and later attempted to incorporate need-based criteria.<sup>12</sup> Country populations, however, had both unequal interest in vaccines and unequal non-COVID-19 needs. Many countries received vaccines that they struggled to distribute, even while others faced shortages of vaccines.<sup>13</sup> An alternative to this situation would have been vaccine trading: countries set to receive vaccines from COVAX could relinquish their entitlement to the vaccines they would have received under COVAX's allocation arrangements in exchange for receiving other benefits they viewed as more important.

Those economists suggesting vaccine trading as an alternative to top-down allocation by COVAX focused only on vaccine-for-vaccine trades, such as trading away access to a type of COVID-19 vaccine that would be locally unacceptable in exchange for later delivery of other COVID-19 vaccines that were more locally acceptable. Other types of trades, however, are also possible. For instance, countries could be permitted to exchange vaccines for other types of pandemic countermeasures, such as therapies, ventilation improvements, or personal protective equipment, or for infrastructure support, such as health personnel or equipment for vaccine delivery. Looking more broadly, they could also have been permitted to exchange vaccines for countermeasures against local health threats other than the COVID-19 pandemic. For instance, they could have been allowed to exchange COVID-19 vaccines for other types of vaccines; for antimalarials, anti-tuberculosis, or anti-HIV drugs; or for investment in health system improvements. Most broadly, they could have been permitted to exchange their entitlement to vaccines or their vaccine stocks for all-purpose resources such as cash.

Trading at a country level might be attractive because of differential risks. In developed countries, the risk of COVID-19 death and hospitalization stands out compared to other risks residents face: COVID-19 "was a top

<sup>12</sup> Lisa M. Herzog et al., "Covax Must Go Beyond Proportional Allocation of Covid Vaccines to Ensure Fair and Equitable Access," *British Medical Association* 372 (2021).

<sup>13</sup> Ezekiel J. Emanuel and Govind Persad, "This Is the Wrong Way to Distribute Badly Needed Vaccines," *New York Times*, May 24, 2021, <https://www.nytimes.com/2021/05/24/opinion/vaccine-covid-distribution.html>.

5 cause of death in every age group aged 15 years and older.”<sup>14</sup> In developing countries, however, other risks may be more substantial than COVID-19.<sup>15</sup> Trading one million COVID-19 vaccines for one million doses of antimalarial, anti-TB, or HIV medications or for one hundred million dollars might be better for both sides of the trade—if it weren’t, the trade would not happen. Conversely, the Philippines proposed to trade health personnel assistance for needed vaccines: they offered to “let thousands of its health-care workers, mostly nurses, take up jobs in Britain and Germany if the two countries agree to donate much-needed coronavirus vaccines.”<sup>16</sup> In addition, “the Philippines was open to lifting the cap in exchange for vaccines from Britain and Germany, which it would use to inoculate outbound workers and hundreds of thousands of Filipino repatriates.”<sup>17</sup> Similar vaccine trades might also be possible at the subnational level. For instance, states in the U.S. with high vaccine demand, such as California, could have received vaccines early from low-demand states in the South in exchange for assistance with other local problems. Subnational trading also represents an alternative to having national decision-makers design the initial allocation to be demand-responsive rather than purely based on population.

In contrast to vaccine-for-vaccine or vaccines-for-personnel trades, economists who designed vaccine-trading markets typically assumed that direct vaccines-for-cash trades would be inappropriate, even though money is typically the medium of exchange. An example of this assumption is Alex Tabarrok’s assertion that “[t]rade wouldn’t be vaccines for dollars which could introduce ethical and agency issues,”<sup>18</sup> although Tabarrok does not explain what ethical issues trading vaccines for dollars would present. Other goods are commonly traded for cash: rather than directly trading export goods for import goods, imports and exports are bought and sold using money as an exchange medium. Trades might even have been possible at the individual level, with some people in high-priority groups choosing to “trade back” in line in order to allow a loved one to receive a vaccine earlier.

I will use vaccine trading as my core example, although many other trades that involve medicine or crisis-response technology, such as personal

<sup>14</sup> Meredith S. Shiels et al., “Leading Causes of Death in the U.S. During the COVID-19 Pandemic, March 2020 to October 2021,” *Journal of the American Medical Association Internal Medicine* 182, no. 8 (2022): 883–86.

<sup>15</sup> David Bell and Kristian Schultz Hansen, “Relative Burdens of the COVID-19, Malaria, Tuberculosis, and HIV/AIDS Epidemics in Sub-Saharan Africa,” *American Journal of Tropical Medicine and Hygiene* 105, no. 6 (2021): 1510–15.

<sup>16</sup> Neil Jerome Morales, “Philippines Offers Nurses in Exchange for Vaccines from Britain, Germany,” *Reuters*, February 23, 2021, <https://www.reuters.com/article/us-health-coronavirus-philippines-labour/philippines-offers-nurses-in-exchange-for-vaccines-from-britain-germany-idUSKBN2AN0WL>.

<sup>17</sup> Morales, “Philippines Offers Nurses.”

