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No Entry in a Pandemic: Public Support for Border Closures

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Abstract: *Effective response to and rapid and reliable detection of infectious disease outbreaks require successful coordination of countries' border policies early on. As threats from diseases are highly salient to the public, researchers agree that a better understanding of domestic politics is crucial. This article investigates a key piece of this question: public demands for border closures. Our experiments in the United Kingdom and the United States show that a greater pandemic threat mildly increases support for border closures, but the World Health Organization's (WHO) guidance against border closures and reminders about international legal obligations to follow the guidance substantially weaken support for border closures. However, during the COVID-19 pandemic, many countries flouted WHO's recommendations and restricted their borders. Examining media attention suggests people's lack of knowledge of the WHO guidance as a crucial reason for those border closures. Our study produces insights into the design of effective global health governance.*

Verification Materials: The data and materials required to verify the computational reproducibility of the results, procedures, and analyses in this article are available on the *American Journal of Political Science* Dataverse within the Harvard Dataverse Network, at https://doi.org/10.7910/DVN/DX5T9G.

Infectious diseases have always harmed humanity (Kenny 2021; Shah 2016). The COVID-19 pandemic brought them to the forefront of health challenges in the twenty-first century with many fearing that the frequency of pandemics might increase. The biggest policy question for governments facing a pandemic threat is how to use nonpharmaceutical interventions to reduce the disease burden until the arrival of pharmaceutical measures such as vaccines and therapeutics.[1] In the past, governments usually responded by closing borders to prevent the exit of citizens from, and the entry of foreigners to, their territories (Harrison 2006). At times, that was the only measure taken, causing disruption to cross-border trade and tourism and infringing on basic human liberties, often targeting the most vulnerable (Witt 2020; WHO 2021).[2]

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[1]This view of pharmaceutical and nonpharmaceutical measures as substitutes is not the only way to frame governments' policy challenges. Some see nonpharmaceutical as complements to pharmaceutical measures; others draw no distinction between them.

[2]Some research examines states' policy measures to preventatively curb infectious diseases before they severely threaten one's country (see Bermeo 2017; Kobayashi, Heinrich, and Bryant 2021; Steele 2017).

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Despite the intuitive appeal that border closures are effective tools to limit infection, the epidemiological case for them is not straightforward. First, scientific evidence for the effectiveness of border closures is limited.[3] Second, border closures can actually prolong or worsen pandemics by disrupting the medical supply chain (Miller et al. 2021), by restricting access to medical professionals and equipment that could help (Devi 2020), and by providing a false sense of security, thereby reducing governments' willingness to look for and use (actually) effective domestic interventions (Kenwick and Simmons 2020). Finally, border closures create perverse incentives for countries to intentionally conceal and downplay outbreaks, leading to delays to any policy response anywhere else (Worsnop 2019).

Recognizing some of these trade-offs, there is broad consensus that coordinated border policy is critical during the early phases of a potential pandemic. In recognition of this urgency, 196 states agreed to the revised International Health Regulations of 2005 (IHR 2005), the legal framework through which the signatories authorized the World Health Organization (WHO) to make recommendations on travel and trade restrictions during global health emergencies and committed to follow any WHO guidance (Fidler 2005; Worsnop 2017).[4] Under the authority of the IHR (2005), the WHO has advised against travel and trade restrictions in recent pandemics.[5]

Despite this, many countries violate the international commitments that they themselves had made during nonpandemic, calmer times by flouting WHO guidance and restricting their borders. Such noncompliance undercuts the global health architecture, which leads to ineffective and perhaps counterproductive policies against pandemics (Kenwick and Simmons 2020). Further, anticipating others' border restrictions, countries may delay reporting outbreaks they observe in their territories. In turn, the rest of the world would be left unprepared (Worsnop 2019). We contend that a better understanding of politics surrounding the imposition of border restrictions is critical to improving global health governance.

In this article, we examine the domestic politics of border closures, specifically the public demand for border closures at the beginning of a disease outbreak. When a policy concerns a matter of life and death, widespread fear creates a domestic imperative to act. This is the situation in which governments implement policies that respond to public pressures, in particular in democracies. As early as the 1850s, intense public demand for strict border measures was cited as a significant obstacle to reducing border restrictions (Baldwin 1999). Fast forward to the beginning of the COVID-19 pandemic, strong majorities in 12 countries supported not allowing *anyone* in or out of their countries until the pandemic was contained (Bricker, 2020).[6] For these reasons, we suggest public opinion should be pivotal in the decisions to adopt border closures as a response to global health emergencies (Kenwick and Simmons 2020; Worsnop 2019).

To date, however, little is known about the sources of public demands for border closures soon after a disease outbreak. We develop a simple theoretical framework that centers on the role of uncertainty and develop hypotheses that we examine via a survey experiment administered to residents in the United Kingdom and the United States in December of 2020. Our experiment describes a hypothetical pandemic threat from a neighboring country before the government takes any border action. The hypothetical case gives us control over all aspects that we want to examine without threatening inference (Brutger et al. 2022; McDonald 2020). Three hypotheses are tested by randomizing key aspects of the scenario. First, we expect the number of infection cases from the neighboring country to increase support for border closures. Second, we analyze how differing capacities of the public health system within the country affect support for border closures. Finally, we study how the WHO's guidance against border closures and the international obligations to follow the guidance affect support for border closures.

As hypothesized, we find that higher infection rates in the neighboring country increase support for border closures. However, this effect is modest in the UK sample. Perceptions of domestic health capacity are

[3] In some circumstances, border closures may delay the arrival of a disease by a few weeks, which is only meaningful if the pathogen is not already circulating domestically (for detailed reviews, see Chinazzi et al. 2020; Errett, Sauer, and Rutkow 2020; Mendez-Brito, El Bcheraoui, and Pozo-Martin 2021; Shiraef et al. 2022). In addition, findings are often difficult to interpret as studies sometimes combine international border closures and domestic movement restrictions (e.g., cordons sanitaires, lockdowns) into one category (see Grépin et al. 2021).

[4] Article 43 of the IHR (2005) states that members' health measures "shall not be more restrictive of international traffic and not more invasive or intrusive to persons than reasonably available alternatives" and that if member states decide to implement additional health measures, these decisions must be grounded on "scientific principles," "available scientific evidence," and "any available specific guidance or advice from WHO" (WHO 2016).

[5] For example, on February 29, 2020, the WHO stated that "restricting the movement of people and goods during public health emergencies is ineffective in most situations and may divert resources from other interventions" (WHO 2020).

[6] See also Chilton et al. (2021) and Lindholt et al. (2021) for similar cross-national evidence.

inconsequential. Our major finding is that learning about the WHO's recommendation against border closures and states' legal commitments to follow the recommendation substantially reduces support for border closures. Respondents who were told that the WHO recommends against border closure have a decreased probability of supporting border closures by 0.13 [0.10, 0.17] (UK sample) and 0.11 [0.08, 0.15] (US sample). This WHO effect becomes even stronger when respondents are told that their country signed the IHR and agreed to follow WHO guidance (0.23 [0.19, 0.27] in the UK sample; 0.20 [0.16, 0.24] in the US sample). These effects represent large shifts in preference against border closures.

Our results suggest that the public would listen to the WHO's guidance against border closures and that international obligation has a strong impact on the public's policy preferences. However, these results do not fit well with what happened during the early phase of the COVID-19 pandemic, a point of which we reminded respondents of in the experiment: despite governments' pledges to the IHR and despite the WHO's advice against border closures, almost all governments drastically curbed travel, a policy widely supported or unquestioned by the public.

Investigating three different reasons for this discrepancy, we find one fitting explanation: the public simply was not aware of their country's (rather) esoteric international obligations or of WHO guidance against border closures. We study media attention to WHO guidance across 66 news outlets in six English-speaking countries during the first six months of the pandemic and find roughly no space was devoted to these topics, indicating that the prime source for people's knowledge about current events simply did not inform the public adequately.

Our experimental results and examination of news outlets offer important insights about why governments close borders in response to global health emergencies. Crucially, when informed about the counterintuitive notion that border closures are not useful (and perhaps even counterproductive) and about their country's legal obligations, people are considerably less supportive of such restrictions and come more in line with the WHO's opposition to border closures, which itself stems from governments' prepandemic policy decisions. Our findings advance the existing theories rooted in domestic politics by pointing to voters' lack of information, not just their fear of health threats, as an important explanation for pervasive use of border closures (Kenwick and Simmons 2020; Worsnop 2017). The COVID-19 pandemic is yet another opportunity for global health actors to revisit and improve pandemic preparedness and response for the future. This lack of information presents a formidable challenge to aligning policy recommendations made in nonpandemic times, such as those embodied in the IHR (2005), with policy choices made during a turbulent and scary pandemic, in particular when it comes to border closures.

Pandemic Uncertainty, Border Closures, and Public Opinion

There has been remarkably little research on the pervasive use of border restrictions after a disease outbreak. A few exceptions include two articles by Kenwick and Simmons (2020) and Worsnop (2017) that take similar political economy approaches, and both view border restrictions as a policy response to public demand for stronger border security.[7]

Central to Worsnop's (2017) theory is the assumption that public anxiety and demand for border restrictions increase with the declining quality of health infrastructure within the country. When a country has a weak health infrastructure, a pandemic makes its public highly anxious, and the public desire for border closures increases. Any losses of income and freedom that result from border closures are of secondary importance. The public is also key in Kenwick and Simmons's (2020) theory. They suggest that in countries that have invested in the narratives and symbols of border control, leaders draw on these narratives and use border control as a tool to assuage the public.

