

# Securing Justice, Health, and Democracy against the COVID-19 Threat

March 20, 2020

Danielle Allen, PhD, PhD<sup>1</sup>

Lucas Stanczyk, PhD<sup>2</sup>

I. Glenn Cohen, JD<sup>3</sup>

Carmel Shachar, JD, MPH<sup>4</sup>

Rajiv Sethi, PhD<sup>5</sup>

Glen Weyl, PhD<sup>6</sup>

Rosa Brooks, JD, PhD<sup>7</sup>



---

<sup>1</sup> Department of Government and Edmond J. Safra Center for Ethics, Harvard University, Cambridge, MA

<sup>2</sup> Department of Philosophy, Harvard University, Cambridge, MA

<sup>3</sup> Harvard Law School and Petri-Flom Center for Law and Bioethics, Cambridge, MA

<sup>4</sup> Harvard Law School and Petri-Flom Center for Law and Bioethics, Cambridge, MA

<sup>5</sup> Department of Economics, Barnard College and Columbia University, New York, NY

<sup>6</sup> Microsoft Research

<sup>8</sup> Georgetown Law School, Washington, D.C.

## Introduction

---

# 01

# Introduction

---

Our federal government and all of our state governments are now fully engaged in fighting a national emergency of historic proportions.<sup>8</sup> The scale of the emergency is roughly equivalent to World War II and will therefore require equivalent commitment on the part of Americans. So much work needs to be done that we ought all to focus on ascertaining how we can contribute. This paper is an attempt

---

<sup>8</sup> The authors would like to thank Ezekiel Emanuel (Department of Medical Ethics and Health Policy, Perelman School of Medicine, University of Pennsylvania); Marc Lipsitch (Department of Epidemiology, Harvard School of Public Health); Lawrence Gostin (O'Neill Institute for National and Global Health Law, Georgetown University Law Center); and Arthur Applebaum (Harvard Kennedy School, Harvard University) for consultation; and Meira Levinson (Harvard Graduate School of Education, Harvard University.)

## Introduction

---

to sketch out a bird's eye view of how we might most effectively think of our shared goals. We recognize that decision-makers and leaders must make decisions appropriate to the specific conditions they immediately face; we hope nonetheless that this sketch is helpful as they seek to make difficult decisions.

In a time of a pandemic, the goals for national policy in a constitutional democracy might be easily understood by analogy to goals in the context of the onset of war via a short-notice attack. In that situation, the aim of the war is defensive and therefore just (Walzer 1977). While there are very important dis-analogies with the context of a just war (in particular with respect to the permission to use deadly force), the present emergency is in important respects similar. The threat of war is to loss of life, stability of economy and society, standards of justice, and the sustainability of political institutions in the polity under attack. In both situations, the goal is to defeat the adversary with minimal loss of life and minimal damage to the material supports of a healthy economy and society, without perpetrating injustice, and while also pursuing defeat of the adversary in a way that both lays a foundation for a transition back to a peace-time setting and preserves the polity's political institutions to a maximal extent throughout the crisis and with a view to perpetual sustainability. That is, the goal is not to defeat the adversary at any cost but to preserve one's society, including preserving it as the kind of society it is. In the case of the U.S., this means that efforts at national defense and national security must always have in view the question of how to preserve not only the American people, understood as the particular people alive today, also American constitutional democracy and its cultural supports, sturdy standards for ethical action by public officials and citizens generally, and widespread, robust commitments to justice.

As in wartime, there will be different phases of decision-making and planning and a constant need for re-adjustment in relation to new information and changing circumstances. In a period of flux and change,

## Introduction

---

what needs to be durable and consistent is a set of legitimate and socially accepted objectives.

We are currently in the initial stage of facing the spread of an epidemic, with clear emergency needs to secure our health system while seeking to minimize lives lost and ensure that all patients, including the dying, are treated with dignity. We have to fend off a near-term catastrophe, and in that regard we are in our “triage” moment. We are currently making triage decisions across all sectors of society.

