THE ETHICAL PROPRIETY OF COVID-19 LOCKDOWNS: UNDERSTANDING THE HUMAN RIGHTS TRADE-OFF BETWEEN LIVES AND LIVELIHOODS

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This Comment will examine the ethical propriety of lockdown measures implemented in response to the COVID-19 pandemic. Governments throughout the world have implemented lockdowns—stay-at-home orders, curfews, quarantines, and similar restrictions—to reduce the spread of SARS-CoV-2, the virus that causes COVID-19. Although research demonstrates that lockdowns are effective at reducing the spread of COVID-19, thereby saving lives, more stringent lockdowns have led to significant social and economic impacts. Such impacts disproportionately affect vulnerable populations, which in turn hinders a lockdown's effectiveness.

This Comment seeks to identify the critical components to a successful lockdown by incorporating ethics and human rights considerations to the analysis. A lockdown's effectiveness depends on the implementing country's ability to remedy the disparate economic impacts and human rights burdens experienced by its more vulnerable populations. By focusing on the human rights implications of COVID-19 response policies, this Comment concludes that the degree of a lockdown should fluctuate based on the needs and capabilities of each country.

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I. INTRODUCTION

On December 31, 2019, the Wuhan Municipal Health Commission reported cases of pneumonia from unknown causes in Hubei Province, China.¹ Thereafter, investigations confirmed that the source of these cases was a novel coronavirus, subsequently named SARS-CoV-2.² This virus causes the disease known as COVID-19 (COronaVIrusDisease-2019).³ At the time of this writing, there have been over one hundred million confirmed cases and more than two million confirmed deaths from that disease, which has spread across 223 countries and territories.⁴ What began as an unknown and novel case of pneumonia has spiraled into an unprecedented global health crisis that has given rise to questions regarding a state's obligation and responsibility to balance controlling and preventing the spread of disease with maintaining human rights.

On January 13, 2020, Thailand became the first country outside of China to

^{1.} Pneumonia of Unknown Cause - China, WORLD HEALTH ORG. (Jan. 5, 2020), https://www.who.int/csr/don/05-january-2020-pneumonia-of-unkown-cause-china/en/.

^{2.} Identifying the Source of the Outbreak, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/about-epidemiology/identifyingsource-outbreak.html (July 1, 2020).

^{3.} Id.

^{4.} Coronavirus Disease (COVID-19) Pandemic, WORLD HEALTH ORG., https://www.who.int/emergencies/diseases/novel-coronavirus-2019 (Feb. 11, 2021).

confirm a case of COVID-19.⁵ Once the virus spread beyond the borders of China, a domino effect began to emerge, as country after country fell victim to the disease.⁶ On March 11, 2020, the World Health Organization (WHO) officially declared COVID-19 a pandemic.⁷

The COVID-19 pandemic has threatened the lives of millions throughout the world. The policy measures countries implemented in response to this threat have endangered the previously enjoyed liberties and the livelihoods of individuals throughout the world. In turn, states responding to the pandemic have been forced to confront the trade-off between lives and livelihoods. This trade-off arises because each state's containment policy, enacted to minimize the spread of COVID-19, burdens, to some extent, certain fundamental rights entrenched within human rights law.

The essence of human rights law is engrained with an understanding that "[t]he rights of every man are diminished when the rights of one man are threatened"⁸ and "[a]ll that is necessary for the triumph of evil is that good men [and women] do nothing."⁹ The evolution of human rights law has coincided with the rise of the liberal democratic state.¹⁰ Human rights—in the abstract—can be understood as denoting a special category of moral principles or norms for certain standards of human behavior that all humans may invoke.¹¹ Human rights law codifies these principles by providing guarantees to hold governments accountable for their conduct under national legal processes.¹² In liberal democratic states, majoritarianism legitimizes legislation and the bureaucratized functioning of the executive.¹³ Historically, majorities have shown little regard for "numerical minorities."¹⁴ These minority groups include "sentenced criminals, linguistic or religious groups, non-nationals, indigenous peoples, and the socially stigmatized."¹⁵

- 14. *Id*.
- 15. Id.

^{5.} Lisa Schnirring, *Thailand Finds Wuhan Novel Coronavirus in Traveler from China*, CTR. FOR INFECTIOUS DISEASE RSCH. & POL'Y (Jan. 13, 2020), https://www.cidrap.umn.edu/news-perspective/2020/01/thailand-finds-wuhan-novel-coronavirus-traveler-china; *WHO Statement on Novel Coronavirus in Thailand*, WORLD HEALTH ORG. (Jan. 13, 2020), https://www.who.int/news-room/detail/13-01-2020-who-statement-on-novel-coronavirus-in-thailand.

^{6.} *Identifying the Source of the Outbreak, supra* note 2.

^{7.} Archived: WHO Timeline – COVID-19, WORLD HEALTH ORG. (Apr. 27, 2020), https://www.who.int/news-room/detail/27-04-2020-who-timeline---covid-19.

^{8.} John F. Kennedy, Radio and Television Report to the American People on Civil Rights (June 11, 1963) (transcript available at https://www.jfklibrary.org/archives/other-resources/john-f-kennedy-speeches/civil-rights-radio-and-television-report-19630611).

^{9.} John F. Kennedy, Address to Canadian Parliament, Ottawa (May 17, 1961) (transcript available at https://www.presidency.ucsb.edu/documents/address-before-the-canadian-parliament-ottawa) (attributing quotation to Edmund Burke).

^{10.} Frans Viljoen, International Human Rights Law: A Short History, U.N. CHRON., https://www.un.org/en/chronicle/article/international-human-rights-law-short-history (last visited Aug. 27, 2021).

^{11.} *Id*.

^{12.} *Id*.

^{13.} *Id*.

Therefore, we need to protect the rights and existence of these "numerical minorities, the vulnerable, and the powerless."¹⁶ This additional protection is what human rights law guarantees, by "agreeing on the rules governing society in the form of a constitutionally entrenched and justiciable bill of rights containing basic human rights for all."¹⁷ Therefore, states must recognize this backdrop of legal protection for human rights when adopting containment policies that will inevitably diminish the rights of the individual.

The severity of the COVID-19 pandemic has forced states to tackle public health emergencies in ways that highlight ambiguities within the context of international human rights law. Currently, state responses continue to vary in both substance and degree. This Comment will analyze the human rights implications of lockdown measures¹⁸ implemented in response to COVID-19 prior to the creation and dissemination of COVID-19 vaccines.¹⁹ In doing so, it will argue that the degree of a lockdown measure must correspond with the economic needs of the implementing state, so as to promote the shared public health interest of protecting a nation's population from disease. The COVID-19 pandemic has demonstrated the importance human rights law plays in implementing an effective containment strategy, as well as ensuring equity among the populations most vulnerable to a government's stringent policy response. By looking at the pandemic from this perspective, this Comment will consider ways to strengthen international law in light of its ambiguities and limitations. Specifically, this Comment will discuss the intended and unintended consequences of lockdown measures made in response to COVID-19. This Comment will argue that the efficacy of lockdown measures will depend on a combination of factors, with the most important being a country's economic capacity to implement containment policies and effectively remedy the disparate effects felt amongst a nation's most vulnerable populations. While it will be argued that lockdowns-in their most basic and least restrictive form-should be implemented in every country during a pandemic, the restrictiveness of such a policy

19. See Comirnaty and Pfizer-BioNTech COVID-19 Vaccine, U.S. FOOD & DRUG ADMIN., https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/pfizer-biontech-covid-19-vaccine (last visited Sept. 26, 2021) (stating that on December 11, 2020, the U.S. Food and Drug Administration issued the first emergency use authorization for a vaccine for the prevention of COVID-19); U.S. FOOD & DRUG ADMIN., PFIZER-BIONTECH COVID-19 VACCINE EMERGENCY USE AUTHORIZATION REVIEW MEMORANDUM 8 (DEC. 11, 2020), https://www.fda.gov/media/144416/download (stating same). Lockdown measures are types of quarantines implemented by governmental authorities during an emergency situation. Najmul Haider et al., Lockdown Measures in Response to COVID-19 in Nine Sub-Saharan African Countries, 5 BMJ GLOB. HEALTH, Oct. 7, 2020, at 2 ("[Lockdowns are a] set of measures aimed at reducing transmission of COVID-19 that are mandatory, applied indiscriminately to a general population and involve some restrictions on the established pattern of social and economic life.").

^{16.} Id.

^{17.} Id.

^{18.} Lockdown measures are types of quarantines implemented by governmental authorities during an emergency situation. *See* Najmul Haider et al., *Lockdown Measures in Response to COVID-19 in Nine Sub-Saharan African Countries*, 5 BMJ GLOB. HEALTH, Oct. 7, 2020, at 2 ("[Lockdowns are a] set of measures aimed at reducing transmission of [disease] that are mandatory, applied indiscriminately to a general population and involve some restrictions on the established pattern of social and economic life.").

should depend on a country's existing infrastructure to treat patients and on its capacity to test and trace the spread of a virus. However, irrespective of these factors, it is important to implement lockdowns as quickly as possible because lockdown policies that were instituted early have demonstrated a strong correlation to lower infection rates.²⁰ Overall, this Comment will identify the various ethical and economic considerations pertinent to an effective lockdown policy, while highlighting the role timing and expansive test-and-trace programs play in combatting the global spread of a contagion like COVID-19.

Part II will outline the obligations, powers, and procedures under international human rights law that are relevant during a global health crisis. Part III will trace how nations throughout the world have tackled the spread of SARS-CoV-2. Part IV will evaluate the effectiveness of lockdown measures from an ethical and human rights perspective. Part V will then offer recommendations to best achieve the overall public health purpose in facing future pandemics while limiting burdens on vulnerable populations and unnecessary encroachments on internationally recognized human rights.

II. INTERNATIONAL HUMAN RIGHTS LAW AND DEROGATIONS GENERALLY

The Universal Declaration of Human Rights (UDHR), adopted in 1948, established the groundwork for the development of the body of international human rights law.²¹ The UDHR set out the basic civil, political, economic, social, and cultural rights to which all humans beings are entitled.²² In doing so, the UDHR established a set of fundamental norms for human rights that every state should respect and protect.²³ The UDHR, together with the International Covenant on Civil and Political Rights (ICCPR)²⁴ and its two Optional Protocols, and with the International Covenant on Economic, Social, and Cultural Rights (ICESCR),²⁵ form the International Bill of Human Rights.²⁶ In total, this collection of international human rights law has recognized obligations that compel states both to refrain from curtailing the enjoyment of human rights and to protect individuals and groups

^{20.} Giorgio Guzzetta et al., *Impact of a Nationwide Lockdown on SARS-CoV-2 Transmissibility, Italy,* 27 EMERGING INFECTIOUS DISEASES J. 267 (2021), https://wwwnc.cdc.gov/eid/article/27/1/20-2114_article.

^{21.} G.A. Res. 217 (III) A, Universal Declaration of Human Rights (Dec. 10, 1948).

^{22.} Id.

^{23.} Id.

^{24.} *See generally* International Covenant on Civil and Political Rights, Dec. 16, 1966, S. Exec. Doc. E, 95-2 (1978), 999 U.N.T.S. 171 (defining the basic rights, such as right to life; freedom from torture and cruel, inhuman, or degrading treatment; freedom from slavery; right to liberty; and right to respect for privacy and family).

^{25.} *See generally* International Covenant on Economic, Social, and Cultural Rights, Jan. 3, 1976, S. Exec. Doc. D, 95-2, 993 U.N.T.S. 3 (recognizing the right to an adequate standard of living; the right to enjoy the highest attainable standard of physical and mental health; the right of everyone to education; and the right to take part in cultural life).