Both arguments presuppose that looming pandemics are highly salient to the public. This creates precisely the context in which governments will act to please voters (Healy and Malhotra 2009). We know that border closures were very popular among citizens across many countries during COVID-19 (Chilton et al. 2021; Lindholt et al. 2021). Some evidence indicates that factors like health concerns about the disease are associated with higher support for border closures (Lindholt et al. 2021) and that informing respondents that travel restrictions on foreigners are unconstitutional does not move policy preferences (Chilton et al. 2021). All in all, we still know little. Below, we introduce a framework that centers on uncertainty after an outbreak, from which we derive

[7]Others have examined the building of more durable border installations (Carter and Poast 2017; Hassner and Wittenberg 2015; Linebarger and Braithwaite 2022) or patterns of visa restrictions (Neumayer 2006), but their arguments do not travel well to pandemic emergency contexts. Gülzau (2021) presents descriptive statistics about temporary border closures and controls in the states of the Schengen Area over a period that includes the COVID-19 pandemic.

hypotheses about potential drivers of public support for border closures.

As an infectious disease context can have many different phases, it is important to clearly specify the circumstances of research interest to us. We focus on a public shortly after an infectious disease outbreak in a foreign country *and* before specific mitigation policies are put in place. This initial period, which can span several days to several months, is our focus as government action at that time is crucial from a public health perspective. Further, this allows us to build on the scant existing theoretical work (Kenwick and Simmons 2020; Worsnop 2017). Later in our discussion, we will also consider how the public might evaluate policies as they are being implemented.

Perhaps the key defining feature of an initial phase of a disease outbreak is high uncertainty over the pathogen's infectiousness and deadliness, as well as the availability and effectiveness of policy and medical options. Such uncertainties can make people anxious, motivating them to seek additional information, learn, and update their beliefs to reduce anxiety (Albertson and Gadarian 2015). We examine how the public receives and uses various signals to form border policy preferences.

As a general framework, we assume that when forming attitudes about health policy, people care about its impact on their health and their friends, family, community, and country.[8] Therefore, support for border closures should be a function of the anticipated health benefits of the policy, which in turn depend on two further beliefs. First, the associated benefits should be larger if the policy is believed to be more effective at reducing the threat. As people are generally unaware of the rather limited evidence that border restrictions work to stop or slow down the spread of infectious diseases, we contend that they rely on their intuition, believing that border closures are indeed an effective measure. Second, the anticipated health benefits of border restrictions should also depend on the perceived harm from the pathogen itself in the absence of a border closure. We argue that these depend on the health effects if infected and untreated and on the quality of medical interventions and treatments.

At the beginning of an outbreak, publicly available statistics such as the number of infected and dead are the most readily available information. Even though they are typically not valid and reliable early on, people will (overly) use them as signals about the infectiousness and lethality of the threat. Therefore, we expect people to update their beliefs about the extent of the threat after learning about case numbers or deaths, and we hypothesize that as the number of reported cases and deaths in surrounding environments increases, people support border closures more.

The threat of a pathogen also depends on the domestic health infrastructure. If it is strong and competent, offering speedy and reliable diagnosis, effective treatment, and systematic contact tracing, the public should have greater confidence that the outbreak will be managed well at home. In turn, we expect this would reduce support for border closures, as a smaller benefit from these restrictions can be expected (Worsnop 2017).[9]

When evaluating policies to respond to a potential pandemic, perceptions of their effectiveness should be consequential as well. We have argued that people's uninformed, intuitive belief is that border closures are an effective measure to curb a pathogen's spread. However, pervasive uncertainty increases public trust in health policy experts and motivates people to seek their counsel (Albertson and Gadarian 2015; Gilens and Murakawa 2002). The public generally sees the WHO as the foremost expert in the context of our study,[10] and we argue that people will update their beliefs about a policy's effectiveness in light of the WHO's assessment of it. We hypothesize that the WHO's recommendation against border closures leads people to weaken their support for border closures.

Last, we also argue that learning about their country's prepandemic obligations to follow the WHO guidance under the IHR influences public support for border closures. Like the WHO's expert guidance itself, recommendation structures as embedded in the IHR that were negotiated by governmental public health experts and formally ratified by politicians during prepandemic times are a powerful signal. The early weeks and months of a potential pandemic are characterized by high uncertainty and anxiety, and we expect that this kind of signal will affect public perception about the effectiveness of any policy, in particular when overwhelmed governments are obviously muddling through, as was the

[8]Distinguishing between personal and sociotropic concerns is common (Hainmueller and Hopkins 2014; Huddy et al. 2002). These multidimensional concerns are entangled in the case of infectious diseases as it is essentially impossible to assuage personal concerns when community spread is high. Therefore, the personal-sociotropic distinction is not analytically useful for us.

[9]This argument assumes that the public (and leaders) view border closures and domestic mitigation measures as substitutes rather than complements (Kenwick and Simmons 2020).

[10]A multicountry survey conducted in the early stage of the COVID-19 pandemic consistently shows that citizens of many countries trusted the WHO for science-based guidance more than they did their own governments (Gallup 2020). A subset of people in the United States was particularly skeptical of the WHO, which should make our tests based on the US sample more conservative.

case in the early phases of the COVID-19 pandemic.[11] Therefore, we hypothesize that learning about implied legal obligations to follow the WHO guidance made in calmer days lead to weaker support for border closures.[12]

Research Design

Testing our hypotheses requires comparisons of scenarios that differ in the number of reported infections and deaths, the quality of the health system, and awareness of the WHO's border-related guidance and the country's legal obligations to the IHR. We turn to an experiment with a fictitious scenario that allows us to control all these aspects. Recent research attests that experiments using hypotheticals yield results comparable to real-world scenarios. This is particularly the case when research considers policy preferences, which is our focus, and not a retrospective approval of a politician who took some action (Brutger et al. 2022; McDonald 2020).

FIGURE 1 Map of Cascara and Neighboring Countries in the Vignette

Notes: Cascara is described as the respondents' home, whereas Marshovia is the country that has an infectious disease outbreak.

Subject Recruitment

We recruited participants from the United Kingdom and the United States in the fall of 2020 via Prolific, an online platform based in the United Kingdom (Palan and Schitter 2018). We posted jobs seeking participants for a survey on current politics. Since this is an opt-in survey on a platform for which people only sign up to take surveys, respondents knew that they participated voluntarily in our research. No deception was used; the vignette was introduced as a "hypothetical story."

We recruited 1,599 participants from the United Kingdom and 1,625 from the United States.[13] Unsurprisingly, our respondents were younger, more female (in the United Kingdom), more left/liberal-leaning, and less (more in the United Kingdom) right/conservative-learning. While previous validation efforts show experiments using opt-in samples, such as from Prolific, routinely replicate the signs of treatment-effect estimates carried out in random samples of the target populations (Berinsky, Huber, and Lenz 2012; Coppock, Leeper, and Mullinix 2018; Mullinix et al. 2015), reweighting to match demographic moments of opt-in samples to the target populations' can help bring magnitudes of the treatment effects more in line (Hainmueller, Hangartner, and Yamamoto 2015). We turn to entropy balancing (Hainmueller 2012) to balance the country-specific samples so that the mean age and proportions of left/liberals, right/conservatives, and women match between the samples and the target datasets. See Section B (p. 2) in the online supporting information for descriptive statistics of the samples before and after reweighting. All the analyses below use these country-specific weights.

Experimental Vignette

We designed a region in the world, as shown in Figure 1. We asked people to see themselves as citizens of Cascara so that they tie their own welfare to choices and circumstances relevant to Cascara. An infectious disease outbreak in Marshovia creates a threat to Cascara. Table 1 gives an overview of all possible treatment realizations; Section C (p. 3) in the online supporting information presents the exact wording for the entire vignette.

Cascara is a "moderately wealthy democracy of 13 million people … [which] has good economic and political relationships with all states in the region." Since we ran the experiment in the United Kingdom and the United States, we fixed the context to something familiar

[11] Journalistic accounts demonstrate contemporaneous politicians' actionism and lack of competence. Among many, see Gottlieb (2021) and Abutaleb and Paletta (2021) for the United States and Alexander (2021) and Gloger and Mascolo (2021) for Germany.

[12] The literature provides other reasons for the effect of reminding people of their governments' commitments to their international obligations, including a sense of moral responsibility, "the desire to do the right thing," or worries about the reputational costs of violating international commitments (Chaudoin 2014; Chilton 2015; Kreps and Wallace 2016).

[13] We relied on the 2017 British Election Study and 2018 Cooperative Congressional Election Study (United States) to evaluate the representativeness of our samples.

TABLE 1 Treatments and Potential Realizations in the Vignette

Treatments	Potential Realizations
Deaths/Infections in Marshovia	5/500; 9/1,000; 21/2,000; 31/3,000; 49/5,000; 74/7,000; 81/8,000; 110/10,000; 120/12,500; 148/15,000; 173/17,000; 184/19,000
Cascara's Health Capacity	Poor; World-Class
WHO	*No information provided*; WHO recommendation to leave borders open based on IHR; WHO recommendation to leave borders open based on IHR, and Cascara ratified IHR and promised to abide by them.

Notes: Deaths and cases are drawn as fixed pairs. The full wording for the WHO treatments appears in Section C (p. 3) in the online supporting information.