<sup>18</sup> Alex Tabarrok, “Towards a COVAX Exchange,” *Marginal Revolution*, July 12, 2021, <https://marginalrevolution.com/marginalrevolution/2021/07/towards-a-covax-exchange.html>.

protective equipment, present similar issues. What issues might vaccine trades present, whether they are for other vaccines, other COVID-19 interventions, other health interventions, or cash? Six possible objections come to mind, although none is necessarily a decisive reason to reject the appropriateness of trading. These are externalities, agency problems, disvalue of options, crisis exceptionalism, exploitation, and exacerbation of inequalities.

### A. Externalities

Externality problems arise if allowing a potential vaccine recipient to trade away vaccines affects third parties. This problem is exemplified by the approach advocated by Eli Cahan, a medical student who was eligible in 2021 for the COVID-19 vaccine, but “gave up [his] spot in the vaccine line.”<sup>19</sup> Cahan argues that he and other eligible health care and frontline workers should give up their spots in order to prioritize people at greater risk of serious COVID-19 complications if they were to become infected: “Just as an able-bodied person might give up their seat on the crosstown bus to someone who needs it more, those of us at low risk of severe Covid-19 illness can trade our places in line with those at higher risk.”<sup>20</sup> While Cahan calls for altruistic sacrifice, similar considerations would apply to trades for money.

Cahan, however, overlooks the problem of externalities. If he and other medical students are being prioritized so that they can help provide needed medical services in the event that the pandemic overwhelms health systems, it does not make sense to then allow them to trade away that priority. The justification for prioritizing medical students is that doing so will have positive externalities for others; allowing them to trade away their priority would not have the same positive effects. Likewise, prioritization based on the goal of mitigating viral spread, as with “ring vaccination” used in other pandemics,<sup>21</sup> aims to prevent negative externalities. For instance, if COVAX seeks to reduce global viral circulation and decrease the development of harmful variants, allowing developing countries to trade vaccines to developed countries where they might be used as boosters or used in already highly protected people would not serve that goal. Vaccinating people in developing countries can reduce negative global externalities in ways that other interventions—even interventions that potential recipients in developing countries might prefer—do not.

Permitting such trading, however, need not always produce negative externalities. Many health workers were able to protect themselves with personal protective equipment and high-quality ventilation at work. Others

<sup>19</sup> Eli Cahan, “I Gave Up My Spot in the Vaccine Line. Maybe You Should Too,” *Undark*, February 11, 2021, <https://undark.org/2021/02/11/vaccine-line-gave-up/>.

<sup>20</sup> Cahan, “I Gave Up My Spot.”

<sup>21</sup> Chad Wells et al., “Harnessing Case Isolation and Ring Vaccination to Control Ebola,” *PLOS Neglected Tropical Diseases* 9, no. 6 (2015).

may have known that they were recently previously infected and thus at lower risk of near-term reinfection. If their family members did not have similar protections or were at higher personal risk and became ill, however, those health care workers would be pulled away from work to care for their family members. Allowing health workers to trade within their own families could have potentially better drawn on their local knowledge of who in their families was least placed to protect themselves or would require the most care if infected.

In contrast to the case of health workers, if an individual, group, or nation is prioritized for reasons of reciprocity rather than their capacity to help others, there is little reason to be concerned about negative externalities. It therefore makes sense to allow trading when groups—such as essential workers, health workers, vaccine trial participants, or those who suffered historical injustice—are prioritized in recognition of their past contributions or what they previously endured.<sup>22</sup> Just as someone is permitted to trade away their year-end bonus for goods they value more, the same should be true for a reciprocity-based vaccine entitlement.

Finally, if a recipient at high risk of severe outcomes if infected prior to vaccination is being provided with vaccines in order to preserve health system capacity, the externality issues are somewhere in between those presented by health worker priority and those presented by reciprocity-oriented prioritization. If allowing the eligible recipient to trade their entitlement would worsen overall health system pressures by leaving the recipient exposed to serious illness, this is a compelling externality-based reason to prohibit trading. Some might argue, however, that a candidate should be able to trade their risk-based vaccine entitlement if they also agree to waive their claim to use scarce health system capacity if infected.<sup>23</sup> In practice, however, it may be impractical to enforce such waivers, since enforcement will mean denying someone beneficial medical care that they want and to which they would have the strongest claim absent the waiver. Some might also argue that it would be unethical to enforce the waiver because the claim to be saved is unwaivable.<sup>24</sup>

### *B. Agency problems*

Agency problems, which Tabarrok references in his analysis of vaccine trading, arise at the level of states or nations.<sup>25</sup> In countries that lack effective

<sup>22</sup> See, e.g., Xavier Symons, Steve Matthews, and Bernadette Tobin, "Why Should HCWs Receive Priority Access to Vaccines in a Pandemic?" *BMC Medical Ethics* 22, no. 1 (2021): 1–9, in which they review priority arguments based on reciprocity.

<sup>23</sup> A similar suggestion is made in Christopher Robertson, "The Split Benefit: The Painless Way to Put Skin Back in the Health Care Game," *Cornell Law Review* 98 (2013): 921–63.