We have already seen the intensity and magnitude of this triage as much of our domestic economy and civil society have ceased operations. There have been three federal declarations of national emergency since January, and there are now declarations of emergency in every state. The same kinds of impacts are also reverberating globally. As we face our “triage” moment, we have to ensure that we make triage decisions that protect and preserve the essential elements of our political institutions and social fabric. To that end, we propose the following principles as the best framework for preserving the American people and American society as a constitutional democracy.

Our overall societal objectives should be (1) to meet the public health emergency with public health mitigation strategies that are (a) coordinated and evidence-based; (b) enable us to secure our health infrastructure in service of fighting the pandemic (c) protect civil liberties; and (d) do not perpetrate injustice; and that mitigate (d) without destroying the economy and material supports of society and (6) while preserving the durability and sustainability of the institutions necessary for constitutional democracy.

As soon as we are able, we will also need to add two further objectives to our decision-making framework. With all of our choices we should also: (7) lay in capacity and habits for ongoing life with a virus

## Introduction

---

of this kind and its periodic return (presuming no near term success with vaccine); and (8) plan for and set clear objectives for a transition off an emergency footing.

But for the moment, the focus must be on triage in relation to the principles articulated in the previous paragraph.

## The Nature of the Emergency

---

# 02

# The Nature of the Emergency

---

Public health experts have been warning about the possibility of novel pandemics for years, and governments around the world and global organizations like the WHO have sought to improve pandemic preparedness. Nonetheless, individual countries and the globe as a whole have been caught by surprise by COVID-19 and the rapid spread of this highly infectious disease. In the U.S. a general reduction in hospital beds as a part of cost-saving measures over the last ten years leaves us without surplus hospital beds and equipment for supporting care in an epidemic. It is critical that both policy-makers and the general public rapidly come up to speed in how to think

## The Nature of the Emergency

---

about the choices and pathways available to battle a novel pandemic virus and securing health, safety, justice, and flourishing for specific societies, and the globe as a whole.

### Key features of the COVID-19 are as follows:

—The ratio of fatalities as a percentage of infections lies somewhere between 1 and 2%, according to the best analyses to date, and assuming functioning healthcare systems ([Bonsall, Parker, and Fraser 2020](#); [Ferguson et al. 2020](#); [Lipsitch 2020a](#); [Lipsitch et al. 2020](#)), though the experiences of Italy and Iran suggest that fatality rates may be considerably higher in case of healthcare system inundation.

—The percentage of cases hospitalized is likely to be around 4.4%, and the number of these then needing critical care is likely to be 30%. ([Ferguson et al. 2020](#))

—“Patient management is complicated by requirements to use personal protective equipment (PPE) and engage in complex decontamination procedures.” ([Bonsall, Parker, and Fraser 2020](#))

—CDC [Center for Disease Control and Prevention] modeling suggests that “without mitigation, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes novel coronavirus disease 2019 (COVID-19), could infect more than 60% of the US population.” ([Gostin et al. 2020](#))

—At the moment, the evidence suggests that the viability of the virus is unlikely to be greatly decreased by warmer weather. (Lipsitch 2020b)

## The Nature of the Emergency

---

—“While the novelty of this coronavirus makes the ultimate course and impact uncertain, it seems possible—even likely—that it could produce enough severe illness to overwhelm health care infrastructures. Already, these shortages have moved from the theoretical to the actual. In the US, perhaps the earliest example was the near-immediate recognition that the supply of existing high-filtration N-95 masks used by healthcare workers was inadequate, prompting the CDC to provide contingency guidance on how to reuse masks designed for single use.<sup>2</sup> Italy appears to be facing shortages of healthcare resources and some physicians have proposed limiting resources such as intensive care beds and ventilators, to those patients with the capacity to benefit most efficiently from treatment. Daegu, South Korea—home to most of that country’s coronavirus cases—faced a hospital bed shortage, with some patients dying at home while awaiting admission..” ([Emanuel et al. 2020](#))

—The urgent threat of loss of life and to the viability of national health systems, and therewith the legitimacy of national governments, has led much of the globe already to transition to an emergency footing reminiscent of war-time, with a range of measures undertaken from cordons sanitaires (as in China) to voluntary and non-voluntary shutdowns of restaurants and businesses and restrictive limits to free association, in the form of the regulation of maximum size of gatherings (as in Europe and the U.S.)