(friendly, wealthy, and democratic neighbors) that does not suggest other reasons for closing borders, such as threats of violence, terrorism, or civil war (Gülzau 2021). Additionally, we made Cascara a democracy because this is also familiar, and our causal mechanism for explaining why countries close borders depends on public attitudes.

The other neighbors, Mibria and Stoland, are defined solely in geographic terms: Mibria shares a border with Marshovia, the source of the outbreak, while Stoland does not. We did not provide such information, but respondents might think of Mibria, Stoland, and Marshovia as moderately wealthy and democratic like Cascara, given that Cascara has friendly relations with them and that democracies and wealth cluster in space.[14]

Respondents are told that Marshovia has "seen an outbreak of a novel virus, which experts fear might be comparable to the coronavirus of 2019." While there are "only 300 known cases in Cascara," we randomize the threat potential emanating from Marshovia by specifying a random pairing of active cases and deaths so far, relying on a roughly 10% case fatality rate. The number of cases in the neighboring country is higher by approximately 66–6,000%. We underline the threat potential by stating that "experts are worried" that the virus will "cause significant adverse health effects" in Cascara. Given the ongoing COVID-19 pandemic at the time of the survey, we assume that respondents believe the infectious disease premise.

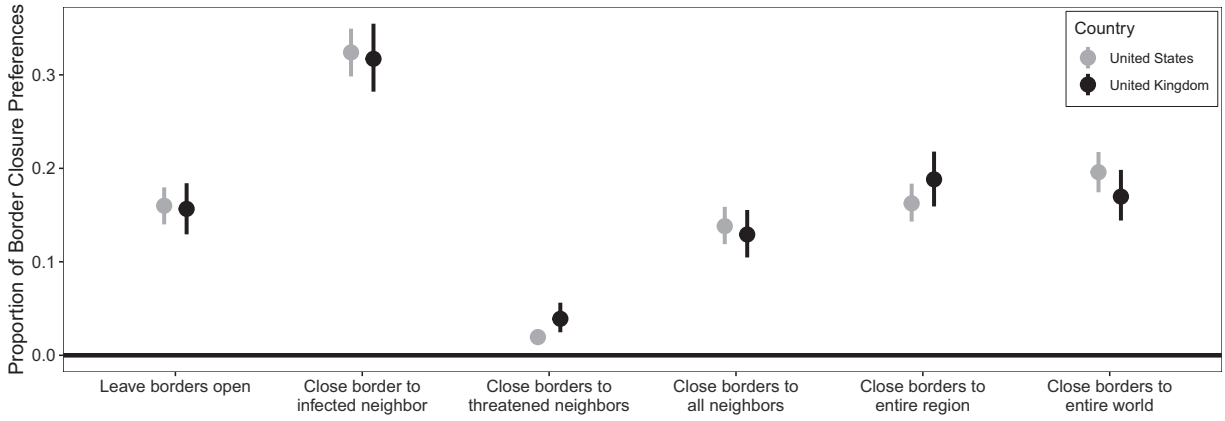
In the same paragraph, we randomize Cascara's capacity to handle a health crisis by stating that Cascara has either a "world-class" or a "poor" medical system. The two word choices are extreme, suggesting a strong contrast, which we do not highlight any further. Next, we state that Cascara's president, Becker, consulted with his cabinet and announced that a decision about whether to close the border was going to be made the next day. This hypothetical President Becker says little that is substantive or policy related; rather, he exists in our vignette largely as a prompt that we can use to ask respondents about their policy preferences (i.e., what Becker should decide).

The last paragraph of the vignette provides contextual information about the WHO and IHR, for which we use their real-world referents.[15] Respondents see one of the following three treatment realizations. First, we provide no further information so that the vignette ends after the second paragraph. Second, we state that the WHO "recommends against restriction on people and goods crossing borders" after examining the situation in Marshovia and in light of the IHR. This treatment emphasizes the standard arguments based on the IHR that we discussed above. Third, the identical statement is shown but supplemented by the information that Cascara ratified the IHR in 2007 and "agreed to follow recommendations of the WHO during an outbreak." Emphasizing ratification suggests that in the past, one's own (predecessor) government underwent a long and

[14] Future research could theorize about variations of the aspects we hold fixed. First, we opted to make none of the countries an island. Most countries in the world are landlocked, which means the applicability of an island scenario would be more limited. Also, research shows that border closures might weakly help islands threatened by a pandemic (Eichner et al. 2009). Second, the outbreak occurs close to the country with which the survey taker should identify. We use this setup to amplify the threat and urgency, which means that the results may not speak to cases like Asian, European, and American countries reacting to an Ebola outbreak in West Africa.

[15] Since the WHO will likely play a key informational role in any future infectious disease outbreak, we allow for natural priors about the WHO to affect respondents' assessments (Bayram and Shields 2021). Had we used a hypothetical global health organization, interpretation of its effects would have been complicated. Some respondents would have just substituted their beliefs about the WHO, whereas others would have used their assessment of the message as a cue for whether the entity could be trusted. Recognizing the WHO's future relevance, we rely on the real WHO to communicate information about the hypothetical case.

FIGURE 2 Distribution of Border Closure Preferences, by Survey Country



Notes: The *x*-axis gives the border closure preferences and the *y*-axis the (reweighted) proportions of respondents choosing each border closure option by country (gray for the United States; black for the United Kingdom). The "infected neighbor" refers to Marshovia; the "threatened neighbors" include Marshovia and Mibria; and, "all neighbors" are Marshovia, Mibria, and Stoland. Means and 95% confidence intervals were obtained via nonparametric bootstrapping.

formal process to ratify the IHR, embracing it as a prudent course of action after an infectious disease outbreak. Going forward, we will call the second treatment realization "WHO recommendation" and the third "WHO recommendation and ratification."

Following the vignette, we then asked all respondents: "[u]ntil the disease outbreak is under control, what should Cascara do?" Respondents chose their most preferred course of action from six options. People could choose leaving "all borders open," the probability for which is of primary interest. All other options entailed border closures to different degrees: closing the border to Marshovia (the infected neighbor); to Marshovia and Mibria (threatened neighbors); to Marshovia, Mibria, and Stoland (all neighbors); to all states in the region; and to all states in the world.

Statistical Analysis

Our outcome variable is categorical with six options of border restrictions. We model the outcome through a multinomial-logistic model ("leave open" as the reference category),[16] with the latent equations containing the same set of covariates. From the randomization, we have the logarithm of infection cases in Marshovia, an indicator for whether the health system is "world-class" ("poor" as the reference), and two indicators for the two WHO/IHR information treatments (no mention of WHO/IHR as the reference).

We also include a set of demographic and personality trait measures to improve statistical efficiency. We control for age, gender, education, left/right (United Kingdom) or liberal/conservative (United States) ideological orientation, and authoritarianism. See Section A (pp. 1–2) in the online supporting information for details.

Results

Before examining treatment effects, we show the marginal distributions of answers as they set the scale for the treatment effects. Figure 2 gives the proportions of answers across all treatment conditions for each country.

There are no meaningful differences between the marginal distributions for the two countries. The proportion of leave-open answers is 0.16 [0.13, 0.18] (United Kingdom) and 0.16 [0.14, 0.18] (United States). Around this level, we will see marginal and incremental changes stemming from the treatment effects. This level is also similar to the survey results during the early phase of COVID-19 across several countries.[17]

We now turn to the effects of infections in Marshovia, Cascara's health capacity, and the WHO scenarios on people's border policy preferences. Tables 2 and 3 show the results for the multinomial-logistic models. Each column gives the estimated coefficients for the variables on the left for the latent outcome equation.

[16]Initial analyses suggest that respondents may not have seen the answer options as ordinal, which is different from how we thought about them. Therefore, we proceed with an analysis that does not make the stronger ordinality assumption at the cost of estimating more parameters.

[17]See Footnote 5.

TABLE 2 Treatment Effects on Border Closure Preferences (UK Sample)

	Close Border(s) to:				
	Infected neighbor	Threatened neighbors	All neighbors	Entire region	Entire world
Cases, logged	0.11	−0.19	0.11	0.13	0.00
	(0.07)	(0.12)	(0.09)	(0.08)	(0.08)
Health capacity (world-class)	−0.25	0.60*	−0.06	−0.03	−0.20
	(0.16)	(0.31)	(0.20)	(0.18)	(0.18)
WHO (recommendation)	−1.53**	−1.36**	−2.26**	−1.90**	−1.36**
	(0.28)	(0.39)	(0.31)	(0.29)	(0.30)
WHO (recommendation, ratification)	−2.01**	−2.72**	−2.62**	−2.56**	−2.06**
	(0.27)	(0.45)	(0.30)	(0.29)	(0.29)
Gender (male)	−0.24	−0.17	−0.47	−0.32†	0.30
	(0.16)	(0.30)	(0.21)	(0.18)	(0.19)
Age	0.78	0.62	−0.19	0.64	−1.88**
	(0.57)	(1.05)	(0.69)	(0.63)	(0.64)
Education (university)	−0.04	0.52†	−0.21	0.20	−0.20
	(0.17)	(0.31)	(0.20)	(0.19)	(0.19)
Ideology (left-right)	0.96*	1.12	1.76	1.34**	0.90†
	(0.46)	(0.81)	(0.57)	(0.51)	(0.53)
Ideology (do not know)	−0.12	−2.58	0.20	0.06	0.09
	(0.37)	(1.78)	(0.46)	(0.41)	(0.41)
Authoritarianism	0.69*	1.41**	0.57†	1.13**	0.42
	(0.27)	(0.46)	(0.33)	(0.29)	(0.30)
Intercept	0.45	−0.01	0.20	−0.43	1.96*
	(0.77)	(1.27)	(0.95)	(0.86)	(0.85)

Notes: Each estimate shows results for a different outcome choice. The reference category is "open borders." Standard errors are reported in parentheses. The estimates are based on 1,599 observations.
†$p < .10$; *$p < .05$; **$p < .01$.