^{26.} See U.N. Office of High Comm'r for Hum. Rts, Fact Sheet No. 2 (Rev. 1), TheInternationalBillofHumanRights(1996)http://www.ohchr.org/Documents/Publications/FactSheet2Rev.1en.pdf___(outlininggeneralprinciples or standards of human rights recognized by international law).

against human rights abuses.27

A. Human Rights Obligations Under International Law

The right to health is most clearly embodied in Article 25 of the UDHR, which states that "[e]veryone has the right to a standard of living adequate for the health and well-being of himself and his family^{"28} Similarly, Article 12 of the 1966 ICESCR asserts that "[t]he States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health."²⁹ Despite these recognitions, international human rights law allows states to limit the exercise of most human rights if it is *necessary* to protect the rights of others or to protect collective interests.³⁰

As the global death toll from COVID-19 surpasses two million people, the need to protect others has never been more pressing.³¹ The ICCPR recognizes that states may take extraordinary measures—to protect public health—that may restrict certain human rights.³² Under Article 4 of the ICCPR, derogations of civil and political rights are only permitted "in time of public emergency which threaten[s] the life of the nation."³³ These restrictions must meet the requirements of legality, necessity, proportionality, and non-discrimination.³⁴ The Siracusa Principles on the Limitation and Derogation Provisions (the Siracusa Principles) in the ICCPR serve as the basis for how states may restrict human rights to protect "the life of the nation."³⁵

Under the Siracusa Principles, states must avoid applying restrictions in an arbitrary and discriminatory manner.³⁶ The "necessity" of a restriction embodies four separate prongs.³⁷ The Siracusa Principles outline that "necessary" implies that the limitation: "(a) is based on one of the grounds justifying limitations recognized by the relevant article of the Covenant; (b) responds to a pressing public or social need; (c) pursues a legitimate aim; and (d) is proportionate to that aim."³⁸ Each state bears the burden of justifying a restriction guaranteed under the ICCPR, which is assessed on "objective considerations."³⁹ More precisely, when implementing a

32. International Covenant on Civil and Political Rights, supra note 24, art. 12.

33. Id. art. 4.

35. Nina Sun, Applying Siracusa: A Call for a General Comment on Public Health Emergencies, 22 HEALTH & HUM. RTS. J. 387, 387 (2020).

37. Id. para. 10.

^{27.} Id.

^{28.} Michaela S. Halpern, *State Obligations Under Public International Law During Pandemics*, 35 EMORY INTL. L. REV. 1, 3 (2020) (quoting Universal Declaration of Human Rights).

^{29.} Id. at 3 (quoting International Covenant on Economic, Social, and Cultural Rights).

^{30.} Audrey Lebret, COVID-19 Pandemic and Derogation to Human Rights, 7 J.L. & BIOSCIENCES 1, 1 (2020).

^{31.} COVID-19 Coronavirus Pandemic, WORLDOMETER, https://www.worldometers.info/coronavirus/ (last updated Jan. 19, 2021).

^{34.} Comm'n on Hum. Rts., The Siracusa Principles on the Limitation and Derogation Provisions in the International Covenant on Civil and Political Rights, U.N. Doc. E/CN.4/1985/4 (Sept. 28, 1984) [hereinafter Siracusa Principles].

^{36.} Siracusa Principles, supra note 34, para. 7-9.

^{39.} Id. para. 10-12.

restrictive measure, national authorities are responsible for ensuring that ordinary measures would not adequately "deal with the threat to the life of the nation."⁴⁰

Ultimately, state policies will inevitably burden some human rights during a public emergency, like the COVID-19 pandemic. However, an appropriate balance between a policy's intrusion on a human right and its improvement of the public health must underlie each government's response. The Siracusa Principles codify this commitment by pronouncing that states "may take measures derogating from their obligations under the present Covenant to the extent strictly required by the exigencies of the situation," so long as such measures do not discriminate on the basis of "race, colour, sex, language, religion, political or other opinion, national or social origin²⁴¹

The WHO is the international organization at the forefront of the COVID-19 pandemic.⁴² The WHO, established in 1948, is an agency of the United Nations (U.N.) tasked with the responsibility of responding to health emergencies, including infectious disease epidemics and pandemics.⁴³ The World Health Assembly (WHA) is the WHO's supreme decision-making body and is composed of delegates representing the 194 member states that comprise the WHO.⁴⁴ Under the 1946 WHO Constitution, the WHO is authorized "to negotiate conventions, regulations, and recommendations on any public health matter."⁴⁵ The WHO has the power to create binding laws.⁴⁶ To date, the WHO has created three "hard" law instruments: the Framework Convention on Tobacco Control, the Nomenclature Regulations that require member states to use up-to-date versions of the International Classification of Diseases, and the International Health Regulations (IHR) of 2005.⁴⁷

The IHR is a contemporary treaty that may be used in managing public health emergencies and has been utilized by the WHO in addressing the COVID-19 pandemic.⁴⁸ The IHR, agreed to by 194 WHO member states and adopted by the WHA, gives the WHA the power to adopt regulations "designed to prevent the international spread of disease."⁴⁹ These regulations "enter into force for all WHO

^{40.} Id. para. 39-41.

^{41.} International Covenant on Civil and Political Rights, supra note 24, art. 2.

^{42.} Tatjana Sachse, *COVID-19: The Often Overlooked Relevance of the World Health Organization*, SIDLEY AUSTIN LLP (Apr. 9, 2020), https://www.sidley.com/en/insights/newsupdates/2020/04/covid19-relevance-of-the-world-health-organization.

^{43.} Constitution of the World Health Organization art. 2, July 22, 1946, 14 U.S.T.S. 185, (entered into force Apr. 7, 1948) [hereinafter WHO Constitution].

^{44.} Id. art. 9.

^{45.} Lawrence O. Gostin et al., *Has Global Health Law Risen to Meet the COVID-19 Challenge?: Revisiting the International Health Regulations to Prepare for Future Threats*, 48 J. L., MED. & ETHICS 376, 377 (2020).

^{46.} Halpern, supra note 28, at 6; WHO Constitution, supra note 43, art. 2.

^{47.} Halpern, *supra* note 28, at 6.

^{48.} Oona Hathaway & Alasdair Phillips-Robins, *COVID-19 and International Law Series: WHO's Pandemic Response and the International Health Regulations*, JUST SEC. (Dec. 8, 2020), https://www.justsecurity.org/73753/covid-19-and-international-law-series-whos-pandemic-response-and-the-international-health-regulations/.

^{49.} See WORLD HEALTH ORG., INTERNATIONAL HEALTH REGULATIONS (2005), at 1-2 (3d

Member States that do not affirmatively opt out of them within a specified time period."⁵⁰ The IHR's purpose and scope is "to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade."⁵¹

In Article 6, the IHR imposes a duty to report to the WHO whenever signatory states encounter events that could be an international public health concern.⁵² The IHR endows the WHO with the power to declare an event a "Public Health Emergency of International Concern (PHEIC)."⁵³ Since its inception, the WHO has only issued a PHEIC declaration six times.⁵⁴ These instances include polio, Zika, Influenza H1N1, Ebola, and most recently COVID-19.⁵⁵ Furthermore, the IHR binds states to build their national public health capacities to "prevent, detect, and respond" to the international spread of disease.⁵⁶ In doing so, the IHR sets forth concrete obligations for states to follow, but leaves them with the autonomy to develop their own domestic health legislation that "should uphold the purpose" of the IHR.⁵⁷ Specifically, national measures under the IHR must respect "the dignity, human rights, and fundamental freedoms of persons."⁵⁸ These powers afford the WHO substantial power over international health affairs. In this regard, the IHR is the most relevant body of law to address the COVID-19 pandemic and the adequacy of governmental responses.

B. Fragmentation of International Law

One of the most difficult challenges of the pandemic is the fact that nearly every country, each possessing its own principles and institutions, faces a common enemy that necessitates a unified approach to stop its spread. A virus like COVID-19 transcends boundaries, institutions, and social structures. However, the international community's decentralized web of law and policy makes combatting contagions even more difficult. In reality, specialized law-making as well as institution-building (e.g., trade law, human rights law, environment law) take place with "relative ignorance of legislative and institutional activities in the adjoining fields and of the

ed. 2016), https://www.who.int/publications/i/item/9789241580496 ("The purpose and scope of the IHR (2005) are 'to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade."").

^{50.} Id. at 1.

^{51.} Id.

^{52.} Halpern, supra note 28, at 6.

^{53.} Mark Eccleston-Turner & Scarlett McArdle, *The Law of Responsibility and the World Health Organisation: A Case Study on the West African Ebola Outbreak, in* INFECTIOUS DISEASES IN THE NEW MILLENNIUM: LEGAL AND ETHICAL CHALLENGES 89, 90 (M. Eccleston-Turner et al. eds. 2020).

^{54.} Id. at 91.

^{55.} Gostin et al., supra note 45, at 377-78.

^{56.} Id.

^{57.} See id. at 378 (quoting WHO's International Health Regulations).

^{58.} Id. (quoting WHO's International Health Regulations).

general principles and practices of international law."⁵⁹ As a result, "conflicts between rules or rule systems, deviating institutional practices, and . . . the loss of an overall perspective on the law" compound the problem associated with coordinating a global response that addresses the needs of the world, not just of one country.⁶⁰ As such, fragmentation creates the danger of conflicting and incompatible rules, principles, rule-systems, and institutional practices, which only intensifies the difficulties associated with implementing a prompt and well-targeted containment strategy. Thus, an analysis of the efficacy of policy measures made in response to COVID-19 must consider the reality of an increasingly globalized world and its diverse governing bodies and institutions.

Examining the fragmented nature of international law within the context of a public health emergency raises questions regarding what takes precedence when a conflict of laws or treaties arise. If two different rules or sets of rules are invoked in regard to the same subject matter, or if the relevant treaties seem to point to different directions in their application by a party, then how does one resolve this conflict? During a pandemic, countries must not only consider the various social and economic factors that underlie a containment policy, but also the human rights implications of such a policy or action. This problem is intensified when decisions between different countries possess different background justifications, emerge from different legislative policies, or aim at divergent ends. When the threat is the same, but the answers to such a threat are left open to interpretation, responding to the needs of the country and the world may often clash. Given this background—and the relevant human rights treaties, bodies of law, and powers—it is not entirely clear how countries should reconcile competing sources of normative authority in international law, let alone who resolves them.

Ultimately, the IHR and other relevant bodies of law pertaining to human rights law leave much open to interpretation. Consequently, the various policy responses to the COVID-19 pandemic may all be appropriate within the confines of international human rights law. This Comment acknowledges the wide breadth of these responses and attempts to analyze which components underlie a successful containment policy that also best effectuates the goals of international human rights law. Harmonizing the differences between the most successful containment policies will then help paint a clearer picture—within the framework of international law as to what it means to protect populations from disease and understand the human rights trade-off between lives and livelihoods.

III. OVERVIEW OF THE COVID-19 PANDEMIC AND NATIONAL RESPONSES

Prior to the development of an effective vaccine, countries tackled COVID-19 with various approaches, all of which have varied in their degree of success.⁶¹

^{59.} Martti Koskenniemi (Chairman), Study Group of the Int'l L. Comm'n, Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law, \P 8, U.N. Doc. A.CN.4/L.682 (Apr. 13, 2006).

^{60.} Id.

^{61.} See generally Roy G. Beran, The Coronavirus (COVID-19) Pandemic in Australia – History and Potential Lessons, 39 MED. & L. 97 (2020) (mapping out Australia's strict response to

Although a unified strategy across nations could perhaps have curbed the spread of COVID-19 more effectively,⁶² the value placed on state autonomy, even under international law, has facilitated the disparity among national strategies. In turn, the pandemic has wreaked both biological and economic disaster throughout the world.⁶³ The fact that the virus spreads person-to-person through respiratory droplets further compounds the problem of fragmented international responses.⁶⁴ As a consequence, countries have adopted and implemented various restrictive measures to combat the airborne spread of this disease.⁶⁵ Inherent in each government's response is the question: How far is too far?

A. Abuse of Emergency Powers During the COVID-19 Pandemic

Historically, states have utilized real or manufactured crises, or exaggerated threats to the public, in order to validate violations of law and human rights.⁶⁶ The COVID-19 pandemic has thus provided a pretext for certain countries to adopt repressive measures for purposes unrelated to the pandemic.⁶⁷ Due to the imminent threat COVID-19 poses, proper oversight and narrowly tailored response policies are vital to mitigate this abuse of emergency powers and to promote transparent and well-targeted decisions.⁶⁸

The most common-and arguably the most effective-governmental response

65. *See* Duguet & Rial-Sebbag, *supra* note 61, at 173 ("The responses have been different and, as the pandemic developed, countries have been affected by the virus in different ways.").

66. MICHAEL A. WEBER ET AL., CONG. RSCH. SERV., R46430, GLOBAL DEMOCRACY AND HUMAN RIGHTS IMPACTS OF COVID-19: IN BRIEF 3 (2020).