—There are as of yet no anti-viral treatments, though discovery is proceeding rapidly with some potential therapies beginning to emerge. In vitro studies appear to demonstrate potential efficacy of hydroxychloroquine as a prophylactic for the novel coronavirus infection in primate cells, and the authors of an open clinical trial with human subjects have reported initial positive results ([Gautret et al. 2020](#)). Timetable on development of a vaccine is 12 to 18 months in a best-case scenario.



## The Nature of the Emergency

---

—The main tools for addressing the pandemic itself, in the sense of the physical spread of the virus, are screening, testing, contact tracing, decontamination, protection of front-line workers, and a broad range of restrictions on mobility and association. These tools are of varying value depending on the degree of spread of the virus within any given community. For instance, contact tracing is of less value when the infection is widespread in a given community, though it could once again become essential in places where other measures manage to get the outbreak under control

In every society with a well-ordered government, that government understands itself to have responsibility for the well-being of its people, including its public health. A country's public health infrastructure—whether that consists of public systems or public-private hybrids—is a national asset for which the government is responsible, just as it is responsible for a national defense system. No pandemic can be addressed without a functional health system. Saving lives in the face of a pandemic requires in the first instance ensuring a functional health system. Insofar as the existing health infrastructure of the U.S. does not have capacity to meet the projected short-term need for diagnosis and care, decisions must be made to achieve capacity and ward off collapse of our health infrastructure. This objective is the means to achieving an overarching goal of minimizing the loss of life and caring for the dying with dignity. It will be best supported by reducing the rate of transmission of the virus to non-exponential levels. This requires strategies of mitigation as recommended by the community of public health experts.

The key question we have for this period of triage is how to mitigate the spread of the virus (objective 1) by securing our health infrastructure (objective 2) while protecting civil liberties (objective 3), without perpetrating injustice (objective 4), without destroying the economy and material supports of society (objective 5), and while preserving the durability and sustainability of the institutions necessary for

## The Nature of the Emergency

---

constitutional democracy (objective 6).

Each section of this paper addresses how to analyze the relation between mitigation and other collective goals, and proposes principles for decision-making in relation to each of these dimensions: civil liberties, justice, political economy, and the sustainability of constitutional democracy.

## Mitigation and Civil Liberties

---

# 03

# Mitigation and Civil Liberties

---

### *Social Distancing, Isolation, Quarantine, and Civil Liberties*

Securing our health infrastructure and minimizing loss of life requires changing the trajectory of transmission through screening, testing, contact tracing, mobility restrictions, and social distancing. Whereas contact tracing and individualized quarantine and isolation suffice in non-pandemic circumstances, community quarantine and isolation become necessary under pandemic conditions in order to address the emergency. Here the challenging questions are to create the right package of temporarily adjusted norms, regulations, and laws around rights of mobility and association, and to determine whether the relevant packages of norms, regulations, and laws are best

## Mitigation and Civil Liberties

### *Social Distancing, Isolation, Quarantine, and Civil Liberties*

---

achieved through activation of voluntary compliance by residents or through practices of enforcement.

An example of a largely voluntary approach would be Hong Kong's approach to social distancing (reported in the New York Times on March 17) in which civil servants were all required to work at home, which prompted companies to follow suit ([Beech 2020](#)); of course, this voluntary approach was based on extensive prior experience of the population with pandemic control, in the case of Hong Kong the 2003 SARS outbreak.

Practices of enforcement can range from the imposition of fines to the use of police and military to control movement and association. All societies with major outbreaks have already undertaken measures involving enforcement, and not merely voluntarism. Yet they have often undertaken very different sets of measures.