Since the reference category is "leave borders open," coefficient estimates can be interpreted as (marginal) latent changes to the probability of the column's border-closure choice compared to "leave borders open."

First, the coefficients on Marshovia's infection cases are insignificant (but leaning mostly positive) in the UK sample and are mostly significantly positive in the US sample. These indicate that respondents become more supportive of border closures as cases increase, albeit noisily so. Second, all the coefficients on "world-class" health capacity are statistically insignificant, suggesting that the capacity of the health system does not affect border policy preference. Lastly, both WHO-related treatments are negative and statistically significant. This indicates that informing respondents about the WHO recommendations against border closures and even more so about their country's legal obligations make them less supportive of closing borders.

Since considering the substantive magnitude of coefficients is notoriously difficult in multinomial-logistic models, we show them via simulations using synthetic observations. For easier interpretation, we transform the scale of the outcome to reflect that each answer option implies a preference for closing borders to each of the countries. For example, respondents selecting to close borders to the entire region also want to close

TABLE 3 Treatment Effects on Border Closure Preferences (US Sample)

	Close Border(s) to:				
	Infected neighbor	Threatened neighbors	All neighbors	Entire region	Entire world
Cases, logged	0.15*	0.47*	0.03	0.17*	0.20*
	(0.07)	(0.21)	(0.08)	(0.08)	(0.08)
Health capacity (world-class)	0.18	0.63	0.11	0.03	0.06
	(0.16)	(0.40)	(0.19)	(0.18)	(0.17)
WHO (recommendation)	−1.06**	−2.15**	−1.31**	−1.40**	−1.25**
	(0.24)	(0.56)	(0.26)	(0.26)	(0.25)
WHO (recommendation, ratification)	−1.52**	−1.83**	−2.05**	−1.84**	−1.95**
	(0.23)	(0.44)	(0.26)	(0.25)	(0.24)
Gender (male)	−0.18	0.59	−0.43*	−0.41*	−0.11
	(0.16)	(0.40)	(0.19)	(0.19)	(0.18)
Age	0.54	−0.29	0.66	−1.67**	−1.62**
	(0.50)	(1.22)	(0.60)	(0.57)	(0.54)
Education (university)	0.15	0.13	−0.17	−0.09	−0.14
	(0.16)	(0.40)	(0.19)	(0.18)	(0.18)
Ideology (left-right)	−0.64*	0.68	−0.03	−0.66†	−0.41
	(0.31)	(0.79)	(0.38)	(0.36)	(0.35)
Ideology (do not know)	−1.07	−7.81**	−0.03	−0.45	−0.07
	(0.79)	(0.00)	(0.82)	(0.78)	(0.74)
Authoritarianism	1.19**	1.27*	0.99**	1.32**	0.77*
	(0.26)	(0.60)	(0.32)	(0.30)	(0.30)
Intercept	0.02	−6.23**	0.44	0.70	0.56
	(0.69)	(2.04)	(0.82)	(0.79)	(0.77)

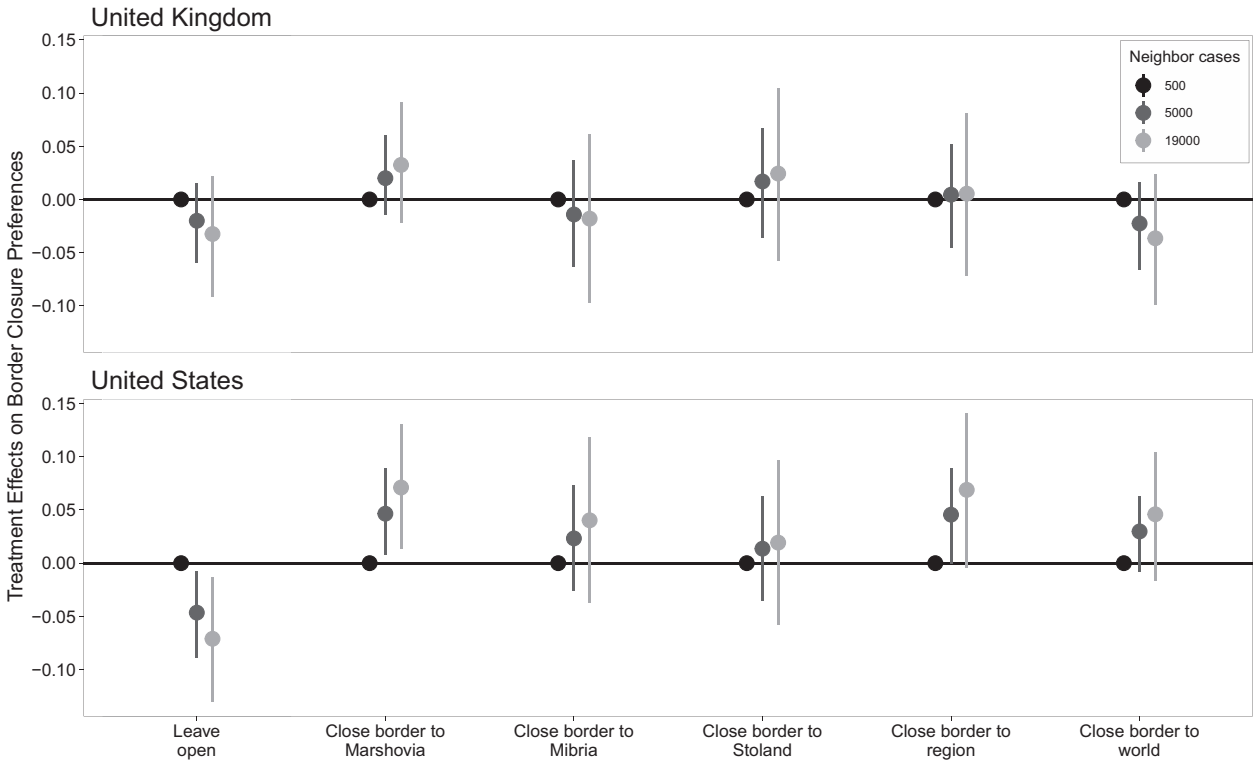
Notes: Each estimate shows results for a different outcome choice. The reference category is "open borders." Standard errors are reported in parentheses. The estimates are based on 1,625 observations.
†$p < .10$; *$p < .05$; **$p < .01$.

borders to Marshovia. Therefore, we use the predictions from the multinomial-logistic model and calculate the probabilities that all borders should stay open, and that borders should be closed to each of the countries individually (Marshovia, Mibria, Stoland), the entire region, and the world. Since other covariates, including other treatments, also matter for the magnitude of these differences, we average over the empirical distribution of all other variables. We calculate these effects for each parametric bootstrap draw to account for sampling uncertainty.

Figure 3 gives the results for the number of reported cases in the neighboring country. The *x*-axis gives each policy preference option, and the *y*-axis shows the difference in each probability compared to only 500 cases in Marshovia. The different gray tones indicate the number of cases used for the contrasting simulation. The upper panel provides the results for the United Kingdom, the lower for the United States. In the US sample, the increasing number of cases in Marshovia makes US respondents more likely to support restricting Cascara's borders, and this effect is also substantively significant. Even though the overall pattern is similar, the results are not statistically significant in the UK sample.

Figure 4 shows the changes in probability when contrasting a "world-class" (light gray) with a "poor" (black)

FIGURE 3 Effects of Severity Treatments on Border Closure Preferences



Notes: Each panel gives the treatment effects, comparing 5,000 (dark gray) and 19,000 (light gray) cases against 500 (black) in Marshovia. The border closure options are presented on the *x*-axis and the change in probability on the *y*-axis. The different panels show the results for the two survey countries. The dot and line give the mean and 95% confidence interval, averaged over the (reweighted) empirical distribution of the samples.

health capacity in Cascara. The magnitudes of the mean effects are tiny, and in neither survey country do we see a statistically significant difference in the probability of support for restricting borders.

Figure 5 gives the effects when the WHO recommendation (dark gray) or the recommendation and treaty obligation (light gray) are mentioned compared to the absence of any WHO information (black). We see sizable effects that are similar across the two survey countries. For example, the probability of supporting leaving borders open increases—that is, the probability of supporting border closures decreases—by 0.13 [0.10, 0.17] (United Kingdom) and 0.11 [0.08, 0.15] (United States) when only the WHO's recommendation is provided compared to no WHO information. If the treaty obligations of Cascara are mentioned as well, this probability increases by 0.10 (United Kingdom) and 0.09 (United States).