COVID-19, which response included fines imposed upon those who ignored the restrictions); Anne-Marie Duguet & Emmanuelle Rial-Sebbag, *The Fight Against the COVID 19 Epidemic in France: Health Organisation and Legislative Adaptation*, 39 MED. & L. 173 (2020) (examining France's approach to COVID-19 and its impact of the law on human rights and health regulations); Jonathan Davies, Legal and Ethical Ramifications of COVID-19 in Israel, 39 MED. & L. 225 (2020) (outlining the "swift precautions" to COVID-19 enacted by the Israeli government).

^{62.} *See* Gostin et.al., *supra* note 45, at 377 (discussing need for revised and updated global health initiatives).

^{63.} See generally Coronavirus (COVID-19) Deaths, OUR WORLD IN DATA, https://ourworldindata.org/covid-deaths (last visited Sept. 11, 2021) (displaying real-time statistics on the human toll of the pandemic); Alexander Chudik et al., Economic Consequences of Covid-19: A Counterfactual Multi-Country Analysis, VOXEU (Oct. 19, 2020), https://voxeu.org/article/economic-consequences-covid-19-multi-country-analysis (collating a variety of economic quantifications of the impact of the Covid-19 pandemic).

^{64.} See How Covid-19 Spreads, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html (July 14, 2021) (detailing how Covid-19 spreads through respiratory droplets produced when an infected person coughs, sneezes, or talks, as well as via microscopic airborne particles that remain suspended in the air and are subsequently breathed in by others).

^{67.} Id.

^{68.} See Lisa Forman & Jillian Clare Kohler, Global Health and Human Rights in the Time of COVID-19: Response, Restrictions, and Legitimacy, 19 J. HUM. RTS. 547, 553 (2020) ("Human rights continue to offer standards, principles, and rules that could center equity and vulnerable populations in COVID-19-related law, policy, and practice, and offer key protections to challenge inequities in these domains.").

to COVID-19 has been restrictions on the freedom of movement.⁶⁹ States have justified the legality of such restrictions by issuing emergency declarations promulgated in accordance with domestic and international law.⁷⁰ International law explicitly allows countries to take emergency measures to protect the health and well-being of their populations.⁷¹ According to the International Center for Not-for-Profit Law (ICNL), more than eighty countries have instituted emergency declarations in response to COVID-19, and more than one hundred countries have taken measures that directly affect the right to free assembly.⁷²

International law places a precedence on the power of states to govern within their territory, but the scope and duration of these emergency declarations and measures have, in many cases, strayed far from an even-handed approach. Countries like Algeria, and even sub-state actors like Hong Kong, have banned peaceful protests, citing public health grounds.⁷³ Civil liberties, including freedom of expression, freedom of the press, and free access to information, have been compromised under the guise of curtailing the spread of misinformation about the virus.⁷⁴ For example, Egypt and Iran blocked or censored websites and online commentary about COVID-19, while Burma (Myanmar), Cambodia, India, the Philippines, and Turkey reportedly detained or reprimanded journalists in connection with their reporting about the virus.⁷⁵

Looking to the West, in the United States, massive civil and political demonstrations occurred in response to the Black Lives Matter movement and the 2020 general elections.⁷⁶ Against the backdrop of the COVID-19 pandemic, law enforcement authorities across the country sought to limit individuals' right to freedom of assembly.⁷⁷ In doing so, law enforcement personnel at the municipal, county, state, and federal levels "committed widespread and egregious human rights violations against people protesting about the unlawful killings of Black people and calling for police reform."⁷⁸ Law enforcement authorities used the public health crisis to justify limitations on the right to freedom of assembly and to excuse their human rights violations against protestors.⁷⁹ Furthermore, between March and November 2020, U.S. authorities used an emergency health directive to summarily

77. Id.

^{69.} See WEBER, supra note 66, at 5 ("[M]ore than 100 countries have taken measures that affect free assembly").

^{70.} See id. at 2-4 (discussing how states use public health crises as pretext to impose restrictions).

^{71.} See id. at 1 (explaining how certain international human rights treaties outline permissible emergency curtailments of human rights).

^{72.} Id. at 5.

^{73.} Id.

^{74.} Id.

^{75.} Id. at 6–7.

^{76.} Amnesty Int'l, Amnesty International Report 2020/21: The State of the World's Human Rights, at 383 (2021).

^{79.} See id. ("Amnesty International documented 125 separate incidents of unlawful police violence against protestors in 40 states and Washington, D.C., between 26 May and 5 June alone.").

expel more than 330,000 people apprehended for allegedly making unauthorized border crossings.⁸⁰ This policy measure raised concerns that the Trump administration was using the pandemic "as a pretext to set aside due process obligations and intensify its clampdown on asylum seekers and immigration in general."⁸¹

Ultimately, every government's response to the pandemic implicates the question of how to reconcile the retention of individual freedoms with the urgency of addressing a public health crisis. International law enshrines individual rights and freedoms through several human rights treaties that state parties must recognize.⁸² Thus far, efforts to combat COVID-19 have implicated several identifiable rights under international human rights law.⁸³ These implicated rights include freedom of movement, freedom of assembly, the right to respect property, the right to respect private and family life, freedom of expression, and the right to free elections.⁸⁴ These rights differ from absolute rights—such as the right to life—because international law recognizes the right of states to place restrictions on their exercise.⁸⁵ Particularly, states have a right to derogate from their obligations under international human rights law if the circumstances permit.⁸⁶ Thus, states throughout the globe have come to justify the fact that their "emergency measures" have restricted the exercise of non-absolute rights during the pandemic by referencing their obligation to protect public health and to maintain public order.⁸⁷

B. The Relative Successes and Failures of Strict Lockdown Policies

In the wake of the COVID-19 pandemic, governments around the world have structured their response plans around social distancing and hygiene.⁸⁸ The successes of some of the most restrictive lockdown measures implemented throughout the world means that policymakers have to weigh the relative success of strict lockdown policies against their consequences, specifically when they implicate human rights.⁸⁹ Australia has applied some of the most extreme shutdown orders,

^{80.} Id. at 384.

^{81.} Sarah Repucci & Amy Slipowitz, *Democracy Under Lockdown*, FREEDOM HOUSE 11 (2020), https://freedomhouse.org/report/special-report/2020/democracy-under-lockdown.

^{82.} HUM. RTS. WATCH, HUMAN RIGHTS DIMENSIONS OF COVID-19 RESPONSE (2020), https://www.hrw.org/news/2020/03/19/human-rights-dimensions-covid-19-response.

^{83.} Repucci & Slipowitz, supra note 81.

^{84.} See generally id. (discussing democracy and human rights issues implicated by COVID-19).

^{85.} International Covenant on Civil and Political Rights, supra note 24, art. 4.

^{86.} See id. (providing for possibility of derogating from certain Covenant obligations).

^{87.} See *id*. ("[T]he States Parties to the present Covenant may take measures derogating from their obligations under the present Covenant to the extent strictly required by the exigencies of the situation").

^{88.} Nicole K. Le et al., Impact of Government-Imposed Social Distancing Measures on COVID-19 Morbidity and Mortality Around the World, BULLETIN OF THE WORLD HEALTH ORGANIZATION [WHO] 2 (Apr. 30, 2020), https://www.who.int/bulletin/online_first/20-262659.pdf.

^{89.} See HUM. RTS. WATCH, supra note 82 (comparing and contrasting numerous countries' approaches to human rights considerations during COVID-19 lockdowns).

with the National Cabinet (the government of Australia) shutting down all types of businesses and venues and limiting gatherings to as few as two people.⁹⁰ As a result, Australia experienced a COVID-19 death rate nearly four times lower than the global average.⁹¹

Similarly, China implemented a series of large-scale interventions to control the virus.⁹² The various control measures enforced by China went beyond the requirements set forth by the IHR promulgated by the WHO.⁹³ China imposed complete lockdowns of populations, prohibited certain travel, and enacted self-isolation measures in Wuhan.⁹⁴ In setting new benchmarks for disease prevention, China pushed human rights derogations to their limits. Despite the human rights ramifications of these restrictions, scientific assessment of China's strict control measures indicated that the lockdown in Wuhan, combined with nationwide traffic restrictions and self-isolation measures, reduced the spread of COVID-19 across mainland China.⁹⁵ The relative success of China's strict interventions, laid against the backdrop of human rights obligations under international law, advances the notion that human rights may have to take a backseat to efforts by public health authorities to control disease transmission.⁹⁶

Despite the relative successes of Australia's and China's strict control measures, other countries' experiences suggest that strict lockdowns are not a one-size-fits-all solution. By contrast, countries like Brazil and India illustrate the difficulties of employing successful social distancing measures. The lack of success in containing the spread of COVID-19 in these countries challenges the idea that strict lockdowns are effective policy measures to address a pandemic. Specifically, the experiences of lower-income countries have tempered expectations about the effectiveness of strict lockdown policies and have posed new questions regarding what it means to have a well-targeted policy response.

By January 2021, Brazil recorded the second most deaths from COVID-19 in the world, due in large part to the economic and political disparities dominating the country.⁹⁷ About thirteen million people live in *favelas*, which are slums or shantytowns where "[p]hysical distancing and hygiene recommendations are

93. Zheming Yuan et al., *Modelling the Effects of Wuhan's Lockdown During COVID-19, China*, 98 BULLETIN OF THE WORLD HEALTH ORGANIZATION [WHO] 484, 491 (2020).

94. Id. at 484.

95. Id. at 491.

97. Eduardo Dantas, Brazilian Report on the Coronavirus Crisis: A Clash of Pandemics, 39 MED. & L. 153, 154 (2020).

^{90.} Beran, supra note 61, at 101.

^{91.} Matt Woodley, *How Does Australia Compare in the Global Fight Against COVID-19?*, RACGP (Sept. 8, 2020), https://www1.racgp.org.au/newsgp/clinical/how-does-australia-compare-in-the-global-fight-aga.

^{92.} See Yushen Sha, China's Practice of Fighting Novel Coronavirus Pneumonia, 39 MED. & L. 165, 166 (2020) ("Regarding the novel coronavirus pneumonia pandemic, the fastest spreading, widespread infection and the most difficult public health emergency in the past hundred years, China has persisted in taking the people as the center and adopted the most comprehensive, strictest and thorough preventive and control measures.").

^{96.} See id. (finding that lockdowns and movement restrictions contributed to pandemic containment).

near[ly] impossible to follow."⁹⁸ Lack of access to personal protective equipment and the Brazilian government's failure to enforce a coherent national strategy further contributed to the crisis, which resulted in a sharp depression of the country's currency.⁹⁹

Similarly, by January 2021, India recorded the second most confirmed cases and the third most confirmed deaths in the world.¹⁰⁰ In the beginning of the pandemic, however, India had been comparatively quick to implement strict social distancing policies.¹⁰¹ Prime Minister Narendra Modi implemented a nationwide curfew at the end of March 2020, when India only had 360 active cases.¹⁰² The Prime Minister also implemented the world's most expansive lockdown for twenty-one days, halting all travel from international and domestic flights to all forms of public transportation.¹⁰³ India also implemented other methods, such as the use of facemasks and police enforcement.¹⁰⁴ Despite these other efforts, India's infection rate continued to rise, which led the country to extend its strict lockdown measures.¹⁰⁵

Accounting for population size, India's figures sat well below the world average of 240.19 confirmed deaths per million people as of January 2021.¹⁰⁶ Thus, the effectiveness of India's strict national policies is open to debate. Although India's response to the pandemic was early and strict relative to other countries, the various challenges unique to India—including its large migrant population, overcrowded cities, poverty, and fragmented healthcare system—highlight the difficulties inherent in implementing an effective national response.¹⁰⁷ The toll the virus has taken on countries like Brazil and India, which lack the adequate infrastructure to deal with a pandemic,¹⁰⁸ highlights some of the shortcomings of international law and of its institutions' ability to help in these situations.

Compared to Brazil and India, the United States' more developed healthcare and medical delivery systems should have rendered it better equipped to respond to

104. Id. at 744.

105. See id. ("In the end, and despite the series of lockdowns, the number of active infections continued to increase with more than 410,461 cases and 15,413 deaths in mid-June.").

106. Coronavirus (COVID-19) Deaths, supra note 63 (India had 107.09 confirmed deaths per million people as of January 1, 2021).

^{98.} Id. at 155.

^{99.} See id. at 156 ("Since January [2020], the Real has fallen 32% against the American Dollar. Gross Domestic Product is expected to fall 7% or more this year, according to analysts.").

^{100.} Coronavirus (COVID-19) Deaths, supra note 63.

^{101.} Mrinalini Venkata-Subramani & Jesse Roman, *The Coronavirus Response in India – The World's Largest Lockdown*, 360 AM. J. MED. SCI. 742, 743 (2020).