In the broadest outline, the fact that achieving suppression of the rate of transmission of COVID-19 requires adjusting our norms, regulations, and laws for mobility and association does not break new legal ground ([Chesney 2020](#)). That said, some details of our legal framework may require adjustment to address features of COVID-19 specifically. Thanks to the Public Health Service Act 42 USC §264, the federal government has quarantining authority in relation to national and internal borders for people who are carriers of designated diseases. As a highly infectious respiratory disease, COVID-19 should qualify under existing designations. State governments have a fuller range of authorities and are the typical actors with regard to internal policies for public health. Their authorities are broad enough to encompass social distancing, including quarantine (mandatory separation) or isolation (recommended separation) of untested members of the community.

## Mitigation and Civil Liberties

### *Social Distancing, Isolation, Quarantine, and Civil Liberties*

---

In evaluating potential isolation, quarantine, and mobility restrictions, it's important to recognize that our rights to association and mobility are always shaped and limited by law. We don't have absolute freedom of movement even in ordinary circumstances. We may not, for instance, enter an I.C.U. unit at will. We don't have freedom of movement to enter other people's houses at will. The legal structure that guarantees our rights to freedom of movement and association is already open to adjustment on public safety grounds, and this basic legal architecture applies in this case. Consequently, as Bobby Chesney (2020) writes, "All of this suggests we should pay careful attention to who gets to make quarantine decisions, on what grounds the decisions are permitted to be made, and how they can be challenged."

Here we focus on the grounds on which the decisions are permitted to be made, specific factors that should be considered in an effort to achieve just outcomes, and other considerations. First, we acknowledge that public health law in America is complex because authority is divided between federal, state, and local governments, necessitating a high level of coordination. We will consider the constitutional limitations on isolation, quarantine, and mobility restrictions but suggest that readers interested in questions of legality further turn to federal, state, and local laws and regulations along with the [Model State Emergency Health Powers Act](#).

The court precedent on quarantine and isolation for public health purposes is from the turn of the twentieth century, meaning that it does not reflect over a century of development in constitutional jurisprudence. As a result, there is some uncertainty in the application of modern constitutional law to a public health related mass quarantine or associated mobility restrictions. It is likely that the courts will review governmental action to impose mobility restrictions under a strict scrutiny standard, requiring that any policy can argue a **compelling government interest** and that the policy itself is narrowly tailored to serve

## Mitigation and Civil Liberties

### *Social Distancing, Isolation, Quarantine, and Civil Liberties*

---

that interest. It is clear that mitigating the impact of COVID-19 will qualify as a compelling government interest. The question will be whether the actions taken will qualify as the least restrictive alternative to protect public health. Because of the requirement to pursue the **least restrictive alternative**, courts will favor the most narrowly tailored mobility restrictions, such as confinement only of persons who pose significant risks of transmission. Broader restrictions, like the requirement imposed by the Bay Area for all residents to shelter in place, will be subject to more constitutional questioning. For this reason it is helpful for states to adopt approaches to quarantine that are as individuated as possible and to ensure that broader measures have as strong public health justifications as possible. Constitutional jurisprudence also suggests that there must be **procedural due process** in the implementation of these mobility restrictions. People whose freedom of mobility has been restricted must have the ability to challenge that decision, although the mechanism for that challenge may be flexible. In addition, “government should ensure **fair and equal treatment**, avoiding stigma or discrimination against individuals or groups” ([Gostin et al. 2020](#)).

We acknowledge that, in a situation where decisive public health interventions can save a significant number of lives, courts may be reluctant to evaluate quarantine and isolation mandates too harshly. Many of these legal challenges may come after the fact rather than in immediate response to the implementation of mobility restrictions. Nevertheless, it is important to preserve dearly held constitutional liberties by ensuring that we follow this framework in designing and implementing federal, state, and local interventions in response to the epidemic.