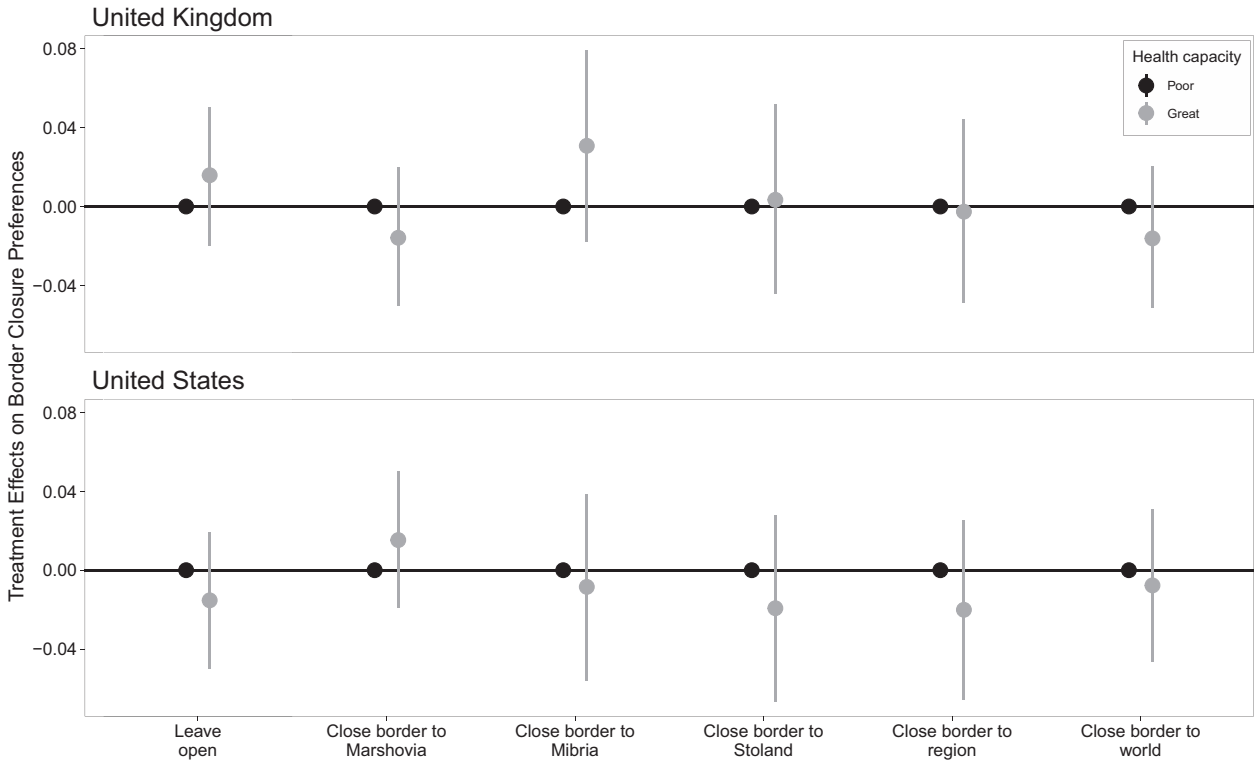
Taken together, we find strong support with sizable effect magnitudes for WHO recommendations and legal obligations to reduce support for border closures, some support in the United States for the responsiveness to increasing number of cases, and no support for the idea that a higher-quality health system makes people less willing to close borders during global health emergencies.[18]

Early Days of COVID-19 and Border Closures

Our strongest result is that the WHO's recommendation against border restrictions, especially when paired with a reminder about the previously made legal obligation, makes people significantly less likely to support

[18]In Section F (pp. 15–16) in the online supporting information, we explore and benchmark these treatment effects against how several "usual suspect" demographic variables relate to border preferences. We find that authoritarianism and ideology matter to border preferences. Interestingly, in the United Kingdom, very right-leaning individuals are more supportive of border closures compared to very left-leaning people. In the United States, the relationship is in the opposite direction. Importantly, we show that the WHO treatments matter the most when pitted against the demographic variables.

FIGURE 4 Effects of Health Capacity Treatment on Border Closure Preferences



Notes: Each panel gives the treatment effects, comparing a "world-class" medical system against the baseline of a "poor" system. Otherwise, the figure is constructed analogously to Figure 3.

border closures. However, these results might seem awkward given that almost all states that pledged to follow the IHR-restricted country access to some extent during COVID-19, even though the WHO recommended against it. Here, we consider two sets of explanations that could reconcile our results with the realities of the early days of COVID-19.

Improving Verisimilitude

Realizations of the vignette may have poorly matched how our respondents perceived the COVID-19 pandemic. We consider two such mismatches. First, the early days of COVID-19 felt particularly frightening, as widely circulated epidemiological simulations presented many daunting scenarios, including the possibility that a sudden surge might overwhelm the medical systems. Perhaps, if we focus on very dire vignette realizations, the WHO effects might vanish.

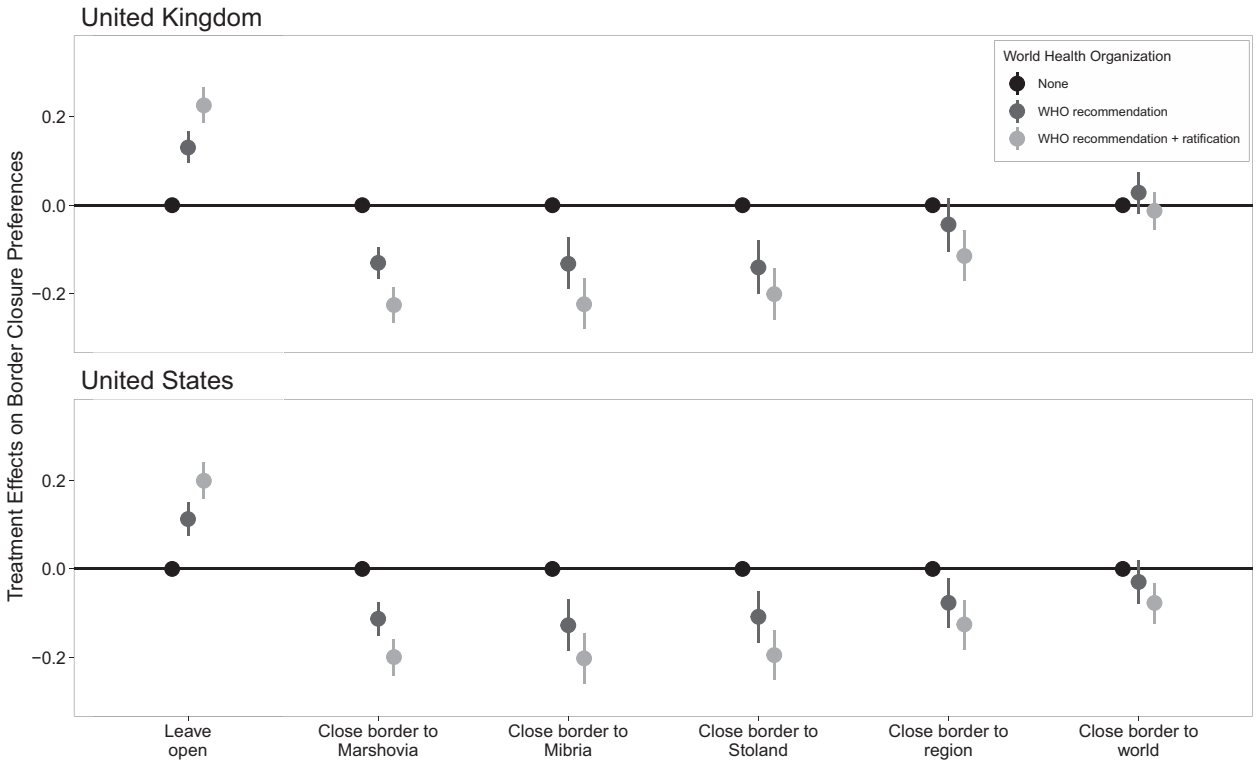
We examine this possibility by restricting our analysis to observations with greater verisimilitude, namely when respondents encountered a high number of cases in Marshovia ($\geq$10,000) and a "poor" health system. See Section D (pp. 4–6) in the online supporting information for the full estimates. The results mostly corroborate what we have seen thus far. Only in the United States, and for the WHO recommendation only, does the effect become statistically insignificant from the case without any WHO information. As the reduced sample sizes (354 for the United Kingdom, 370 for the United States) make estimates noisier, we also estimate a less demanding Bernoulli-probit model for whether a respondent selected "leave open" or not, which shows that both WHO treatments are positive and statistically significant in line with the main results seen above.[19] Thus, the context of a dire situation does not limit the effects of the WHO treatments.[20]

A second mismatch could be the politicization of the response to the outbreak. In the early days of COVID-19, some countries' politics were more charged and polarized than the political decision-making we present in our

[19]These results are available from the authors and are also noted in the replication materials.

[20]Section E (pp. 7–14) in the online supporting information presents a full causal moderation analysis for threat and health capacity as moderators of the WHO/IHR effects.

FIGURE 5 Effects of WHO Treatments on Border Closure Preferences



Notes: Each panel gives the treatment effects comparing the WHO recommendation (dark gray) and WHO recommendation/ratification (light gray) against the baseline of no WHO information. Otherwise, the figure is constructed analogously to Figure 3.

vignette. In particular, politicians slandering and politicizing the WHO may have undercut the impact of the WHO guidance in the real world. Nonetheless, we think this lack of verisimilitude does not provide a fully satisfactory explanation. The WHO and COVID-19 were polarized to different extents in the United States and in the United Kingdom, with most other democracies experiencing politics closer to the latter. Yet, despite different degrees of polarizations, the WHO and IHR effects are almost identical (see Figure 5).