<sup>24</sup> See the discussion in Michael Otsuka, "Review: Kamm on the Morality of Killing," *Ethics* 108, no. 1 (1997): 197–207. Otsuka's discussion, however, concerns waivers of the right not to be killed rather than a putative right to be saved.

<sup>25</sup> Tabarrok, "Towards a COVAX Exchange."

oversight of high-level decision-makers, decision-makers who control vaccines may elect to trade vaccines away in exchange for fungible and accumable goods such as cash, then siphon off some or all of the cash for private purposes. Agency problems are not unique to vaccine trading. Corrupt decision-makers could also sell vaccines domestically for cash or invite foreign buyers to enter the country to purchase vaccines. Vaccine trading, however, increases the risk of corrupt sales or trades by allowing a corrupt seller to reach a larger market. Restricting vaccine trading to non-cash goods can be helpful in mitigating agency problems. Allowing vaccine trading for other health benefits could helpfully mitigate agency problems, since corrupt decision-makers do not stand to benefit privately from having a supply of antimalarials or a stronger health system.

### C. *Disvalue of options problems*

Disvalue of options problems arise because the ability to trade vaccines for other goods means that one can then be pressured to do so. As Debra Satz observes in the context of kidney markets, the existence of a kidney market could leave those who are unwilling to give up their kidneys with “less effective choices in so far as they will no longer be able to find reasonable loan rates without mortgaging their organs.”<sup>26</sup> For instance, rather than being able to obtain needed medicines or services for free or at low cost due to inability to pay, potential vaccine recipients may be pressured to give up their vaccine entitlements in order to obtain needed goods. These problems are less likely to arise if trading is restricted to a smaller set of goods, such as vaccine-for-vaccine trades.

### D. *Crisis exceptionalism*

Crisis exceptionalism maintains that the purpose of COVID-19 vaccines—and entitlements to be vaccinated—is to stem the harm of the COVID-19 pandemic specifically, not to make the recipient better off or better protected against harm overall. One version of the exceptionalist objection would therefore view vaccine trading as wrongful use because it is contrary to the vaccine’s purpose.<sup>27</sup>

The exceptionalist position is more challenging than the others to understand, however, because it is not clear who is harmed by vaccine trades. Externality and agency problems involve harm to society; disvalue of options problems involve harm to the vaccine recipient. The objective of distributing vaccines is to prevent harm from the pandemic. Vaccinating

<sup>26</sup> Debra Satz, “The Moral Limits of Markets: The Case of Human Kidneys,” *Proceedings of the Aristotelian Society* 108, no. 1 (2008): 269–88. For a similar example, see Otsuka, “Review: Kamm on the Morality of Killing,” 206n17, where he discusses the idea that “a convenience clerk is better off without the power to open the safe at night.”

<sup>27</sup> Dan W. Brock, “Separate Spheres and Indirect Benefits,” *Cost Effectiveness and Resource Allocation* 1, no. 1 (2003): 1–12.

people is not inherently important, but is only a means to preventing harm. If allowing lower-risk people to be vaccinated ultimately prevents more overall harm, even if not from COVID-19, sale or trade of the vaccine can be justified. The ethical issues here are parallel to those raised in other contexts, such as museum “deaccessioning”—that is, selling artworks.<sup>28</sup> If a museum seeks to make a type of art accessible, deaccessioning can be justified in order to realize that overall goal. Even if access to specific pieces of art decreases, overall access increases. The same might have been true had COVAX traded away or sold some vaccines in order to fund greater overall vaccine delivery.

### *E. Exploitation*

A similar argument from those who hold vaccine trading to be exploitative due to unfair bargaining conditions likewise has limited force. People and countries may be better off if they engage in trades with unequal benefits than if they are completely barred from trading. Regulations on the terms of trades (such as minimum wage laws) can sometimes prove useful,<sup>29</sup> and so it could likewise be useful to regulate vaccine trading as well. But completely barring trades is difficult to justify. Outsiders to a vaccine trade might allege that the trade is exploitative, but such assumptions may in turn reflect factual mistakes, such as assuming that a grandparent is invariably at much higher COVID-19 risk than her grandchild. Unless the reason for barring the trade is to prevent a negative externality, such as pressure on hospital capacity, it is difficult to justify prohibiting a grandparent from sacrificing her place in the vaccine line to her grandchild. She may have private information or values that the regulator lacks. For instance, she may be near death regardless of whether she contracts COVID-19, whereas her grandchild may have a rare medical condition that increases risk from COVID-19.

### *F. Making inequality vivid*

The objection that vaccine trades make inequality unacceptably vivid is not ethically compelling. If it is troubling that some people face so many health threats that it is rational for them to trade away COVID-19 vaccine access in order to better protect themselves against other threats, the answer should be to address inequalities that cause background health threats, not debar people from protecting themselves. As Satz puts it in a related context:

[K]idney sales do not *cause* the inequalities in our world between the haves and the have-nots. Rather, like a mirror, they reflect the current

<sup>28</sup> See Brian L. Frye, “Against Deaccessioning Rules,” *Creighton Law Review* 53 (2020): 461–84.