^{102.} Id.

^{103.} Id. at 743-44.

^{107.} See Venkata-Subramani & Roman, supra note 101, at 747 ("Many countries around the globe, including the United States, share challenges that have delayed and continue to hamper progress against the pandemic including rampant misinformation, missteps in the implementation of early testing strategies, ineffective travel advisories, unfocused messaging, premature 'reopenings', and ineffective leadership remain challenges to overcome.").

the pandemic.¹⁰⁹ Yet, the United States accounted for more than 20% of the world's COVID-19 deaths despite encompassing only 4% of the world's population.¹¹⁰ Although many individual states implemented various social distancing and hygiene measures, the degree of these measures varied across the United States as a country.¹¹¹ In addition to those inconsistencies, state and federal governmental response measures gave rise to questions over American freedoms and liberties, leading to significant civil unrest, increasing movement of individuals, and compounding the problem of disease transmission.¹¹² Some factors that contributed to the United States' struggles to contain the virus include the prominence of human rights in American politics and society as well as the lack of a cohesive, nationwide approach to the COVID-19 pandemic.

In sum, data across the globe suggest that stricter lockdown measures correlate with a decline in the spread of COVID-19 across populations.¹¹³ At the same time, the stricter the governmental response to contain the spread of COVID-19, the greater the risk and extent of infringement upon human rights. This trade-off suggests that certain human rights may have to yield in the face of measures necessary to protect public health. Determining what rights can be derogated from, and how far countries may stray from the limits established by international law, will ultimately delineate the parameters of a successful pandemic response plan. Nevertheless, these measures are responsive in nature. Until vaccines are widely available throughout the world, curtailing the spread of a virus with containment policies is the best that the world can hope for. For now, the question that remains to be answered is how international human rights law can help states to better prepare for future public health crises while balancing human rights obligations, in order to prevent a disease from spreading to the level of a pandemic while avoiding as many human rights derogations as possible.

IV. HUMAN RIGHTS IMPACT ON PUBLIC HEALTH

Given the prevalence of lockdowns across nations around the world, this Part will analyze the efficacy of lockdown measures in containing COVID-19

^{109.} See generally 2019 Global Health Security Index, GLOB. HEALTH SEC. INDEX, https://www.ghsindex.org (Oct. 2019) (ranking preparedness of 195 countries following Ebola outbreak, with U.S. ranking high in five of six categories examined).

^{110.} Coronavirus (COVID-19) Deaths, supra note 63.

^{111.} See generally Rebecca L. Haffajee & Michelle M. Mello, *Thinking Globally, Acting Locally — The U.S. Response to COVID-19*, 382 NEW ENG. J. MED. e75(1) (2020) (explaining how United States' state-controlled response to COVID-19 has demonstrated need for centralized national strategy).

^{112.} See id. at e75(1)-e75(2) ("Usually, the fear is that officials will implement unduly coercive measures in response to public demands to act.").

^{113.} Wee Chian Koh et al., *Estimating the Impact of Physical Distancing Measures in Containing COVID-19*, 100 INT'L. J. INFECTIOUS DISEASES 42, 48–49 (2020); Le et. al., *supra* note 88, at 8; *see also* Marco Vinceti et al., *Lockdown Timing and Efficacy in Controlling COVID-19* Using Mobile Phone Tracking, 25 ECLINICALMED. 1, 1 (2020) (discussing lockdown success in Italy); Yuan et al., *supra* note 93, at 491 (discussing lockdown success in China); Woodley, *supra* note 91 (discussing lockdown success in Australia); Beran, *supra* note 61, at 99–103 (discussing lockdown success in Australia).

transmission in the context of their human rights impact. Lockdowns are quarantine measures implemented by governmental authorities during an emergency situation.¹¹⁴ In essence, lockdowns are stay-at-home orders that impose various restrictions on the freedom of movement.¹¹⁵ Typically, the degree of a lockdown will vary between partial and strict.¹¹⁶ Partial lockdowns are less stringent and may allow for a degree of flexibility for certain non-essential activities, whereas strict lockdowns impose restrictions on all non-essential activities.¹¹⁷ For purposes of this Part, both strict and partial lockdowns implemented on a national scale will be the focus of analysis.

The communicability of COVID-19, combined with states' responsibility to uphold an individual's right to move freely within its borders and between states, raises questions about the effectiveness and appropriateness of lockdown measures. To assess both their scope and adequacy, an evaluation of these policy measures should adhere to the principles of international human rights law and the standards outlined by the Siracusa Principles.¹¹⁸ Lawrence Gostin and Jonathan M. Mann's "Human Rights Impact Assessment" also provides a significant framework for evaluating the effects of a public health policy on human rights.¹¹⁹ Under this framework, Gostin and Mann outline a six-part assessment that allows policymakers to balance competing interests and develop effective public health policies that respect human rights.¹²⁰ Their assessment is based on a careful consideration of a policy's goals and means and of its burdens in relation to its intended benefits.¹²¹

The Siracusa Principles also bear a resemblance to the "harm principle," as first articulated by John Stuart Mill in his revolutionary 1859 work *On Liberty*.¹²² Mill writes, "[t]he only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others."¹²³ Under this reasoning, derogations of individual liberties and freedoms can be justified only if evidence demonstrates that constraining individual liberties would prevent or reduce widespread infections or injuries to the public.¹²⁴ Should the

118. See generally Siracusa Principles, supra note 34.

119. See generally LAWRENCE O. GOSTIN ET AL., AIDS PANDEMIC: COMPLACENCY, INJUSTICE, AND UNFULFILLED EXPECTATIONS (2004).

120. See id. at 68–78 for a discussion of the process underlining the human rights impact assessment.

121. Id.

122. See John Barugahare et al., Ethical and Human Rights Considerations in Public Health in Low and Middle-Income Countries: An Assessment Using the Case of Uganda's Responses to Covid-19 Pandemic, 21 BMC MED. ETHICS, 1, 6 (2020) (describing "harm principle" and how its reasoning mirrors that of the Siracusa Principles).

123. Id. at 6 (quoting JOHN STUART MILL, ON LIBERTY 26 (Andrews UK Limited ed., 2011)).

124. See id. ("When applied to the public health discourse, this principle is used to justify the implementation of autonomy-limiting public health measures, especially if there is evidence that unconstrained exercise of certain individual freedoms and liberties – such as movement,

^{114.} See Koh et al., supra note 113, at 43 (analyzing stringency of government lockdown policies).

^{115.} See id. at 45 (describing most and least stringent forms of lockdown orders).

^{116.} Id. at 48.

^{117.} Id.

evidence suggest that a derogation of liberty would further public health goals, such a derogation must adhere to the IHR's obligation for states to respect "the dignity, human rights, and fundamental freedoms of persons."¹²⁵ This adherence ensures a level of proportionality so that public health responses are commensurate with and restricted to the risks posed by COVID-19 and "avoid unnecessary interference with international traffic and trade."¹²⁶ In sum, consideration of the Siracusa Principles, IHR, and consultation with the above ethics and human rights recommendations identifies at least five ethical criteria for evaluating a public health policy and its impact on human rights.

These five criteria, although not exhaustive, will help guide this analysis. The first criterion will refer to the Siracusa Principles to consider the *necessity* of lockdown measures. The second criterion will measure a lockdown's *effectiveness* in achieving the intended public health goal. The third criterion will weigh the *proportionality* of the lockdown measure to the public health threat. The fourth criterion will determine the *reasonableness* of compliance with the lockdown measure. The last criterion will ask whether the policy is the *least restrictive* measure available to mitigate harm to individuals, in hope of identifying certain universal aspects of an effective lockdown that should foreground every nation's response policy.

A. Necessity

One must first ask whether lockdown measures are required to combat the spread of COVID-19. "Lockdowns" encompass a wide range of measures—self-isolation mandates, stay-at-home orders, and non-essential business closures, among others.¹²⁷ Given the varying degrees of lockdowns, determining whether they are "necessary" presents challenges.

The Siracusa Principles define a "necessary" limitation as one that "(a) [i]s based on one of the grounds justifying limitations recognized by the relevant article of the Covenant, (b) [r]esponds to a pressing public or social need, (c) [p]ursues a legitimate aim, and (d) [i]s proportionate to that aim."¹²⁸ For purposes of this subsection, only (a), (b), and (c) will be analyzed to determine the "necessity" of lockdown measures. The proportionality of a lockdown measure will be analyzed separately.¹²⁹

The most common purpose underlying a government's decision to order a lockdown measure is to reduce the number of people infected with the virus. For example, in issuing the "Guidelines for Opening Up America Again," the United States explicitly outlined a commitment "to limit and mitigate any rebounds or outbreaks" of COVID-19 cases.¹³⁰ Likewise, Australia's Emergency Response Plan

association, privacy, among others, will lead to widespread infections or injuries to the public."). 125. WORLD HEALTH ORG., *supra* note 49, at 10.

^{125.} WC 126. *Id*.

^{20. 10.}

^{127.} Koh et al., *supra* note 113, at 48.

^{128.} Siracusa Principles, supra note 34, at 3.

^{129.} See infra Section IV.C for a discussion of the proportionality of lockdown measures.

^{130.} CTRS. FOR DISEASE CONTROL & PREVENTION, GUIDELINES: OPENING UP AMERICA

was based on the strategic objective of minimizing the "transmissibility, morbidity and mortality" of the virus.¹³¹ Under Article 12 of the ICCPR, the right to liberty of movement may be subject to restrictions necessary to protect "public health or morals or the rights and freedoms of others¹³² Therefore, when one considers Article 12, the institution of lockdowns in response to the threat of COVID-19 transmission can be justified on the grounds of protecting public health.¹³³

With the WHO's declaration of COVID-19 as a pandemic,¹³⁴ the public's need for an immediate response became even more pressing. In turn, many countries implemented lockdown measures in response to the COVID-19 pandemic in an effort to address the "pressing public need" to contain the spread of a virus so deadly that it claimed more than one million lives by November 2020.¹³⁵ As of November 13, 2020, more than eight months after the WHO's declaration of COVID-19 as a pandemic, the United States alone had 464.25 daily new confirmed COVID-19 cases per million people, the third highest in the world.¹³⁶ The United Kingdom and Italy sat above the United States, with 493.03 and 626.12 confirmed new cases per million people, respectively.¹³⁷ These transmission rates highlight the pressing threat that COVID-19 posed, and continues to pose, to the world at large.

In addition, since the virus spreads mainly from airborne transmission when an infected person is in close contact with another person, it follows that limiting contact would slow the viral transmission.¹³⁸ According to the WHO, "aerosol transmission can occur in specific settings, particularly in indoor, crowded[,] and inadequately ventilated spaces, where infected person(s) spend long periods of time with others."¹³⁹ Given the prevalence of person-to-person contact in daily life, viral transmission is a constant risk.¹⁴⁰

134. See Tedros Ghebreyesus, Director-General, WHO, Statement on IHR Emergency Committee on Novel Coronavirus (Mar. 11, 2020) (transcript available at https://www.who.int/docs/default-source/coronaviruse/transcripts/who-audio-emergenciescoronavirus-press-conference-full-and-final-11mar2020.pdf) ("For these reasons, I am declaring a public health emergency of international concern over the global outbreak of novel coronavirus.").

135. Coronavirus (COVID-19) Deaths, supra note 63 (noting that COVID-19 claimed more than two million lives by January 2021).

AGAIN 3 (2020).

^{131.} AUSTL. GOV'T DEP'T OF HEALTH, AUSTRALIAN HEALTH SECTOR EMERGENCY RESPONSE PLAN FOR NOVEL CORONAVIRUS (COVID-19) 3 (2020).

^{132.} International Covenant on Civil and Political Rights, supra note 24, art. 12.

^{133.} *Id.*

^{136.} Id.

^{137.} Id.

^{138.} See How to Protect Yourself & Others, Ctr. for Disease Control and Prevention, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html#print (Aug. 13, 2021) (describing preventive measures to limit viral transmission).

^{139.} See Coronavirus Disease (COVID-19): How Is It Transmitted?, WORLD HEALTH ORG. (Dec. 13, 2020), https://www.who.int/news-room/q-a-detail/coronavirus-disease-covid-19-how-isit-transmitted (answering how COVID-19 is spread between people and when infected people can transmit the virus).

^{140.} *See id.* (discussing ways to reduce the risk of getting COVID-19 and to avoid person-toperson transmission).