Learning about WHO Recommendations and Obligations

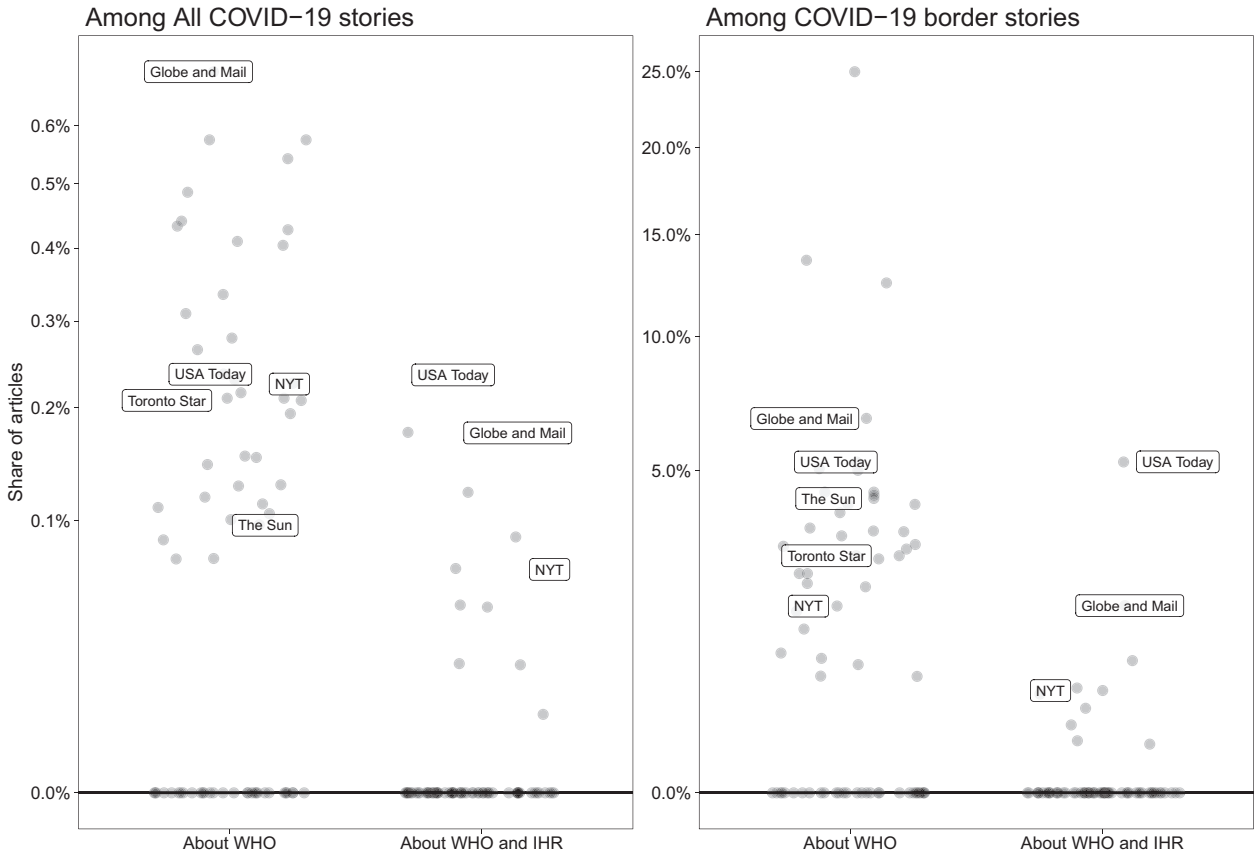
In experiments like ours, people tend to read the provided treatment text. However, for corresponding causal effects to materialize in real life, people would need to have heard about the real-world analogue, which concerns admittedly esoteric topics (counterintuitive policy guidance, treaty ratification). The lack of real-world information uptake can explain the discrepancy between our findings and the widespread support for border closures during COVID-19 despite WHO recommendations against border closures. The most common source for people to learn about novel topics is the news media. Thus, we examine whether and to what extent the WHO's recommendations against border closures received news coverage during the first six months of the pandemic.[21]

We consulted news databases to determine the number of newspaper articles about border-related issues that also mention the WHO or WHO/IHR. To account for differences in news-specific patterns, such as the overall volume of articles in the newspaper or the database, we scaled the two counts (WHO or WHO/IHR) by either the number of articles on COVID-19 and the number of articles on border closures (in the context of news about COVID-19), respectively. We obtained the numbers for 66 newspapers in English-speaking democracies. Section G (pp. 17–18) in the online supporting information gives details, including the search queries.

Figure 6 illustrates the results. Each dot provides

[21] The WHO ceased communication of its recommendations about border restrictions after Spring of 2020.

FIGURE 6 News Coverage of Border-Related Topics that also Mention WHO or WHO/IHR



Notes: The left-hand panel gives the share of all COVID-19 articles about border closures that mentions the WHO (left on the *x*-axis) or the IHR (right on the *x*-axis); values are shown on the *y*-axis. Each dot represents a newspaper. If the share is greater than zero for one of the top-two newspapers of the United States, the United Kingdom, Canada, or Australia, we label it. The right-side panel shows the results when the reference set is all stories that address COVID-19 and the border. Note that the two *y*-axes are different but scaled by square root.

the share of articles (*y*-axis) for the query on the *x*-axis, scaled by the query above the respective panel. We highlight the two top newspapers in each country included in our examination, provided that the respective share is above zero. When scaling by the entire COVID-19 coverage, the shares of border articles involving the WHO and WHO/IHR are vanishingly small: the *maximum* share is slightly above 0.6%.[22] If the denominator are stories about border closures as in the right-hand panel, the shares naturally get higher but are nonetheless very small.[23]

Our experimental results show that when people are informed of the WHO's recommendation against border closures and the previously made legal obligation, they become substantially less supportive of closing borders. Yet, in the early phase of COVID-19, most countries flouted the WHO's guidance and restricted their borders. Our news examination suggests that this might have been enabled by the mass media not informing the public about the WHO's recommendations against border closures and their countries' prior commitments and legal obligations under international law.[24]

[22]A content analysis of major Canadian newspapers shows that the media criticized the Canadian government for following WHO guidelines early during COVID-19 (Reddy et al. 2021). Overall, this study reports only 62 articles were published dealing with international travel during COVID-19.

[23]Note that all estimates are conservative as spot-checking revealed some false-positive hits. Since even these conservative estimates are very low, we did not try to remove the false positives.

[24]People get at least some of their news through social media today. Social media can be viewed as additional filters through which news stories published by traditional news outlets are disseminated. Evidence suggests social media can alter the distributions of news and content (e.g., Berger and Milkman 2012; Soroka 2014). However, given that newspapers rarely covered topics related to border closures and WHO/IHR, it is unlikely that the general public were exposed to such information via social media.

Implications for Global Public Health Governance

How to better coordinate border policies and how the WHO and the IHR can be reformed for greater effectiveness is an ongoing debate.[25] This section will discuss what our research adds to this discussion and highlights areas ripe for follow-up research. The most immediate implication of our findings is that better informing the public before any policy decision may bring governments into compliance with international obligations made in clearer-headed times. However, there are reasons to suspect that such efforts may not bear fruit under most conditions, as we argue below. Further, we consider ex post naming-shaming governments that did not comply with WHO guidance not to restrict borders.

Informing Before Policy Decisions

The WHO guidance needs to be disseminated by an entity and needs to meet mass audience's demands prior to any policy decision, as was the case in our experiment. On the demand side, people might not want to seek the WHO guidance information in the first place. When facing an urgent threat from a transmissible pathogen, people demand information that helps them cope with anxiety (Albertson and Gadarian 2015), something that nuanced arguments about border closures or reporting esoteric international legal obligations may not deliver. This suggests reasons to be pessimistic.

On the supply side, most potential messengers are in a bad position to spread information about the WHO's guidance and the IHR, a communications weakness plaguing even the WHO itself. First, the WHO simply may not see ordinary citizens as its target audience of information about its guidance and IHR compliance. Second, even if the WHO aimed to improve compliance via a public channel like many international organizations do (Dai 2005; Simmons 2009), the WHO's top priority during public health emergencies is to supply information about the disease and effective mitigation strategies.

Some otherwise routine suppliers of information to the public may also be hamstrung. News outlets may not publish border-related WHO/IHR stories that people are not interested in reading (Soroka 2014), something we demonstrated earlier in the case of COVID-19. Incumbent politicians or high-level bureaucrats might lack incentives to factually inform the public about WHO guidance and IHR commitments because doing so would undermine the expedient use of border restrictions to placate an anxious public (Kenwick and Simmons 2020). Even though opposition parties could benefit from educating the public so that it can call out the government later in the case of border closure, they might be ineffective at generating attention as public support and focus shift to incumbents during times of crises (Baekgaard et al. 2020; De Vries et al. 2021).