<sup>29</sup> Alan Wertheimer, “Review: Terrance McConnell, *Inalienable Rights*,” *Law and Philosophy* 20, no. 5 (2001): 541–51.

underlying inequalities in our social world. If we do not like the image of inequality and human vulnerability that this mirror holds up to us, we do not change that image by breaking the glass.<sup>30</sup>

With or without vaccine trades, inequality is likely to persist. Some fear that the COVID-19 pandemic may end up taking a course similar to diseases like polio or malaria, where the threat of COVID-19 is largely defanged in the developed world but continues to cause harm and cost lives in the developing world.<sup>31</sup> These disparate outcomes seem unlikely, in part because inexpensive, highly effective measures for combating the pandemic—most prominently, vaccines—have been resisted on political grounds in the developed world, while more widely taken up in developing countries. For instance, vaccine uptake has been far higher in India, China, Southeast Asia, and much of South America than in many Eastern European nations.<sup>32</sup>

It is also worth considering whether we should be distinctively concerned about the *unequal impacts of the COVID-19 pandemic*, as opposed to concerned about the fact that *the world is unjustly unequal*. Imagine, for instance, that one faces a choice between (a) eradicating or even halving the harms of malaria or (b) equalizing COVID-19 burdens between the developed and developing world. Mitigating malaria harms would likely better prevent overall harm and reduce overall health inequality. Yet much of pandemic response has seemed to view addressing COVID-19 disparities as more important and even worth sacrificing overall health response for.<sup>33</sup>

Why might people in wealthy nations view addressing COVID-19 in developing countries as more important than addressing malaria or tuberculosis in those countries? One explanation is self-interest: to reduce the development of COVID-19 variants. Another involves the seductive pull of sympathy, feeling sorry for others who do not have what one has, rather than empathy, feeling upset at the bad situation in which others find themselves. People in the developed world recognize COVID-19 as a threat in their own lives, which generates pressure to equalize COVID-19 treatment *access* between the developed and developing world, even when COVID-19 may be a less urgent local health threat than other sources of harm in the developing world. In contrast, people in the developed world do not face threats from malaria, creating no egalitarian pressure to improve access to antimalarials; access to antimalarials is thus seen through a humanitarian rather than an egalitarian lens.

<sup>30</sup> Satz, "The Moral Limits of Markets," 280.

<sup>31</sup> Richard L. Oehler and Vivian R. Vega, "Conquering COVID: How Global Vaccine Inequality Risks Prolonging the Pandemic," *Open Forum Infectious Diseases* 8, no. 10 (2021).

<sup>32</sup> "Coronavirus (COVID-19) Vaccinations," *Our World in Data*, August 8, 2022, <https://ourworldindata.org/covid-vaccinations>.

<sup>33</sup> For a critique of this tendency, see Kaja Abbas et al., "Routine Childhood Immunization During the COVID-19 Pandemic in Africa: A Benefit–Risk Analysis of Health Benefits versus Excess Risk of SARS-CoV-2 Infection," *The Lancet Global Health* 8, no. 10 (2020): e1264–e1272.

The possibility of trading may also exist for novel antiviral and antibody therapies that reduce hospitalization after a vaccine is received. Some have argued that we should strive for fair global distribution of these therapies, such that access does not depend on geography or wealth.<sup>34</sup> This approach, however, confuses the laudable goal of improving *overall* global health *outcomes*—in particular, outcomes for disadvantaged people—with the different goal of equalizing access to each and every *means* that might be used to improve health.<sup>35</sup> A focus on equalizing means has been popular in global health advocacy and is often identified with the work of luminaries such as the late Paul Farmer. Equalization of means implies that if some intervention—such as antivirals, mRNA vaccines, or extracorporeal membrane oxygenation for severely ill patients—becomes the standard of care in a developed country, it should become the standard of care worldwide, but this approach makes little ethical sense. People in developing countries face different sets of problems than do people in developed countries. Rather than attempting to distribute each medical intervention identically to all, the goal should be to marshal available interventions to help people attain better health outcomes, even if doing so leaves some means of health improvement more accessible in some countries than in others.

## V. DISEASE-SPREADING ACTIVITIES

At various times during the COVID-19 pandemic, most countries limited access to certain activities that could spread disease, such as closing indoor dining or “nonessential” businesses; capping event capacity; or requiring attendees to wear masks, be vaccinated, or be tested. These interventions were motivated by the goal of reducing COVID-19 spread and ensuing harms.

In-person interactions that potentially spread COVID-19 can be conceptualized as akin to other activities that produce negative externalities, such as pollution. This suggests the plausibility of using choice-friendly approaches to mitigate these externalities, as is done in pollution policy, rather than regulating specific activities in a “command and control” mode.<sup>36</sup> Choice-friendly approaches include Pigouvian taxes (discussed in Section VI below), which require those who produce externalities to pay taxes that can be used to offset the externalities, and cap-and-trade approaches, which cap the total quantity of a harmful output that can be produced and assign tradable permits to emit the harmful output.

<sup>34</sup> Peter J. Hotez et al., “Global Public Health Security and Justice for Vaccines and Therapeutics in the COVID-19 Pandemic,” *EClinicalMedicine* 39 (2021).