To mitigate the risks posed by human contact, the use of face masks is a practice that many countries throughout Asia have adopted.¹⁴¹ Although wearing face masks is a less restrictive practice than lockdowns and has been effective in reducing viral transmission, when used alone this practice is not likely to significantly protect public health during a severe epidemic.¹⁴² A compartmental model assessing the community-wide impact of mask use by the general public demonstrated that mask mandates, as a sole intervention, would decrease the effective transmission rate of COVID-19.¹⁴³ The study qualified these results by stating, "[m]asks alone, unless they are highly effective and nearly universal, may have only a small effect (but still nontrivial, in terms of absolute lives saved) in more severe epidemics^{*144} In other words, although mask use has proven to be effective in altering the epidemiological outcomes of peak hospitalization and total deaths, mask mandates are better served as a *complement* to other public health control measures, like lockdowns.¹⁴⁵

The researchers from this study attributed this limitation in masks efficacy to its dependence on a number of variables that have proven to be too difficult to contain.¹⁴⁶ First, different types of masks vary in their effectiveness to protect other people from respiratory emissions and to reduce the wearer's exposure to viral particles.¹⁴⁷ N95 masks—the most effective face mask publicly available—are 95% effective in blocking small and large particles.¹⁴⁸ However, N95 masks are single-use, which makes supplying these masks to the general public impractical and infeasible, especially given the need for their use by healthcare workers taking part in high-risk, aerosol-generating procedures.¹⁴⁹ Consequently, most of the general public have had to rely on reusable cloth masks or non-medical masks, which vary from 20% to 80% effective.¹⁵⁰

More importantly, enforcing the use of masks to a degree that could sufficiently contain the viral transmission is highly unlikely. The high number of complaints to Occupational Safety and Health Administration (OSHA) in April 2020 illustrates just how difficult a mask mandate is to enforce.¹⁵¹ Although a universal mask

145. Id. at 303-04.

146. Id.

147. Keri Enriquez, *The Face Mask That Could End the Pandemic*, CNN HEALTH (Jan. 23, 2021), https://www.cnn.com/2021/01/22/health/face-mask-n95-coronavirus-transmission/index.html.

148. Id.

149. Id.

150. Id.; see Eikenberry, supra note 141, at 297–98 (describing estimated efficiency of different mask types).

151. See Peter Whoriskey et al., Thousands of OSHA Complaints Filed Against Companies for Virus Workplace Safety Concerns, Records Show, WASH. POST (Apr. 16, 2020), https://www.washingtonpost.com/business/2020/04/16/osha-coronavirus-complaints/ ("The

^{141.} Steffen E. Eikenberry et al., *To Mask or Not to Mask: Modeling the Potential for Face Mask Use by the General Public to Curtail the COVID-19 Pandemic*, 5 INFECTIOUS DISEASE MODELLING 293, 294 (2020).

^{142.} Id. at 303.

^{143.} Id.

^{144.} Id.

mandate, with a 100% compliance rate and a ready supply of N95 masks, could arguably combat the pandemic in an effective manner without infringing any recognizable human right, the current realities of the world indicate that such a mandate is impossible to effectuate.¹⁵² Therefore, mask mandates and other public health control measures should be viewed as complements to lockdown measures, so that when taken together, they can "drive nonlinear decreases in epidemic mortality and healthcare system burden."¹⁵³

Without some form of a lockdown limiting the high degrees of interpersonal contact, viral transmission cannot and will not be stopped.¹⁵⁴ At the very least, if a government's aim is to protect the public from disease transmission—an obviously pressing need—then limiting human contact must be pursued through some form of a lockdown. Lockdown measures, in their most basic form (i.e., social distancing), are necessary to limit the transmission of COVID-19. However, determining which lockdown measures should and should not be implemented remains an unanswered question.

B. Effectiveness

In order for an adopted measure to be considered effective, the adopted measure must possess the potential to contain the spread of COVID-19. Although no two countries' lockdown measures are the same, empirical evidence demonstrates that lockdown policies—including partial and complete lockdown measures—have had a positive impact on containing the pandemic's spread.¹⁵⁵ Specifically, states that have implemented lockdown policies have seen a reduction in their number of COVID-19 cases.¹⁵⁶ From a study involving 202 different countries, data suggest that lockdown measures have a negative and statistically significant coefficient.¹⁵⁷ This study indicates that countries that implement lockdown procedures should have fewer new cases than countries that do not implement them.¹⁵⁸

In theory, lockdowns should be effective. Numerous studies have confirmed

records show worker concerns about shortages of masks and gloves, of being forced to work with people who appear sick, and of operating in cramped work areas that prevent them from standing six feet from one another.").

^{152.} See *id.* ("Some stores let customers in without masks, others do not; some places offer employees masks, other[s] have forbidden employees to wear them, either because that might scare customers or because they are in short supply.").

^{153.} Eikenberry, supra note 141, at 303.

^{154.} See Forrest W. Crawford et al., Impact of Close Interpersonal Contact on COVID-19 Incidence: Evidence from One Year of Mobile Data, MEDRXIV 1, 1 (Mar. 12, 2021), https://www.medrxiv.org/content/10.1101/2021.03.10.21253282v1 ("Close contact between people is the primary route for transmission of SARS-CoV-2, the virus that causes coronavirus disease 2019 (COVID-19).").

^{155.} See Koh et al., *supra* note 113, at 48 ("We found that lockdown-type measures had the largest effect on limiting viral transmission, followed by complete travel bans.").

^{156.} Vincenzo Alfano & Salvatore Ercolano, *The Efficacy of Lockdown Against COVID-19:* A Cross-Country Panel Analysis, 18 APPLIED HEALTH ECON. & HEALTH POL'Y 509, 511 (2020).

^{157.} See id. ("Lockdown has a negative and statistically significant coefficient, suggesting that countries that implemented the lockdown have fewer [new cases] than countries that did not.").

^{158.} Id.

that irrespective of the degree of lockdown, lockdowns have generally limited the spread of COVID-19.¹⁵⁹ A study analyzing the spread of COVID-19 in Sweden the only European country that did not impose a lockdown—determined that a lockdown of 8.5 weeks would have reduced the number of infections in Sweden by 14,000 and the number of deaths by 1,200.¹⁶⁰ Another study, analyzing the effects of different physical distancing measures in controlling viral transmission, found that all forms of lockdown-type measures have been effective in reducing "the expected number of secondary cases generated by a primary case" at a certain time.¹⁶¹ Put more simply, all forms of lockdown measures showed a capacity to significantly limit the spread of COVID-19. Therefore, broadly speaking, lockdown measures that possess a component of physical distancing have demonstrated the capability to contain viral transmission.

However, when analyzing the effects of different degrees of lockdowns, the results are mixed. An analysis of historical time series data of the two Chinese provinces with the highest case numbers of COVID-19, Hubei and Guangdong, showed that strict lockdown measures were an effective way to slow the progression of viral transmission.¹⁶² A similar study analyzing Italy's lockdown strategy, which gradually increased in space, time, and intensity, showed that a tighter lockdown decreased mobility enough to bring viral transmission down, whereas "[a] less rigid lockdown led to an insufficient decrease in mobility to reverse an outbreak such as COVID-19."¹⁶³

Furthermore, an analysis of twenty-eight different countries, sixteen of which implemented a complete lockdown while twelve opted for a partial lockdown, showed that the number of weekly reported cases was higher among countries that instituted the partial lockdowns.¹⁶⁴ Despite these findings, a separate empirical analysis of three grades of lockdown measures—work from home and stay-at-home recommendations, partial lockdowns, and complete lockdowns—showed that no one measure was more effective than the other.¹⁶⁵ This finding may suggest that during the start of an outbreak, complete measures may not be required to control viral transmission, given the availability and relative effectiveness of less restrictive measures.

Notwithstanding these confounding results, researchers analyzing different

163. Vinceti et al., *supra* note 113, at 1.

^{159.} E.g., id.

^{160.} Benjamin Born et al., *The Effectiveness of Lockdowns: Learning from the Swedish Experience*, VOXEU (July 31, 2020), https://voxeu.org/article/effectiveness-lockdowns-learning-swedish-experience.

^{161.} Koh et al., *supra* note 113, at 48.

^{162.} Alexandre Medeiros de Figueiredo et al., *Impact of Lockdown on COVID-19 Incidence and Mortality in China: An Interrupted Time Series Study*, BULLETIN OF THE WORLD HEALTH ORGANIZATION [WHO] (Apr. 6, 2020), https://www.who.int/bulletin/online_first/20-256701.pdf.

^{164.} Jehan Al Humaid et al., *COVID-19: Impact of Early Decision and Type of Lockdown* over the Spread of the Virus RSCH. SQUARE 1, 4 (May 22, 2020), https://assets.researchsquare.com/files/rs-26573/v1/b52b7d3c-0e62-409e-af40-fe5ffedf7b40.pdf?c=1631841348.

^{165.} Koh et al., *supra* note 113, at 48.

[36.1

types of lockdowns were able to isolate certain factors that had a critical impact on the success of any given lockdown.¹⁶⁶ In the empirical analysis of the three grades of lockdown-type measures discussed above, the researchers found that lockdown measures must be implemented early in order to be effective.¹⁶⁷ Likewise, the study that analyzed lockdowns in twenty-eight different countries found that the number of days that a lockdown remains in place and the number of cases at the time a lockdown is initiated have a critical impact on the spread of the disease.¹⁶⁸ Specifically, the timing of a lockdown has demonstrated a strong, positive association to slowing transmission.¹⁶⁹ Different moments of implementation (of lockdown measures) correlated with differences in the capacity to contain the number of cases.¹⁷⁰ As one study stated, "every day matters to save lives using this containment strategy [i.e., lockdowns]."¹⁷¹

Looking collectively at the results of these studies, the efficacy of a lockdown policy seems to turn on both a government's *ability* to detect the presence of infection and the *speed* at which it implemented the lockdown response.¹⁷² In both Switzerland and Germany, earlier instituted lockdowns were found to be more effective than later instituted ones.¹⁷³ Specifically, cumulative hospitalization and death rates measured relative to the region-specific start date of the epidemic were greater in areas with a more significant spread of COVID-19 when the measures came into force.¹⁷⁴ Irrespective of a lockdown's stringency, the timing of a government's lockdown policy had a noticeable impact on the incidence of COVID-19 cases.¹⁷⁵ Moving forward, acknowledging these variables will be important in understanding what constitutes an effective lockdown policy.¹⁷⁶

C. Proportionality

A lockdown measure must be well-targeted and must adequately guard against under- and over-inclusiveness.¹⁷⁷ The U.N. recognized that countries must adopt

171. Angelo Silverio et al., *Timing of National Lockdown and Mortality in COVID-19: The Italian Experience*, 100 INT'L. J. INFECTIOUS DISEASES 193, 195 (2020).

172. Id. (citing A. Wilder-Smith & D.O. Freedman, Isolation, Quarantine, Social Distancing and Community Containment: Pivotal Role for Old-Style Public Health Measures in the Novel Coronavirus (2019-nCoV) Outbreak, J. TRAVEL MED. 1, 2 (2020)).

173. Martin Huber & Henrika Langen, *Timing Matters: The Impact of Response Measures on COVID-19-Related Hospitalizations and Death Rates in Germany and Switzerland*, 156 SWISS J. ECON. & STAT. 1, 11 (2020).

174. *Id*.

^{166.} *See id.* (identifying timing as a relevant factor); *see also* Humaid, *supra* note 164, at 6–7 (discussing same).

^{167.} Koh et al., *supra* note 113, at 48.

^{168.} Humaid, supra note 164, at 7.

^{169.} Id.

^{170.} Figueiredo, supra note 162, at 2.

^{176.} See Koh et al., *supra* note 113, at 48 (studying various factors on lockdown efficacy); *see also* Humaid, *supra* note 164, at 7 (analyzing early decision and lockdown type as variables).