Naming and Shaming after Border Closures

Governments may also be disciplined into compliance with the WHO rules they helped craft earlier if they anticipate adverse reactions to a policy that they might take. Naming and shaming noncompliant governments is a particular form of ex post information provision that is worth considering even though our experimental setting concerns the time period *before* the government takes any action. Once a country closes its borders, it would have incentives to defend its actions by advocating for counternarratives against WHO guidance or the IHR. In such an information environment with competing messages, whether WHO guidance and the IHR would have the same (encouraging) effects on the public is an open question that we hope future research investigates.[26]

With this caveat stated, we would still expect that such naming and shaming generates public attention to the issue (see Brutger and Strezhnev 2022). Two obvious actors may lack incentives to pursue it, however. The WHO's reliance on funding from its member states may discourage it from calling out noncompliers (Worsnop 2017). Tellingly, the WHO did not identify or criticize any particular country for not following its guidance during COVID-19 (WHO 2021). Countries in compliance could also adopt this strategy, but such naming and shaming would not be successful if most governments also flout the WHO guidance, like they did during COVID-19.

But that does not mean naming and shaming cannot be effective. One can envision entities that are single-mindedly concerned with WHO guidance compliance. Parallels exist in the world of human rights and development aid, for example. NGOs' naming and shaming of human rights violators has led to improvements in human rights practices (Murdie and Davis 2012), and

[25] For example, see Gostin, Habibi, and Meier (2020), Habibi et al. (2020), Lee et al. (2020), and Worsnop et al. (2021). For specific recommendations, see WHO (2021).

[26] Existing evidence suggests that naming and shaming could generate backfire effects among particular subsets of respondents after government policies have been announced (Cope and Crabtree 2020; Lupu and Wallace 2019; Nyhan and Reifler 2010). We hope future research examines this possibility that people might push back against WHO recommendations in such a context.

the Aid Transparency Index, run by a small UK NGO, has made aid donors more transparent about their operations (Honig and Weaver 2019). In the context of a pandemic, NGOs could monitor compliance and call out violators, helping to encourage compliance via the public opinion effects we identify in this study.

Conclusion

There is a growing recognition that better coordination of countries' border policies is vital for timely, accurate outbreak detection and effective response. Yet little is known about the domestic politics of border closures, which we address by studying drivers of public support for border closures. Our key findings from the survey experiment and media analysis are that the WHO recommendations against border closures and countries' commitment under IHR can reduce public support for border closures, but the formidable challenge lies in how best to inform the public about WHO's guidance and international commitment not to close borders.

There are limitations to our study. In particular, we have investigated only the United Kingdom and the United States. Future research should examine whether our results change in other contexts and whether country-level characteristics may moderate the effects. Yet the patterns we observed were remarkably similar across the two countries, giving us more confidence that the results generalize beyond these two countries and to future scenarios. The United States could be considered unique in that its leader directly questioned the integrity of the WHO, and COVID-19 was a highly politicized issue from the beginning. Similar patterns across the United States and United Kingdom may indicate that such an environment may not matter as much as we might anticipate. Following WHO guidance may be rooted in views about its competency and not perceptions about its integrity (Bayram and Shields 2021). That said, we hope future research assesses how the smearing of the WHO or countermessages by politicians and the media may influence the effects of the WHO and IHR.

Our study both complements and extends recent theories in important ways. First, these theories share the premise that fear drives people's support for border closures. Our experiment gives some credence to this: support for border closures is contingent, at least partly, on the severity of a pandemic's potential threat. Second, our study raises questions about the specific mechanism proposed by Worsnop (2017). She argues that democratic countries are more likely to impose trade and travel restrictions when they have a weak health infrastructure. However, her key assumption that poor health infrastructure would increase demands for border closures is not supported by our experiment. Future research should examine alternative accounts to explain Worsnop's (2017) cross-national evidence. Third, unlike the existing accounts, our study points to voters' lack of information about implications from border restrictions as a key explanation for why public support is particularly strong and border restrictions are common.

More broadly, our study contributes to research on the interplay between the international and domestic aspects of public health crises. A growing body of research suggests that the WHO plays an important role in shaping individual health behavior (Bayram and Shields 2021; Kreps et al. 2020). Our study demonstrates that the WHO and international health agreements can also affect individual policy attitudes in global health contexts. However, for the WHO's messages to influence health behavior and policy attitudes in the real world, people need to be exposed to such information. We know little about what motivates people to seek such messages or who has the right incentives and visibility to deliver those messages, an area that is ripe for exciting research.

References

Abutaleb, Yasmeen, and Damian Paletta. 2021. *Nightmare Scenario: Inside the Trump Administration's Response to the Pandemic that Changed History*. New York: HarperCollins.

Albertson, Bethany, and Shana Kushner Gadarian. 2015. *Anxious Politics: Democratic Citizenship in a Threatening World*. Cambridge: Cambridge University Press.

Alexander, Robin. 2021. *Machtverfall: Merkels Ende und das Drama der deutschen Politik*. Munich: Siedler Verlag.

Baekgaard, Martin, Julian Christensen, Jonas Krogh Madsen, and Kim Sass Mikkelsen. 2020. "Rallying around the Flag in Times of COVID-19: Societal Lockdown and Trust in Democratic Institutions." *Journal of Behavioral Public Administration* 3(2):1–12.

Baldwin, Peter. 1999. *Contagion and the State in Europe*, 1830–1930. Cambridge: Cambridge University Press.

Bayram, A. Burcu, and Todd Shields. 2021. "Who Trusts the WHO? Heuristics and Americans' Trust in the World Health Organization during the COVID-19 Pandemic." *Social Science Quarterly* 102(5):2312–30.

Berger, Jonah, and Katherine L. Milkman. 2012. "What Makes Online Content Viral?" *Journal of Marketing Research* 49(2):192–205.

Berinsky, Adam, Gregory Huber, and Gabriel Lenz. 2012. "Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk." *Political Analysis* 20(3):351–68.

Bermeo, Sarah Blodgett. 2017. "Aid Allocation and Targeted Development in an Increasingly Connected World." *International Organization* 71(4):735–66.

Bricker, Darrell. 2020. "Majority of People Want Borders Closed as Fear about COVID-19 Escalates." https://www.ipsos.com/en/majority-people-want-borders-closed-fear-about-covid-19-escalates

Brutger, Ryan, and Anton Strezhnev. 2022. "International Investment Disputes Media Coverage and Backlash against International Law." *Journal of Conflict Resolution* 66(6):983–1009.

Brutger, Ryan, Joshua D. Kertzer, Jonathan Renshon, Dustin Tingley, and Chagai M. Weiss. 2022. "Abstraction and Detail in Experimental Design." *American Journal of Political Science*. https://doi.org/10.1111/ajps.12710

Carter, David B., and Paul Poast. 2017. "Why Do States Build Walls? Political Economy, Security, and Border Stability." *Journal of Conflict Resolution* 61(2):239–70.

Chaudoin, Stephen. 2014. "Promises or Policies? An Experimental Analysis of International Agreements and Audience Reactions." *International Organization* 68(2):235–56.

Chilton, Adam, Kevin L. Cope, Charles Crabtree, and Mila Versteeg. 2021. "The Normative Force of Higher-order Law: Evidence from Six Countries during the COVID-19 Pandemic." Working Paper.

Chilton, Adam S. 2015. "The Laws of War and Public Opinion: An Experimental Study." *Journal of Institutional and Theoretical Economics: JITE* 171(1):181–201.

Chinazzi, Matteo, Jessica T. Davis, Marco Ajelli, Corrado Gioannini, Maria Litvinova, Stefano Merler, Ana Pastore Y. Piontti, et al. 2020. "The Effect of Travel Restrictions on the Spread of the 2019 Novel Coronavirus (COVID-19) Outbreak." *Science* 368(6489):395–400.

Cope, Kevin L., and Charles Crabtree. 2020. "A Nationalist Backlash to International Refugee Law: Evidence from a Survey Experiment in Turkey." *Journal of Empirical Legal Studies* 17(4):752–88.

Coppock, Alexander, Thomas Leeper, and Kevin Mullinix. 2018. "Generalizability of Heterogeneous Treatment Effect Estimates across Samples." *Proceedings of the National Academy of Sciences* 115(49):12441–6.

Dai, Xinyuan. 2005. "Why Comply? The Domestic Constituency Mechanism." *International Organization* 59(2):363–98.

De Vries, Catherine, Bert Bakker, Sara Hobolt, and Kevin Arceneaux. 2021. "Crisis Signaling: How Italy's Coronavirus Lockdown Affected Incumbent Support in Other European Countries." *Political Science Research and Methods* 9(3):451–67.

Devi, Sharmila. 2020. "Travel Restrictions Hampering COVID-19 Response." *The Lancet* 395(10233):1331–2.

Eichner, Martin, Markus Schwehm, Nick Wilson, and Michael G. Baker. 2009. "Small Islands and Pandemic Influenza: Potential Benefits and Limitations of Travel Volume Reduction as a Border Control Measure." *BMC Infectious Diseases* 9(1):1–5.

Errett, Nicole A., Lauren M. Sauer, and Lainie Rutkow. 2020. "An Integrative Review of The Limited Evidence on International Travel Bans as an Emerging Infectious Disease Disaster Control Measure." *Journal of Emergency Management* 18(1):7–14.

Fidler, David P. 2005. "From International Sanitary Conventions to Global Health Security: The New International Health Regulations." *Chinese Journal of International Law* 4(2):325–92.

Gallup. 2020. "Wellcome Global Monitor: How Covid-19 Affected People's Lives and Their Views about Science." https://cms.wellcome.org/sites/default/files/2021-11/wellcome-global-monitor-covid.pdf

Gilens, Martin, and Naomi Murakawa. 2002. "Elite Cues and Political Decision-making." *Research in Micropolitics* 6:15–49.