<sup>35</sup> Govind C. Persad and Ezekiel J. Emanuel, “The Case for Resource Sensitivity: Why It Is Ethical to Provide Cheaper, Less Effective Treatments in Global Health,” *Hastings Center Report* 47, no. 5 (2017): 17–24; Govind C. Persad and Ezekiel J. Emanuel, “The Ethics of Expanding Access to Cheaper, Less Effective Treatments,” *The Lancet* 388, no. 10047 (2016): 932–34.

<sup>36</sup> Compare Kian Mintz-Woo, “Carbon Pricing Ethics,” *Philosophy Compass* 17, no. 1 (2022).

How would choice-friendly approaches be deployed during a global crisis? Consider large indoor gatherings as an example. Under a cap-and-trade approach, a large indoor gathering could be conducted by purchasing “opening credits,” akin to a tradable emissions permit, from other businesses that are otherwise entitled to be open but agree to close for the same length of time. Cap-and-trade approaches could even be used on a more “micro” level. For instance, some have conceptualized the COVID-19 risk involved in certain activities, such as indoor dining or attending daycare, in terms of “microcovids.”<sup>37</sup> Rather than closing restaurants or daycare centers, restaurant and daycare attendees might instead be required to solicit additional credits from others to offset the “microcovids” associated with their in-person activities.

People might object that these sorts of approaches would exacerbate inequities. For instance, the cap-and-trade approach would mean that only wealthy people could host large indoor gatherings. However, it is important to differentiate unequal outcomes from unjust ones. Greater wealth typically enables someone to engage in more activities than others regardless of whether a cap-and-trade approach is being used. The need to obtain credits is hardly the only cost associated with a large indoor gathering: catering, table settings, and larger venues also make larger gatherings costlier than smaller ones under normal circumstances.

Meanwhile, if some people have a normative claim to engage in activities that require many microcovids of risk, such as living in a congregated setting, they could receive an individual allotment of tradable credits that allows them either to continue that activity or to change their activity patterns and keep the subsidy for other purposes. This is parallel to some proposals to assist rural residents with high energy needs who might be disadvantaged by carbon emissions controls.<sup>38</sup>

## VI. OFFSETS AND PIGOUVIAN TAXES

Pigouvian taxes or offsets, which require those who engage in harmful activity to offset the effects of their activity, could be used instead of cap-and-trade approaches. For instance, gatherings over a certain number of people could be subject to a per-attendee, per-hour Pigouvian tax that would be used to offset negative externalities such as expected spread. The tax could be adjusted according to additional factors beyond the number of attendees. For instance, outdoor gatherings might pay little or no tax, while indoor gatherings in poorly ventilated spaces might be subject to higher taxes.

<sup>37</sup> Samuel Finnikin and David J. Spiegelhalter, “What Is My Covid Risk?” *British Medical Journal* 372 (2021).

<sup>38</sup> Nikhar Gaikwad, Federica Genovese, and Dustin Tingley, “Creating Climate Coalitions: Mass Preferences for Compensating Vulnerability in the World’s Two Largest Democracies,” *American Political Science Review* 116, no. 4 (2022): 1165–83.

Offsetting is widely used to address environmental externalities, with offsets often used to mitigate the unavoidable carbon impact of travel. No similar proposals have reached widespread popularity for COVID-19 offsetting. The only discussion I could find (as of this writing) of COVID-19 offsetting was a post on the Effective Altruism Forum that generated only one reply.<sup>39</sup> This is a striking lacuna, given that both the COVID-19 pandemic and climate change are global harms that result from the effects on others of individual activity. The design of offsetting would seem similar for each. Someone who wants to engage in an activity that presents some degree of avoidable risk, such as traveling overseas, might offset the risk of COVID-19 harms associated with the activity by funding initiatives that seek to mitigate COVID-19 harm, such as increasing access to vaccines and therapies and increasing the availability of resources such as ventilation.

The objections that might be raised against practices offsetting COVID-19 harms resemble objections that might be raised against carbon offsets. One objection is that the activity of spreading COVID-19 to others causes direct harm and the offset may not be able to directly compensate the person who is harmed. However, this is also true with carbon emissions. For instance, someone who travels by plane and thereby causes carbon emissions by doing so can be seen as causing harm, even though it is not clear who they are harming; their activity of offsetting could prevent harm, albeit not to the exact same person their activity harmed. Someone who travels by plane and thereby causes some spread of COVID-19 to others likewise causes harm to others, even though it is not clear which people they may have harmed.

This objection relates to a persistent ethical quandary: How much may we expose one another to harm in the course of our everyday activities?<sup>40</sup> Many everyday activities, such as driving, risk harm to others. Even activities such as writing a paper or sending an email cause harm to others by producing carbon emissions. Initially during the COVID-19 pandemic, even sophisticated philosophers suggested that we had a strict obligation not to expose each other to COVID-19, and so saw the situation in terms of doing harm that could not be offset.<sup>41</sup> Some continued to make these suggestions in prominent venues as the COVID-19 pandemic progressed, even after the advent of vaccines. For instance, one physician-influencer claimed that it is ethically impermissible to be part of a transmission chain that leads to another person dying or becoming seriously ill.<sup>42</sup> This view is starkly

<sup>39</sup> Ben, "Covid Offsets and Carbon Offsets," *Effective Altruism Forum*, July 23, 2020, <https://forum.effectivealtruism.org/posts/tr29ggPnqaXqQc3Xi/covid-offsets-and-carbon-offsets>.