^{177.} See Zackary D. Berger et al., COVID-19: Control Measures Must Be Equitable and Inclusive, 368 BMJ 1, 1 (Mar. 20, 2020),

"extraordinary measures" to preserve life during the COVID-19 pandemic.¹⁷⁸ Nonetheless, the U.N. also stressed the importance of observing the pandemic through a human rights lens so as to avoid intensifying the vulnerability of the least protected populations within a state.¹⁷⁹ Hence, lockdown measures, when applied uniformly throughout a nation, disproportionately impact certain groups over others.¹⁸⁰ Women, children, older persons, refugees, migrants, impoverished people, minorities, and people with disabilities are among the groups most susceptible to human rights abuses during a lockdown.¹⁸¹

The COVID-19 crisis has already uncovered a number of impacts on these vulnerable people and populations.¹⁸² Namely, unprecedented increases in unemployment and food insecurity have had disproportionate effects on the poor.¹⁸³ The education of more than one billion children has been disrupted by widespread school closures.¹⁸⁴ For the 1.8 billion people worldwide who are homeless or have inadequate housing, physical distancing is impractical, which makes viral transmission all the more likely.¹⁸⁵ More than 2.2 billion people around the world lack adequate access to water, which makes adherence to basic hygiene standards impossible.¹⁸⁶ Statistics demonstrate that older persons are more susceptible to infection and mortality and, thus, are more vulnerable to COVID-19.¹⁸⁷

For refugees and migrants around the world, hardship is extensive.¹⁸⁸ Around 167 countries have closed their borders, with at least 57 of those states making no exceptions for people seeking asylum.¹⁸⁹ As a result, refugees and migrants living in overcrowded conditions may be effectively excluded from social protection measures.¹⁹⁰ For example, many undocumented migrants opt not to seek healthcare for fear of being detained or deported when they do.¹⁹¹ Furthermore, those with disabilities face numerous difficulties that impede their ability to protect themselves.¹⁹² People with disabilities who live on their own but depend on outside

https://www.bmj.com/content/bmj/368/bmj.m1141.full.pdf ("Containment, mitigation, and suppression plans must be as inclusive as possible or risk undermining response efforts.").

^{178.} U.N. Secretary General, COVID-19 and Human Rights: We Are All in This Together 1, 2 (Apr. 2020,), https://www.un.org/sites/un2.un.org/files/un_policy_brief_on_human_rights_and_covid_23_april 2020.pdf.

^{179.} See id. at 7-8 (analyzing the pandemic through a human rights lens).

^{180.} See id. at 8 ("Many of the people most severely impacted by the [COVID-19] crisis are those who already face enormous challenges in a daily struggle to survive.").

^{181.} Id. at 11–12.
182. Id. at 10–11.
183. Id. at 8.
184. Id.
185. Id. at 7–8.
186. Id. at 7.
187. Id. at 11.
188. Id.
189. Id.
190. Id.
191. Id.
192. Id. at 12.

support no longer have the continuity of support they need because of the pandemic.¹⁹³ These are just a few of the human rights ramifications of lockdown policies that have been imposed throughout the world.

As demonstrated, lockdown policies deprive many people of health services and their livelihoods.¹⁹⁴ Those people hovering either at or below the poverty line bear the brunt of a lockdown's economic costs.¹⁹⁵ Although it is difficult to accurately assess the pandemic's indirect consequences, such as "lockdown victims" or "cases of non-COVID-19 excess mortality," organizations have estimated to some degree the number of persons more heavily burdened by a lockdown.¹⁹⁶ Some of these indirect effects include an increase in suicides caused by social isolation and a greater risk of infection for uneducated adults in working class jobs.¹⁹⁷ Additionally, an increased incidence of domestic violence has emerged as a growing "shadow pandemic."¹⁹⁸ Notably, there is a strong relationship between a decrease in the mobility of a population and indicators of domestic violence.¹⁹⁹

Lockdowns have also led to wage and employment loss, which disproportionately affects individuals in the informal economy of "enterprises, jobs, and workers [that] are not protected by the state."²⁰⁰ The increased vulnerability of the informal economy reveals that lockdown measures, although not facially discriminatory, have inequitable effects when applied stringently.²⁰¹ Hence, when a government decides to implement a lockdown policy, it is imperative that it identify vulnerable populations and find ways to minimize the harms these groups will face as a result of the lockdown. Implementing income support policies is one way of offsetting the harm a lockdown may have on more vulnerable populations.²⁰² Although it is difficult to quantify the direct and indirect effects of lockdown measures, these effects are important considerations when weighing the costs associated with COVID-19 and with the measures enacted in response to it.²⁰³

^{193.} Id.

^{194.} Alexander Broadbent et al., Lockdown Is Not Egalitarian: The Costs Fall on the Global Poor, 396 LANCET 21, 21 (2020).

^{195.} Id.

^{196.} Damian Walker et al., *More Harm Than Good? The Net Impact of COVID-19 Policies Is What Matters for Health*, CTR. GLOB. DEV. (May 15, 2020), https://www.cgdev.org/blog/more-harm-good-net-impact-covid-19-policies-what-matters-health.

^{197.} Meeri Kim, *The Impact of COVID-19 on Vulnerable Populations*, LINDAU NOBEL LAUREATE MEETINGS (Jan. 1, 2020), https://www.lindau-nobel.org/blog-the-impact-of-covid-19-on-vulnerable-populations.

^{198.} Devika Bhatia & Laura Clark Murray, *Demo Day Insights: How COVID-19 Pandemic Policies Affected the Vulnerable Populations*, OMDENA (June 11, 2020), https://omdena.com/blog/pandemic-policy/.

^{199.} Id.

^{200.} Id.

^{201.} Id.

^{202.} Id.

^{203.} Francesco Grigoli & Damiano Sandri, *COVID's Impact in Real Time: Finding Balance Amid the Crisis*, IMF BLOG (Oct. 8, 2020), https://blogs.imf.org/2020/10/08/covids-impact-in-real-time-finding-balance-amid-the-crisis/.

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D. Reasonableness

When considering the reasonableness of a lockdown measure, countries must balance the economic, social, and psychological costs of imposing lockdowns on the public at large against the need for a lockdown to promote public health. In theory, lockdowns disrupt both the supply of and demand for goods and services in an interconnected global economy.²⁰⁴ Business closures and social distancing measures that come as a result of lockdowns cause supply chain disruptions.²⁰⁵ Those business closures lead to layoffs and the consequent loss of income by workers who thereby lose their jobs.²⁰⁶ In turn, demand falls as a result of a reduction in household consumption and private business investment.²⁰⁷ These economic consequences directly impact social and psychological phenomena within society.²⁰⁸ Accordingly, a lockdown impacts not only the spread of the virus but also the society, the economy, and the livelihoods of affected individuals.²⁰⁹

Both advanced and developing countries throughout the world have imposed lockdowns.²¹⁰ However, developed and developing countries have many differences that have impacted the effectiveness of their COVID-19 response policies.²¹¹ First, developing countries have substantially weaker healthcare systems than their more advanced counterparts.²¹² Second, the limited fiscal capacity in developing countries impedes their governments' ability to institute large-scale income replacement programs to subsidize the effects of a long lockdown on unemployed and furloughed workers.²¹³ Third, given that "71% of workers in developing countries are self-employed compared to 13% in advanced economies," this larger informal economy compounds the problem of compliance with a lockdown and thus limits its effectiveness in developing countries.²¹⁴ A country's economic and political stability also factor into its lockdown readiness.²¹⁵

Given these various factors, the costs to a country's economy imposed by such

209. See Pandey et al., supra note 208 (describing effects of pandemic beyond spread of disease); Singh et al., supra note 208 (illustrating same).

- 214. *Id.*
- 215. Id.

^{204.} Chudik et al., supra note 63.

^{205.} Id.

^{206.} Id.

^{207.} Id.

^{208.} See Deeksha Pandey et al., Psychological Impact of Mass Quarantine on Population During Pandemics—The COVID-19 Lock-Down (COLD) Study, 15 PLOS ONE, Oct. 22, 2020, at 1, 6–7 (demonstrating that COVID-19 pandemic has led to another pandemic—one of depression, anxiety, and stress); Schweta Singh et al., Impact of COVID-19 and Lockdown on Mental Health of Children and Adolescents: A Narrative Review with Recommendations, 293 PSYCHIATRY RSCH., Aug. 24, 2020, at 1, 8–9 (highlighting debilitating effects of COVID-19 on children's educational, psychological, and developmental attainment).

^{210.} Titan Alon et al., *Lockdowns in Developing Countries Should Focus on Shielding the Elderly*, VOXEU (June 26, 2020), https://voxeu.org/article/lockdowns-developing-countries-should-focus-shielding-elderly.

^{211.} Id.

^{212.} Id.

^{213.} Id.

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lockdowns affect each country differently.²¹⁶ Lockdowns in low- and middle-income countries have the most harmful economic impacts on vulnerable and marginalized populations, such as informal workers or wage laborers whose incomes end at the start of the lockdowns.²¹⁷ On the other hand, wealthier countries with bigger social and economic safety nets, such as furloughs and economic stimulus payments, are often better equipped to deal with the economic repercussions that come from imposing a lockdown.²¹⁸ Income support policies implemented during lockdowns have exhibited success in reducing the shock to unemployment rates.²¹⁹

Countries implementing lockdowns assume that people can meet their basic needs within their own homes.²²⁰ Yet, each country has distinct conditions and complications that raise questions regarding the feasibility of imposing a successful lockdown. Although lockdowns have demonstrated a positive effect with respect to combatting disease and breaking the cycle of transmission, many low-income households face undue hardships, such as hunger and starvation, that make adhering to lockdown policies untenable.²²¹

Specifically, in countries like India, a national lockdown threatens the lives of the poor, who not only face a deprivation of income but also live in dense habitations that make hygiene and physical distancing guidelines difficult—if not impossible— to follow.²²² India already had a slow economic growth rate, high unemployment rates, and overall declining consumption expenditure before the onset of the COVID-19 pandemic.²²³ However, the Indian government's lockdown measures have compounded these problems and hindered the success of their containment policy.²²⁴ The situation in India exemplifies the issue that lockdown strategies in certain underdeveloped countries "may subvert the core principles of global health: that context matters and that social justice and equity are paramount."²²⁵ India's example shows that broad lockdown policies may not be realistic ways to contain

222. Lakshmi Lingam & Rahul Suresh Sapkal, COVID-19, Physical Distancing and Social Inequalities: Are We Really in This Together?, 2 INT'L. J. CMTY & SOC. DEV. 173, 174–75 (2020).

^{216.} Id.

^{217.} INT'L LABOUR ORG., ILO MONITOR: COVID-19 AND THE WORLD OF WORK 6 (2d ed. 2020), https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms 740877.pdf.

^{218.} Do Lockdowns Actually Work?, GAVI, THE VACCINE ALLIANCE (June 12, 2020), https://www.gavi.org/vaccineswork/do-lockdowns-actually-work.

^{219.} See Bhatia & Murray, supra note 198 (discussing the success of income support policies implemented alongside lockdown measures).

^{220.} Sam Jones et al., *Is Mozambique Prepared for a Lockdown During the COVID-19 Pandemic?*, UNU–WIDER (Apr. 2020), https://www.wider.unu.edu/publication/mozambique-prepared-lockdown-during-covid-19-pandemic.

^{221.} See, e.g., id. (discussing effects of lockdowns on Mozambique's low-income households).

^{223.} See *id.* at 174 ("However, a complete social and economic shutdown threatens to disproportionately jeopardise the lives of the poor who not only are deprived of earning an income but also live in dense habitations with poor access to water and sanitation, creating barriers to hand washing, maintaining hygiene and observing physical distance.").

^{224.} Id. at 175–76.

^{225.} Id. at 174.

the spread of COVID-19 in countries that are among the lowest in "lockdown readiness."²²⁶

Because all lockdowns contain an element of voluntary social distancing, in order to adequately adhere to a lockdown policy, countries need to have the necessary physical infrastructure in place to enable people to stay indoors and maintain a safe physical distance for a lockdown to be effective.²²⁷ Accordingly, countries need to pinpoint the specific deficits that impede their ability to implement a lockdown successfully in order to determine the overall effectiveness of the potential lockdown measure.

E. Least Restrictive

To determine the least restrictive route to control the spread of COVID-19, different degrees of lockdown measures will be considered in regard to their effectiveness at containment and their burdens on individuals and society at large. As studies have shown, lockdown measures have an ability to limit viral transmission by reducing individuals' movement.²²⁸ However, these measures also have substantial economic and social effects.²²⁹ Weighing the benefits of a lockdown against its costs leaves policymakers in a difficult situation of determining the best trade-offs.²³⁰

Lockdowns directly infringe upon an individual's right to move freely.²³¹ Even more so, the effects stemming from this restriction of human rights are compounded in low-income countries and among vulnerable populations.²³² When implementing a lockdown, determining the appropriate degree and duration of that measure is vital to minimize the negative impacts on the physical, mental, and economic well-being of the population.²³³ Therefore, governments should only implement lockdown measures if they can avoid "severely hinder[ing] economic activity, without significantly increasing the incidence of the virus and putting a strain on their health systems."²³⁴

Since the start of the COVID-19 pandemic, governments throughout the world

^{226.} See id. at 186–87 (discussing India's general lack of ability to effectively carry out social distancing required in lockdowns).