Gloger, Katja, and Georg Mascolo. 2021. *Ausbruch: Innenansichten einer Pandemie*. Munich: Piper Verlag.

Gostin, Lawrence O., Roojin Habibi, and Benjamin Mason Meier. 2020. "Has Global Health Law Risen to Meet the COVID-19 Challenge? Revisiting the International Health Regulations to Prepare for Future Threats." *Journal of Law, Medicine & Ethics* 48(2):376–81.

Gottlieb, Scott. 2021. *Uncontrolled Spread: Why COVID-19 Crushed Us and How We Can Defeat the Next Pandemic*. New York: Harper Collins.

Grépin, Karen Ann, Tsi-Lok Ho, Zhihan Liu, Summer Marion, Julianne Piper, Catherine Z. Worsnop, and Kelley Lee. 2021. "Evidence of the Effectiveness of Travel-related Measures during the Early Phase of the COVID-19 Pandemic: A Rapid Systematic Review." *BMJ Global Health* 6(3): e004537.

Gülzau, Fabian. 2021. "A 'New Normal' for the Schengen Area: When, Where and Why Member States Reintroduce Temporary Border Controls?" *Journal of Borderlands Studies*. https://doi.org/10.1080/08865655.2021.1996260

Habibi, Roojin, Gian Luca Burci, Thana De Campos, Danwood Chirwa, Margherita Cinà, Stéphanie Dagron, Mark Eccleston-Turner, et al. 2020. "Do Not Violate the International Health Regulations during the COVID-19 Outbreak." *The Lancet* 395(10225):664–66.

Hainmueller, Jens. 2012. "Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies." *Political Analysis* 20(1):25–46.

Hainmueller, Jens, and Daniel J. Hopkins. 2014. "Public Attitudes toward Immigration." *Annual Review of Political Science* 17:225–49.

Hainmueller, Jens, Dominik Hangartner, and Teppei Yamamoto. 2015. "Validating Vignette and Conjoint Survey Experiments against Real-world Behavior." *Proceedings of the National Academy of Sciences* 112(8):2395–400.

Harrison, Mark. 2006. "Disease, Diplomacy and International Commerce: The Origins of International Sanitary Regulation in the Nineteenth Century." *Journal of Global History* 1(2):197–217.

Hassner, Ron E., and Jason Wittenberg. 2015. "Barriers to Entry: Who Builds Fortified Boundaries and Why?" *International Security* 40(1):157–90.

Healy, Andrew, and Neil Malhotra. 2009. "Myopic Voters and Natural Disaster Policy." *American Political Science Review* 103(3):387–406.

Honig, Dan, and Catherine Weaver. 2019. "A Race to the Top? 'The Aid Transparency Index and the Social Power of Global Performance Indicators." *International Organization* 73(3):579–610.

Huddy, Leonie, Stanley Feldman, Theresa Capelos, and Colin Provost. 2002. "The Consequences of Terrorism: Disentangling the Effects of Personal and National Threat." *Political Psychology* 23(3):485–509.

Kenny, Charles. 2021. *The Plague Cycle: The Unending War between Humanity and Infectious Disease*. New York: Scribner.

Kenwick, Michael R., and Beth A. Simmons. 2020. "Pandemic Response as Border Politics." *International Organization* 71(1):36–58.

Kobayashi, Yoshiharu, Tobias Heinrich, and Kristin A. Bryant. 2021. "Public Support for Development Aid during the COVID-19 Pandemic." *World Development* 138(2): 105248.

Kreps, Sarah E., and Geoffrey P.R. Wallace. 2016. "International Law, Military Effectiveness, and Public Support for Drone Strikes." *Journal of Peace Research* 53(6): 830–44.

Kreps, Sarah E., Sandip Prasad, John S. Brownstein, Yulin Hswen, Brian T. Garibaldi, Baobao Zhang, and Douglas L. Kriner. 2020. "Factors Associated with US Adults' Likelihood of Accepting COVID-19 Vaccination." *JAMA Network Open* 3(10):e2025594.

Lee, Kelley, Catherine Z. Worsnop, Karen A. Grépin, and Adam Kamradt-Scott. 2020. "Global Coordination on Cross-border Travel and Trade Measures Crucial to COVID-19 Response." *The Lancet* 395(10237):1593.

Lindholt, Marie Fly, Frederik Jørgensen, Alexander Bor, and Michael Bang Petersen. 2021. "Support For Border Security During the COVID-19 Pandemic: Evidence on Levels and Predictors from Eight Western Democracies in 2020." *Journal of Elections, Public Opinion and Parties* 31(1):1–14.

Linebarger, Christopher, and Alex Braithwaite. 2022. "Why Do Leaders Build Walls? Domestic Politics, Leader Survival, and the Fortification of Borders." *Journal of Conflict Resolution* 66(5):704–28.

Lupu, Yonatan, and Geoffrey P.R. Wallace. 2019. "Violence, Nonviolence, and the Effects of International Human Rights Law." *American Journal of Political Science* 63(2):411–26.

McDonald, Jared. 2020. "Avoiding the Hypothetical: Why "Mirror Experiments" are an Essential Part of Survey Research." *International Journal of Public Opinion Research* 32(2):266–83.

Mendez-Brito, Alba, Charbel El Bcheraoui, and Francisco Pozo-Martin. 2021. "Systematic Review of Empirical Studies Comparing the Effectiveness of Non-Pharmaceutical Interventions against Covid-19." *Journal of Infection* 83:281–93.

Miller, Fiona, Steven Young, Mark Dubrow, and Kaveh Shojania. 2021. "Vulnerability of The Medical Product Supply Chain: The Wake-Up Call of Covid-19." *BMJ Quality and Safety* 30:331–35.

Mullinix, Kevin J., Thomas J. Leeper, James N. Druckman, and Jeremy Freese. 2015. "The Generalizability of Survey Experiments." *Journal of Experimental Political Science* 2(2):109–38.

Murdie, Amanda M., and David R. Davis. 2012. "Shaming and Blaming: Using Events Data to Assess the Impact of Human Rights INGOs." *International Studies Quarterly* 56(1):1–16.

Neumayer, Eric. 2006. "Unequal Access to Foreign Spaces: How States Use Visa Restrictions to Regulate Mobility in a Globalized World." *Transactions of the Institute of British Geographers* 31(1):72–84.

Nyhan, Brendan, and Jason Reifler. 2010. "When Corrections Fail: The Persistence of Political Misperceptions." *Political Behavior* 32(2):303–30.

Palan, Stefan, and Christian Schitter. 2018. "Prolific.ac—A Subject Pool for Online Experiments." *Journal of Behavioral and Experimental Finance* 17:22–27.

Reddy, K. Srikanth, Salima S. Mithani, Lindsay Wilson, and Kumanan Wilson. 2021. "Canada's Response to International Travel during Covid-19 Pandemic—A Media Analysis." *BMC Public Health [Electronic Resource]* 21(1):1–8.

Shah, Sonia. 2016. *Pandemic: Tracking Contagions, from Cholera to Ebola and Beyond*. New York: Macmillan.

Shiraef, Mary A., Paul Friesen, Lukas Feddern, and Mark A. Weiss. 2022. "Did Border Closures Slow SARS-COV-2?" *Scientific Reports* 12(1):1–13.

Simmons, Beth A. 2009. *Mobilizing for Human Rights: International Law in Domestic Politics*. Cambridge: Cambridge University Press.

Soroka, Stuart N. 2014. *Negativity in Democratic Politics: Causes and Consequences*. Cambridge: Cambridge University Press.

Steele, Carie. 2017. "Public Goods and Donor Priorities: The Political Economy of Development Aid for Infectious Disease Control." *Foreign Policy Analysis* 13(4):986–1002.

WHO. 2016. International Health Regulations (2005) Third Edition. World Health Organization. https://www.who.int/publications/i/item/978924158049

WHO. 2021. "Report of the Review Committee on the Functioning of the International Health Regulations (2005) during the COVID-19 Response." https://www.who.int/publications/m/item/a74-9-who-s-work-in-health-emergencies

WHO. 2020. "Updated WHO Recommendations for International Traffic in relation to COVID-19 Outbreak." https://www.who.int/news-room/articles-detail/updated-who-recommendations-for-international-traffic-in-relation-to-covid-19-outbreak

Witt, John Fabian. 2020. *American Contagion: Epidemics and the Law from Smallpox to COVID-19*. New Haven: Yale University Press.

Worsnop, Catherine Z. 2017. "Domestic Politics and the WHO's International Health Regulations: Explaining the Use of Trade and Travel Barriers during Disease Outbreaks." *Review of International Organizations* 12(3):365–95.

Worsnop, Catherine Z. 2019. "Concealing Disease: Trade and Travel Barriers and The Timeliness of Outbreak Reporting." *International Studies Perspectives* 20(4):344–72.

Worsnop, Catherine Z., Adam Kamradt-Scott, Kelley Lee, Grépin Karen, Summer Marion, Julianne Piper, and Felix Rothery. 2021. "Legal Compliance is Not Enough: Cross-border Travel and Trade Measures and COVID-19." *International Studies Review* 23(2):302–45.

Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Appendix A: Question Wordings
Appendix B: Details on Samples
Appendix C: Experimental Vignette
Appendix D: Higher Severity and Poor Medical Condition Cases
Appendix E: Causal Moderation Effects of WHO Treatments
Appendix F: What Explains Preference for Openness?
Appendix G: Examining News Coverage for WHO and IHR