<sup>40</sup> Johann Frick, "Contractualism and Social Risk," *Philosophy & Public Affairs* 43, no. 3 (2015): 175–223.

<sup>41</sup> See Alexander Guerrero, "Is It Fair to Gamble with Other People's Lives During a Pandemic?" *The Star-Ledger*, March 23, 2022, <https://www.nj.com/opinion/2020/03/is-it-fair-to-gamble-with-other-peoples-lives-during-a-pandemic.html>, who argues that "it's never cool to impose risks on others."

<sup>42</sup> Denise Dewald, MD, Twitter, [https://web.archive.org/web/20210820061042/https://twitter.com/denise\\_dewald/status/1428555753439301635](https://web.archive.org/web/20210820061042/https://twitter.com/denise_dewald/status/1428555753439301635).

inconsistent with the way we think about other harm-producing activities. When we drive, fly, email, or tweet, we also cause harm to others or risk doing so. We may sometimes regard ourselves as having an obligation to offset the harm that we cause, though, such as when the risk involved in the socially sanctioned activity is higher than should be permitted.

Another example of offsetting was adopted at a few colleges and universities after the wide availability of vaccines. Rather than the more common approaches of either making vaccination a condition of attendance or permitting attendance irrespective of vaccination, those institutions charged an extra fee to unvaccinated students.<sup>43</sup> This approach served to offset some of the financial and other costs imposed by unvaccinated students.

It is murkier whether offsetting should be permitted when someone proposes to set back the interest of others by cutting ahead in the line for a scarce good.<sup>44</sup> Even if we endorse allowing a previous vaccine-trial participant to trade their reciprocity-based entitlement to early vaccination to another private individual, we might not think that a wealthy person should be able to directly purchase an entitlement to vaccines from the government. This raises an ambiguity about how to classify governmental provision of vaccines. In some cases, governments sell assets, such as governmental lands, in order to raise revenue rather than to fulfill a direct duty to potential purchasers. Where assets are being sold purely to raise revenue, someone outbidding others in order to obtain the assets presents no ethical problem. In the case of scarce medical resources, however, governmental provision might be seen as fulfilling a direct duty rather than raising revenue, and so the government would not have moral permission to allow others to cut ahead.

## VII. OBJECTIONS TO CHOICE

One common and forceful objection to choice in general is that people are poor choosers and would thus be better off if they were simply told or required to do what is best for them. This view is common in behavioral economics. A related objection is that even if people are capable of making choices that serve their ends, they find a profusion of choices exhausting, because ordinary people are not virologists or health economists.

There is much truth to the objection that individuals often struggle to make choices and find them exhausting, but this is hardly a decisive

<sup>43</sup> Scott Neuman, "Being Unvaccinated for COVID Will Cost Students at a Small College an Extra \$750," *National Public Radio*, August 11, 2021, <https://www.npr.org/sections/coronavirus-live-updates/2021/08/11/1026666932/unvaccinated-covid-college-students-west-virginia-750-fee>.

<sup>44</sup> Alan Levine, "Let the Ultra-Rich and Influential Skip the Line for Covid-19 Vaccines? Hear Me Out," *Stat News*, December 22, 2020, <https://www.statnews.com/2020/12/22/let-the-ultra-rich-and-influential-skip-the-line-for-covid-19-vaccines-hear-me-out/>.

objection to choice-friendly proposals. Much of the research suggesting that choice can be exhausting involves situations where a surfeit of choices is offered. Yet choice-friendly proposals could include a curated menu of reasonable options rather than a surfeit of options.<sup>45</sup> Indeed, this is often how options are handled in medical treatment contexts. Rather than a patient being required to receive one specific type of treatment, one is given a set of reasonable options that fall within the standard of care. Sometimes, patients are also given the option to be randomized into a clinical trial that would compare different options.

Analogously, a choice-friendly proposal might allow a business, for instance, to select between a variety of different mitigation options, ranging from options that focus on outdoor activities to those that focus on getting workers vaccinated or that focus on conducting more activities remotely. The business could even opt to be randomized to a study that tests which of a variety of different mitigation options is most effective at reducing harm from COVID-19. While I use businesses as the example here, a similar set of choices could be offered to localities or even countries.

Another objection to choice is that it will interfere with solidarity and the idea that everyone is “in the same boat.” This objection confuses the symbolic solidarity of everyone doing the same thing—for instance, everyone staying home or everyone wearing a mask—with the type of solidarity that we should care about, namely, taking the needs and interests of others into account and striving to realize outcomes that serve their needs and interests. Common purpose should not be confused with identical realization of that purpose.