^{227.} See id. ("We find that the majority of Indian states are least prepared for the COVID-19 pandemic from a public health perspective of having all the necessary physical infrastructure in place which enables people to stay indoors and also maintain physical distancing safely if outdoors.").

^{228.} See, e.g., Koh et al., *supra* note 113, at 48 (discussing timing of restrictions on international travel, mass gatherings, and lockdowns and their effects on reduced transmission rates).

^{229.} See Anum Anis, A Policy Trade-Off? The Impacts of Stringent COVID-19 Lockdowns, IGC (Oct. 8, 2020), https://www.theigc.org/blog/a-policy-trade-off-the-impacts-of-stringent-covid-19-lockdowns/ (comparing moderate and stringent lockdown measures' effects on economies and saving lives).

^{230.} HUM. RTS. WATCH, supra note 82.

^{232.} See id. (explaining why certain countries may not be ready to lockdown).

^{233.} Id.

^{234.} Anis, supra note 229.

have imposed partial and strict lockdowns, a number of which have brought significant parts of that country's economy to a halt.²³⁵ On the one hand, lockdowns mitigate the risk of viral transmission and death from the disease.²³⁶ But on the other hand, lockdowns create situations of economic recession, "which lower[] compliance with the lockdown and may imply that poorer parts of the population suffer from deprivation and are no longer able to subsist."²³⁷ With these factors in mind, this Section seeks to understand the optimal trade-off between lives and livelihoods when it comes to lockdown measures.

Poorer households have experienced disproportionate death rates from COVID-19 because of the relative difficulty they face in adhering to recommended social distancing policies to avoid contracting the disease and their relative inability to obtain necessary healthcare when they do contract the virus.²³⁸ Similarly, low-income countries have experienced a much greater death burden and loss of welfare due to the pandemic.²³⁹

In turn, the benefits of widespread restrictions on mobility varies from country to country.²⁴⁰ Studies have found that the value of lockdowns is greatly tilted towards wealthier countries.²⁴¹ The marginal value of increasing the restrictiveness of a lockdown policy "is relatively small in low-income countries."²⁴² These effects can be explained by the fact that the fatality risk of COVID-19 increases with a rise in age.²⁴³ A 60-year-old person has a "predicted case fatality ratio from COVID-19 . . . 30 times greater than that of a 30-year-old" person, and the same ratio is 60 times greater for a 70-year-old person.²⁴⁴

Notably, high-income countries tend to have older populations compared to low-income countries.²⁴⁵ To illustrate, the percent of the population above the age of sixty-five in Italy and in the United States is 22.8% and 15.8%, respectively.²⁴⁶ In Bangladesh, "only 5.2% of the population is above the age of 65."²⁴⁷ Hence, the

- 245. Id.
- 246. Id.
- 247. Id.

^{235.} Ricardo Hausmann & Ulrich Schetter, *Horrible Trade-offs in a Pandemic: Lockdowns, Transfers, Fiscal Space, and Compliance* 1 (Ctr. Int'l Dev. Harv. U., Working Paper No. 382, 2020), https://www.hks.harvard.edu/sites/default/files/centers/cid/files/publications/faculty-working-papers/2020-06-cid-wp-382-pandemic-trade-offs.pdf.

^{236.} Id. at 2.

^{237.} Id.

^{238.} *See* Lingam & Sapkal, *supra* note 222, at 186-87 (explaining how poorer households in India are not well-positioned to social distance or effectively lockdown and are therefore at greater risk of death).

^{239.} Hausmann & Schetter, supra note 235, at 3.

^{241.} See, e.g., Zachary Barnett-Howell & Ahmed Mushfiq Mobarak, *The Value of Social Distancing Is Not Equally Distributed*, VOXEU (May 7, 2020), https://voxeu.org/article/value-social-distancing-not-equally-distributed (discussing disparate effects of lockdowns on countries with younger populations and higher ratios of workforce self-employed or in the informal sector).

^{242.} Id.

^{243.} Id.

^{244.} Id.

incentives for increasing lockdown policies' restrictiveness are higher in highincome countries than in low-income countries because there are more people at greater risk of fatality from COVID-19 in high-income countries.²⁴⁸ Further, the capacity for low-income countries to allocate the effects of a lockdown on vulnerable people across their entire populations is significantly smaller than that of highincome countries.²⁴⁹

There are numerous differences between high- and low-income countries that suggest a lockdown's degree is the determining factor of a response plan's success. First, healthcare systems' capacities differ between countries.²⁵⁰ A country's ability to accommodate infected individuals is not sufficiently high in low-income countries.²⁵¹ Second, lockdowns, especially in low-income countries, impose a trade-off: they lower the mortality risk from COVID-19 but also increase economic deprivation.²⁵² However, poorer people are often more unwilling to "make economic sacrifices to reduce their risks" of contracting the disease.²⁵³ This unwillingness arises because "people living closer to the margin, who require a daily wage to feed their families and make ends meet, are [more] willing to accept higher levels of risk for less consumption."²⁵⁴

Accounting for country-specific valuation of risk further emphasizes the varied effects a lockdown's degree has on high- and low-income countries.²⁵⁵ Specifically, the shift from a scenario where COVID-19 is unmitigated to a lockdown policy that reduces interpersonal contact rates by approximately half provides countries like the United States and Germany with an estimated benefit of 59% and 85% of their gross domestic product (GDP), respectively.²⁵⁶ By contrast, the marginal value of the same policy in Bangladesh and India is only 14% and 19% of their GDP, respectively.²⁵⁷ Thus, the benefits of a strict lockdown are not equal for everyone.

Lastly, a government's ability to provide welfare payments to its citizens depends on the country's workforce structure—government welfare schemes are generally applicable only to the percentage of the workforce that is a part of the formal sector.²⁵⁸ Therefore, imposing a strict lockdown policy on low-income countries, where most workers are self-employed or in the informal sector, may not have the same intended benefits as in wealthier countries, where most workers are

- 255. Id.
- 256. Id.
- 257. Id.
- 258. Id.

^{248.} Id.

^{249.} Id.

^{250.} *Id.*; *see also* Hausmann & Schetter, *supra* note 235, at 1 ("Yet, these shocks need to be absorbed at the individual and at the country level, and some countries may be less able to do so than others.").

^{251.} See Barnett-Howell & Mobarak, supra note 241 (finding that high-income countries have more than twice the medical per-capita capacity of low-income countries).

^{252.} Id.

^{253.} Id.

in the formal sector.²⁵⁹ These disparate effects suggest that lockdowns are not a blanket solution.

When determining which lockdown policies to pursue, it is imperative for governments to acknowledge their needs and capabilities and to identify which lockdown measures are most feasible and effective.²⁶⁰ Low-income countries have distinct needs and possess different capabilities than high-income countries.²⁶¹ Therefore, adopting stricter lockdown policies, like total lockdowns, is likely impractical for these states, considering their economic costs and the threat they pose to individual human rights.²⁶² While COVID-19 poses an ongoing risk of transmission and fatality, the social and economic costs of a strict lockdown will be greater in lower-income countries.²⁶³ Since lockdowns can decrease the incidence of disease transmission,²⁶⁴ every country should impose some degree of social distancing. But the lockdown's degree should vary based on a country's capabilities and on its social, political, and economic landscape. For example, as alluded to above, less restrictive lockdown measures may be more suitable for low-income countries because the effectiveness of a strict lockdown on a low-income country will not be great enough to overcome or to justify the disparate economic impact and the human rights burden imposed on those countries.²⁶⁵ However, although the strictness in lockdowns should be determined on a country-by-country basis, effective lockdown policies are marked by two universally important factors that should foreground every response policy.

1. Timing

The most important aspect of a government response policy is its timing.²⁶⁶ Each and every country that implements a lockdown must do so immediately. Analysis has shown that the effects of a lockdown are particularly strong if adopted early in a country's epidemic.²⁶⁷ Specifically, "countries that adopted lockdowns when COVID-19 cases were still low experienced much better epidemiological outcomes relative to countries that intervened when cases were already high."²⁶⁸ Additionally, this timing not only relates to when a country faces its first case of

^{259.} Id.

^{260.} See id. (describing how demographics, including economic status, impact the benefit and risks of lockdowns and other social distancing policies).

^{261.} See, e.g., Hausmann & Schetter, *supra* note 235, at 1 ("Similar measures may not be feasible in large parts of the developing world.").

^{262.} See supra Part IV for a discussion of the socioeconomic effects of lockdown policies.

^{263.} Hausmann & Schetter, supra note 235, at 1.

^{264.} *See, e.g.*, Koh et al., *supra* note 113, at 48–49 (finding that maintaining physical distance is effective in reducing transmission of the virus).

^{265.} *See, e.g.*, Hausmann & Schetter, *supra* note 235, at 33 ("Across countries, combating the pandemic is costlier for poorer countries, implying that these countries suffer from a higher death burden and a greater welfare loss.").

^{266.} See, e.g., Koh et al., supra note 113 at 48 (arguing that all lockdown measures—regardless of their stringency—must be implemented early to be effective).

^{267.} See, e.g., *id.* (determining that if implemented early, work from home and stay at home recommendations effectively reduce transmission of the virus).

^{268.} Grigoli & Sandri, supra note 203.

COVID-19, but also to when it experiences a spike in cases. The importance of timing is relevant not only to prevent a pandemic, but also to manage one.²⁶⁹ Therefore, while the degree of a lockdown can vary based on a country's needs and capabilities, early adoption and implementation of the lockdown policy should characterize every country's response.

2. Detection

The ability to detect the presence of infection is another fundamental component to an effective response policy.²⁷⁰ Extensive testing and contact tracing have proven to be a vital determinant in the degree and duration of an effective lockdown policy.²⁷¹ Although lockdown measures reduce the density of populations to a level that significantly limits viral transmission, the daily needs of individuals and society are too great to entirely prevent person-to-person contact from occurring.²⁷² However, without a wide-spread vaccine, such interaction puts people at significantly greater risk for contracting the virus.

Additionally, total lockdowns that continue indefinitely are neither economically nor socially sustainable in the long run.²⁷³ The longer a total lockdown lasts, the greater the toll it has on the population.²⁷⁴ This means that countries implementing a total lockdown must prepare for a responsible exit strategy.²⁷⁵ By implementing an expansive testing and contact tracing program, countries can better identify infected individuals and their close contacts.²⁷⁶ This allows public health officials to better understand how to contain viral transmission within their country and to design a well-targeted lockdown policy.²⁷⁷ Thus, testing and contact tracing

^{269.} See Gil Loewenthal et al., COVID-19 Pandemic-Related Lockdown: Response Time Is More Important Than Its Strictness, 12 EMBO MOLECULAR MED. 1, 5 (2020) (finding that countries that took early measures to limit population mixing had better control on viral-related mortality).

^{270.} Mirjam E. Kretzschmar et al., Impact of Delays on Effectiveness of Contact Tracing Strategies for COVID-19: A Modelling Study, 5 LANCET PUB. HEALTH 452, 458 (2020).

^{271.} See *id.* ("Overall, our findings suggest that an optimised contact tracing strategy, with short delays and high coverage for testing and tracing, could substantially reduce the reproduction number, which would allow alleviation of more stringent control measures.").

^{272.} Melissa De Witte, Work and a Desire to Exercise, Socialize Are Why People Didn't Social Distance, Stanford Researchers Find, STAN. NEWS (Apr. 14, 2020), https://news.stanford.edu/2020/04/14/people-didnt-social-distance/.

^{273.} See generally Antoine Mandel & Vipin Veetil, The Economic Cost of COVID Lockdowns: An Out-of-Equilibrium Analysis, 4 ECON. DISASTERS & CLIMATE CHANGE 431 (2020) (estimating economic cost of lockdown of some sectors of world economy).

^{274.} See Eskild Petersen et al., COVID-19–We Urgently Need to Start Developing an Exit Strategy, 96 INT'L J. INFECTIOUS DISEASES 233, 239 (2020) (finding that prolonged national lockdowns result in increased bankruptcy and unemployment).

^{275.} See id. ("Each country has to decide how to open up its society for work and social activities.").