Yet another objection is that choice may exacerbate inequality. Allowing countries to trade vaccines may make both wealthier and poorer countries better off, but the gains from trade may flow more substantially to the wealthier countries than to the poorer ones. The wealthier countries may be able to use their quicker access to vaccines to restart their economies more quickly and retain much of those economic gains for themselves. Even though the poorer countries may also be better off if trade is permitted, they may not be as well off as they potentially could have been. This is a familiar concern frequently raised about trade and it is not unique to trade in vaccines. It is not clear that this concern is better addressed by prohibiting choice and requiring countries to receive the vaccines they have been assigned rather than by adopting other policies that aim to assist poorer countries. For instance, allowing trade and then using the proceeds of economic activity in wealthier countries to assist poorer countries might be better in terms of mitigating inequality than prohibiting these types of trades.

<sup>45</sup> Elena Reutskaja and Robin M. Hogarth, “Satisfaction in Choice as a Function of the Number of Alternatives: When ‘Goods Siate,’” *Psychology & Marketing* 26, no. 3 (2009): 197–203.

## VIII. WHY RESPECT CHOICES?

We have at least three broad reasons to respect and enable choice when we can, including as part of responding to a crisis. One reason has to do with the inherent value of being able to shape and determine the contours of one's life, which is better realized when choices are available rather than closed. A second has to do with the instrumental value of allowing people to make choices at an individual and local level rather than imposing a top-down rule: allowing choice helps to fine-tune crisis responses. A third is that allowing choice creates natural experiments that produce opportunities for generating and evaluating information, enabling experts to better understand which policies are better at producing certain types of outcomes.

The intrinsic value of choice may matter more when the choice is based not on a factual mistake, but rather, on deeply held values or matters over which people can reasonably disagree. John Stuart Mill's famous discussion of paternalism exemplifies this point.<sup>46</sup> There is a difference between preventing someone from crossing a broken bridge because they do not know it is broken and preventing someone from doing something that others might judge to be unwise but that the chooser judges to be valuable. In the context of a global crisis, this differentiates cases where people make choices for reasons of value disagreement from cases where people make choices due to factual mistakes. For instance, someone who refuses to be vaccinated on the basis of religious objections to receiving all vaccinations or religious objections to the content of a specific vaccine, might appropriately be treated differently from someone who refuses to be vaccinated because they believe that a vaccine contains microchips that can be used to track them.<sup>47</sup>

The second and third reasons to respect and enable choice relate to some points Friedrich Hayek and like-minded theorists make in defense of free markets rather than centrally planned economies. Hayek observes that even the best central planner equipped with the best technology is unable to have and integrate all of the local knowledge that decision-makers within individual households can act on.<sup>48</sup> For this reason, permitting choice rather than centrally planning economic decisions is likely to lead to better informed outcomes. One need not agree with Hayek about the inherent value of spontaneous order or with some of his beliefs about the moral wrongness of central planning in order to see that one advantage of choice is that it typically allows bottom-up information generation. In some cases,

<sup>46</sup> John Stuart Mill, *On Liberty* (1859), chap. 1; see also Jason Hanna, "Paternalism and the Ill-Informed Agent," *The Journal of Ethics* 16, no. 4 (2012): 421–39.

<sup>47</sup> Australian Government, "Do COVID-19 Vaccines Contain a Microchip or Any Kind of Tracking Technology?" May 10, 2022, <https://www.health.gov.au/initiatives-and-programs/covid-19-vaccines/is-it-true/is-it-true-do-covid-19-vaccines-contain-a-microchip-or-any-kind-of-tracking-technology>.

<sup>48</sup> David Schmidtz and Peter Boettke, "Friedrich Hayek," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, April 16, 2021, <https://plato.stanford.edu/archives/sum2021/entries/friedrich-hayek/>.

though, this advantage might be outweighed by greater logistical simplicity of central planning.

Another advantage of choice is that it can serve an information-gathering function. By allowing individuals, localities, states, or countries to experiment with different approaches for mitigating harms due to a crisis, we can compare the effects of different approaches. While these comparisons are made easier by choice, they could be achieved by using randomization without choice. In development economics and other social sciences, interventions are often tested by randomizing units of investigation to different treatments. For instance, a prominent study of mask efficacy randomized villages to different types of mask recommendations to identify their effect on COVID-19 transmission.<sup>49</sup> Especially in developed countries, though, it is likely difficult to adopt and enforce randomization-based approaches. Arrangements based on choice coupled with evaluation can achieve many of the same goals. If researchers understand the other differences between two states or communities, they can design studies that seek to explain how much of the difference in outcome is attributable to different policies.

Information generation may also help address the pressing issue of knowing when a crisis is “over.” There will always be some death and harm due to COVID-19—or any similar crisis—in our future. And there is no particularly clear way of defining how many deaths, hospitalizations, or infections to accept. Some have insisted on zero deaths, an impossible aim that threatens to undermine other valuable goals. Others have simply said that they are “over” COVID-19, regardless of whether harm could still be readily prevented. A more reasonable approach would consider not only the number of deaths, but also the cost of preventing each. As with many other challenges, such as decarbonization, the first 80 percent or so of deaths may be preventable by widely distributable and easily available interventions.<sup>50</sup> However, again as with decarbonization, the last few deaths may be difficult to prevent and efforts to prevent them may involve interventions that impose high costs compared to benefits. Leaving room for choice may help us learn which interventions are more versus less costly and more versus less beneficial.

One compelling way of defining an endpoint would be to look at the marginal cost of harm prevention, put in terms of years of life lost or some other metric. When the marginal cost per years of life lost averted rises above a certain threshold, it would no longer be appropriate to continue policy efforts to further reduce deaths. This is how regulation is approached in some other sectors.<sup>51</sup> If years of life lost seems like too simplistic a metric for harm prevention, that could be replaced with more sophisticated

<sup>49</sup> Jason Abaluck et al., “Impact of Community Masking on COVID-19: A Cluster-Randomized Trial in Bangladesh,” *Science* 375, no. 6577 (2021).

<sup>50</sup> Steven J. Davis et al., “Net-Zero Emissions Energy Systems,” *Science* 360, no. 6396 (2018).

<sup>51</sup> Cass R. Sunstein, “Lives, Life-Years, and Willingness to Pay,” *Columbia Law Review* 104, no. 1 (2004): 205–52.

approaches. For instance, a “prioritarian” metric puts special emphasis on avoiding harm to people who are already disadvantaged or marginalized.<sup>52</sup>

## IX. CONCLUSION

I have reviewed the arguments for and against leaving room for choice as part of crisis response. It is important to recognize that the question of whether choice is permitted is separable from the question of how much overall crisis mitigation is being aimed at. This point is apparent when we consider crises other than the COVID-19 pandemic, such as climate or pollution crises. The question of what the target atmospheric CO<sub>2</sub> equivalent level should be or how much pollution can allowably be emitted, is separate from the question of whether these outcomes should be reached through taxation, cap-and-trade, command-and-control regulation, or some other policy avenue.<sup>53</sup> Similarly, in response to the COVID-19 pandemic, decision-makers faced the issue of what target to aim at. The most common targets have included keeping deaths, hospitalizations, or some other medical metric below a specified level or reducing disease spread below a specified level. Selecting a target is separable from determining how that target is to be realized. One could set a demanding target in terms of number of deaths, but allow individual flexibility in how that goal is reached, or one could set an undemanding target in terms of number of deaths, but aim to achieve that target through a highly directive policy.

Decisions about whether to permit more choice are also separable from debates over proposals to relax public health restrictions across the board. For instance, some critics of COVID-19 public health policies have suggested not providing COVID-19 vaccines to children and young adults,<sup>54</sup> but this takes away choice in a different way from the approaches advocated by public health departments. These advocates often also tend to favor mandatory measures, but ones that focus only on specific populations, such as older adults or people with certain medical conditions.<sup>55</sup> In contrast, a choice-friendly proposal would aim at an overall population outcome rather than mandates for specific population groups. Of course, a member of a specific population group might contribute more or less to a harmful outcome depending on their personal risk. Someone who lives or works in a long-term care facility contributes more to the risk of overwhelming the health system if they visit a large gathering than does a healthy elementary school student, which then affects the costs associated with their choices.

<sup>52</sup> Compare Matthew Adler et al., “Priority for the Worse-Off and the Social Cost of Carbon,” *Nature Climate Change* 7, no. 6 (2017): 443–49.

<sup>53</sup> Mintz-Woo, “Carbon Pricing Ethics.”

<sup>54</sup> Alberto Giubilini, Sunetra Gupta, and Carl Heneghan, “A Focused Protection Vaccination Strategy: Why We Should Not Target Children with COVID-19 Vaccination Policies,” *Journal of Medical Ethics* 47, no. 8 (2021): 565–66.

<sup>55</sup> Julian Savulescu and James Cameron, “Why Lockdown of the Elderly Is Not Ageist and Why Levelling Down Equality Is Wrong,” *Journal of Medical Ethics* 46, no. 11 (2020): 717–21.

Choice-friendly proposals illustrate that there are options between universally mandating an intervention (such as vaccination or masking) and prohibiting anyone from requiring that intervention, which in effect amounts to subsidizing the decision to decline to become vaccinated or to wear a mask. A choice-friendly approach might, instead, aim at a specific target, which could be defined in terms of outcomes (such as hospital capacity or positivity rates) or use some proxy for outcomes (such as vaccination rate or percentage of people wearing masks). Individuals would then be able to choose how to realize the target.

Finally, while this essay has emphasized ways in which choice-friendly policies might be used as part of responding to a pandemic crisis, many of the same considerations also apply to other types of global crises. Many of the mechanisms discussed—most notably, trades and offsetting—are already used as part of potential policy responses to pollution and climate crises. Many of these could also be used to respond to crises such as global armed conflict; rather than requiring people to take specific steps in response to a conflict, such as relocating or joining the military, they might be able to choose how to provide their overall contribution to the military effort.<sup>56</sup> In any global crisis, policymakers should consider the potential merits and pitfalls of leaving room for choice.

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<sup>56</sup> Casey B. Mulligan, “In-Kind Taxes, Behavior, and Comparative Advantage” (NBER Working Paper 21586, National Bureau of Economic Research, 2015).