^{276.} See Kretzschmar, supra note 270 (determining that a contact tracing strategy's effectiveness is improved when there are short delays and high coverage for testing and tracing).

^{277.} Contact Tracing for COVID-19, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/contact-tracing.html (last updated Feb. 25, 2021).

are essential to an effective lockdown strategy. Among the countries that have had the most success responding to COVID-19 are South Korea, Vietnam, and Taiwan.²⁷⁸ One of the common themes of each of their responses has been a commitment to a comprehensive testing and contact tracing program.²⁷⁹ As a result, these countries have successfully limited transmission of COVID-19 without imposing a total lockdown on their populations.²⁸⁰

South Korea has been among the leaders in testing rates around the world.²⁸¹ The expansiveness of South Korea's "test, trace, isolate" strategy has led to the implementation of less stringent national social distancing measures and appreciable control over viral transmission.²⁸² As of November 15, 2020, South Korea succeeded in flattening the infection curve by implementing a centralized contact tracing program that saw around 2.8 million COVID-19 tests conducted.²⁸³ This centralized approach has allowed national authorities "to collect and use information about all COVID-19 patients and their contacts for the purposes of infectious disease control."284 In turn, South Korea has been able to inhibit viral transmission by successfully testing and tracing patients through swift identification and prioritization of testing and by isolating high-risk individuals.²⁸⁵ Despite the relative density of South Korea's population—comparable to the geographical size of West Virginia with a population of fifty-one million—South Korea's total number of cases per population are among the lowest throughout the globe.²⁸⁶ The relative success of South Korea's response policy-without a total lockdown-demonstrates the importance of testing and contact tracing in a successful containment policy.

279. Id.

280. See, e.g., id. at 385 (finding that contact tracing approach worked well and allowed these countries to avoid broad lockdowns).

281. See Chad Terhune et al., Special Report: How Korea Trounced U.S. in Race to Test People for Coronavirus, REUTERS, (Mar. 18, 2020, 2:13 PM) https://www.reuters.com/article/us-health-coronavirus-testing-specialrep/special-report-how-korea-trounced-u-s-in-race-to-test-

people-for-coronavirus-idUSKBN2153BW ("By the end of February, South Korea was making headlines around the world for its drive-through centers and ability to test thousands of people daily.").

282. See Amy Dighe et al., Response to COVID-19 in South Korea and Implications for Lifting Stringent Interventions, 18 BMC MED. 1, 2 (2020) ("Despite a rapid growth of cases in the global timescale, South Korea has brought the transmission of the causative agent of COVID-19... under control with less stringent national social distancing policies relative to countries such as Italy, France, and the UK.").

283. Cumulative Number of Coronavirus (COVID-19) Tests Conducted in South Korea from February 1, 2020 to August 1, 2021, STATISTA, https://www.statista.com/statistics/1102818/south-korea-covid-19-test-total-number/ (Aug. 1, 2021).

284. Justin Fendos, Part I: COVID-19 Contract Tracing: Why South Korea's Success Is Hard to Replicate, GEO. J. INT'L AFFS. (Oct. 12, 2020) https://gjia.georgetown.edu/2020/10/12/parti-covid-19-contact-tracing-why-south-koreas-success-is-hard-to-replicate/.

285. Id.

286. See COVID-19 Tracker: South Korea, REUTERS, https://graphics.reuters.com/worldcoronavirus-tracker-and-maps/countries-and-territories/south-korea/ (last visited Feb. 27, 2021) (revealing that as of February 27, 2021, South Korea had 1,700 infections per million people and 30.6 deaths per million people).

^{278.} Dyani Lewis, *Where COVID Contact-Tracing Went Wrong*, 588 NATURE 384, 384 (2020).

Although the costs of testing and comprehensive contact tracing are immense, investing in such a program may remedy various burdens imposed by a pandemic and ease a government's lockdown approach.

A study evaluating the impact of social distancing, testing, and contact tracing showed that high testing and contact tracing rates may enable states to adopt a less restrictive lockdown policy without an increased rate of COVID-19 transmission.²⁸⁷ As the world saw, states that established the infrastructure to test, trace, and respond effectively to the COVID-19 pandemic have avoided the burdens of imposing a total lockdown.²⁸⁸ Since poorer states are not equipped with the resources required to maintain an extended total lockdown, increasing the capacity and scale of testing, case isolation, and contact tracing may allow those states to implement less stringent social distancing restrictions without experiencing a resurgence of COVID-19 cases.²⁸⁹ Therefore, the capacity of a country's testing and contact tracing program is a vital aspect in determining both the degree and effectiveness of a lockdown policy.

Lockdown measures are simple, yet effective, policy instruments that should be utilized during future pandemics.²⁹⁰ However, the needs of certain countries will dictate the degree and duration of each lockdown policy.²⁹¹ Understanding the importance of testing and contact tracing will help states confront future public health crises in a manner that best accounts for the needs and capabilities of each respective country. For states that must implement a total lockdown, having a comprehensive testing and contact tracing program will allow them to ease their restrictions in a manner that will facilitate a smoother transition and will not cause a spike in cases.²⁹² For states that may be incapable of or resistant to enduring a lengthy total lockdown, extensive testing and contact tracing will be essential to keeping infections low and to avoiding the social and economic costs of a strict

^{287.} Weihsueh A. Chiu et al., *State-level Needs for Social Distancing and Contact Tracing to Contain COVID-19 in the United States*, 4 NATURE HUM. BEHAV. 1080, 1085–87 (2020).

^{288.} See Jennifer Summers et al., Potential Lessons from the Taiwan and New Zealand Health Responses to the COVID-19 Pandemic, 4 LANCET REG'L HEALTH W. PAC. 1, 4 (2020) ("Furthermore, the effectiveness of Taiwan's public health response has meant that to date no lockdown has been implemented, placing Taiwan in a stronger economic position both during and post-COVID-19 compared with New Zealand, which had seven weeks of national lockdown (at Alert Levels 4 and 3).").

^{289.} See Jean B. Nachega et al., From Easing Lockdowns to Scaling Up Community-Based Coronavirus Disease 2019 Screening, Testing, and Contact Tracing in Africa—Shared Approaches, Innovations, and Challenges to Minimize Morbidity and Mortality, 72 CLINICAL INFECTIOUS DISEASES 327, 331 (2020) (arguing that resource-constrained countries like those in Africa must adopt an efficient community screening, testing, and contact tracing program to control COVID-19 pandemic).

^{290.} INT'L MONETARY FUND, WORLD ECONOMIC OUTLOOK: A LONG AND DIFFICULT ASCENT 76 (2020).

^{291.} See id. at 67 ("The decision to deploy lockdowns is indeed not random; rather, it may reflect time-invariant country characteristics that also affect economic outcomes.").

^{292.} See Summers, *supra* note 288, at 4 (stating that Taiwan's rapid and systematic implementation of testing and contact tracing, among others, was instrumental in limiting pandemic spread).

lockdown.²⁹³ Ultimately, the government's ability to detect the presence of infection and the rapidity with which it implements a lockdown will determine whether the lockdown policy is successful.

V. UPHOLDING INDIVIDUAL DIGNITY AND SECURING THE COMMON GOOD

Determining the appropriateness of a lockdown measure varies on a countryby-country basis.²⁹⁴ COVID-19 spreads from human-to-human contact and studies have confirmed the effectiveness of lockdown measures in combatting viral transmission.²⁹⁵ Nonetheless, given that lockdowns are blunt policy instruments, certain vulnerable populations will be disproportionately affected by lockdown measures, depending on the severity of those restrictions.²⁹⁶ In addition, each country differs in both its needs and capabilities. Countries that lack the necessary infrastructure to deal with the costs that a lockdown imposes on people, society, and the economy, may be unable to impose a strict lockdown.²⁹⁷ However, it is clear that every country should adopt some form of lockdown policy if it intends to combat the spread of future contagions like COVID-19.²⁹⁸

Since studies show that the effectiveness of complete and partial lockdowns varies, it follows that a lockdown's intensity should fluctuate based on the needs and capabilities of each country.²⁹⁹ More importantly, at the heart of every successful lockdown is the time of its implementation.³⁰⁰ Additionally, a country's ability to detect the virus's spread is critical in determining the success of its lockdown policy.³⁰¹ For countries that lack the infrastructure to assist vulnerable populations, a partial lockdown implemented early on may be the best approach to combat disease transmission, in light of the deficiencies that would cause a total lockdown to be unworkable.³⁰² For countries like the United States, which failed to slow the spread of the virus prior to the vaccines' development,³⁰³ an early implemented total

^{293.} See id. at 4–5 (describing the success of Taiwan's response to COVID-19 that included significant testing and contact tracing and no lockdowns).

^{294.} See International Covenant on Civil and Political Rights, supra note 24, art. 4 (providing for possibility of derogating from certain Covenant obligations).

^{295.} See, e.g., Koh et al., supra note 113, at 48 (finding that early implementations of lockdown and physical distancing measures are effective in containing COVID-19).

^{296.} See, e.g., Hausmann & Schetter, supra note 235, at 33 (determining that developing countries require urgent support in the COVID-19 crisis).

^{297.} Id.

^{298.} See Alfano & Ercolano, supra note 156, at 514 (concluding that lockdowns are generally effective in reducing the number of people infected by each infected person).

^{299.} Koh et al., *supra* note 113, at 48–49.

^{300.} *See, e.g.*, Loewenthal et al., *supra* note 269, at 3 (determining that delay in lockdown by 7.49 days can cause expected number of deaths to double).

^{301.} *See, e.g.*, Dighe et al., *supra* note 282 (finding that South Korea was able to contain the spread of COVID-19 using less stringent social distancing policies than other countries).

^{302.} See, e.g., Dantas, supra note 97, at 155 (outlining some of the factors that make a lockdown problematic in Brazil).

^{303.} See Coronavirus (COVID-19) Deaths, supra note 63 (showing that United States had 417,872 confirmed COVID-19 deaths as of January 21, 2021).

lockdown could arguably have shrunk the total number of cases and deaths.³⁰⁴

Although a total lockdown will burden some individuals more heavily than others, the right to life is an absolute right, which may justify such burdens.³⁰⁵ But, when implementing a lockdown of this strict degree, countries must pay special attention to the needs of vulnerable populations and provide adequate assistance to remedy the inequalities they face. Providing such assistance will help ensure the successful functioning of a government response plan.³⁰⁶ Moreover, recognizing the importance of a lockdown's timing and a government's capacity to effectively test and trace will allow countries to adopt the least restrictive response policy and to limit intensifying these inequities. Stricter lockdowns may exacerbate certain human rights violations and further marginalize vulnerable populations.³⁰⁷ The unequal burdens shared by low-income countries justify the need for governments to tailor their responses to the unique situations faced by their peoples, and to create responses that both uphold individual dignity and secure the common good.

VI. CONCLUSION

By integrating ethics and human rights considerations when determining the effectiveness of lockdown measures, this Comment has revealed that both considerations are critical to enacting a successful response policy. Specifically, the negative impacts and disparate burdens experienced by certain vulnerable populations are vital considerations and a necessary complement in designing a successful lockdown policy.³⁰⁸ The effect of a total lockdown varies and thus one should only be implemented when the government is capable of remedying the disparate effects of such a policy.³⁰⁹ This Comment has identified the various human rights implications of lockdown policies. In doing so, this Comment has argued that the various burdens and human rights implications may outweigh the intended benefits of a stricter lockdown policy in certain countries. The lessons learned from COVID-19 will be helpful in combatting future pandemics. Looking ahead, international law should provide uniform guidance that reflects the divergent needs of states. In conclusion, the importance of balancing concern for human rights with the need to implement safety measures to address a public health threat, such as COVID-19, is vital to a successful governmental response.

308. Id. at 10-12.

^{304.} See INT'L MONETARY FUND, supra note 290, at 67 ("For example, countries with higher social capital may not require stringent lockdowns—as people take greater precautions against infecting others—and could also better withstand the economic impact of the crisis.").

^{305.} See generally International Covenant on Civil and Political Rights, *supra* note 24 (defining basic rights, including the right to life; freedom from torture and cruel, inhuman, or degrading treatment; freedom from slavery; right to liberty; and right to respect for privacy and family).

^{306.} UNITED NATIONS, supra note 178, at 2.

^{307.} Id.

^{309.} *See* Hausmann & Schetter, *supra* note 235, at 33–34 ("In such cases, developing countries see themselves forced to fight less the pandemic in order to protect the poor.").