Other considerations that courts and lawmakers should take into account include broader values such as flexibility and transparency. Successful frameworks will permit **flexibility** to tailor decisions to the

## Mitigation and Civil Liberties

### *Social Distancing, Isolation, Quarantine, and Civil Liberties*

---

specific public health necessities of an outbreak in particular places; and the reasoning and evaluative criteria informing the decisions should be **transparent** so that citizens and accountability agencies can judge when the justifying circumstances no longer pertain and can recommend reforms to procedures as best practices emerge. Furthermore, the framework should consider the impact of any mobility limiting policy and should work to mitigate those effects, such as providing access to food or safety for those in unsafe living situations, in recognition of human rights principles. Finally, the best frameworks have built in time limits for their use, with any extension requiring reauthorization of the original order.

Consequently, any given package of policies should be assessed first with regard to its potential to contribute in each applicable context (a) to reduce the rate of transmission or reproduction number (the average number of secondary cases each case generates) to a rate that the care system can support on a short-term emergency footing; and (b) to achieve a reproduction number of  $R < 1$  over the long term. Lawmakers and policymakers should keep constitutional principles in mind when designing their responses to the epidemic to avoid any unnecessary violations of civil liberties. When impacts of two different sets of policies are on a par, the less restrictive option should be the one chosen, and policymakers should be able to exhibit evaluations of this kind transparently in their communications to the public. Finally, they should provide clear and reviewable timetables for all orders.

Federal law may need adjustment to ensure that it can be used to address the problem of people who have had direct exposure but have not yet been tested. Many state laws already permit application of isolation and quarantine authorities to those who have direct exposure but are untested, but some states may need to clarify this aspect of their legal framework. At the state level, some packages of pre-existing authorities are superior to others, and the National Governors' Association should work

## Mitigation and Civil Liberties

### *Social Distancing, Isolation, Quarantine, and Civil Liberties*

through the existing packages of authorities and offer an assessment of which are most appropriate in the current circumstances, such that other states can model after them.

As an example of the variation, we might compare two relatively strong frameworks. Connecticut’s authorities appear appropriately flexible, transparent, guided by a commitment to least restrictiveness, and explicit about time limitations. Ohio has a distinctly powerful set of authorities that may provide insufficient guardrails against abuse of power. Specifically, the authorities do not foreground a “least restrictive” standard; the provisions around undocumented immigrants are likely to incentivize efforts to obscure existence of the disease and so to undermine public health objectives; and time limitations are insufficiently set out.

<b>Connecticut</b>	Conn. Gen. Stat. § 368e-19a-221 (2003)	Authority. In the event of a statewide or regional health emergency, the governor may authorize the Public Health Commission to quarantine or isolate individuals reasonably suspected as being infected or exposed to a communicable disease. Any town, city, borough or district director of health can issue a quarantine or isolation order if necessary to protect public health.
<b>Connecticut</b>	Conn. Gen. Stat. § 368a-19a-131a (2003)	Penalties. Anyone who violates the provisions of a quarantine order or obstructs those tasked with carrying it out shall be fined no more than \$1,000 and/or imprisoned for no more than a year.
<b>Connecticut</b>	Conn. Gen. Stat. § 368a-19a-131b-31d (2003)	Police Power and Limitations. Quarantine is only appropriate if it is the least restrictive option to protect public health and individuals in quarantine must be provided access to appropriate medical care and other basic needs. Individuals should be released from quarantine at such a point as they no longer pose a risk of contagion. Commissioners must write an order for quarantine. Those subject to quarantine can challenge this order in court. If an individual refuses to obey a quarantine order, they may be taken into custody and placed into quarantine.



## Mitigation and Civil Liberties

### *Social Distancing, Isolation, Quarantine, and Civil Liberties*

<b>Ohio</b>	Ohio R.C. § 3701.13	Authority. The department of health shall have supervision of all matters relating to the preservation of the life and health of the people and have ultimate authority in matters of quarantine and isolation, which it may declare and enforce, when neither exists, and modify, relax, or abolish, when either has been established.
<b>Ohio</b>	Ohio R.C. § 3707.08)	When a person known to have been exposed to a communicable disease declared quarantinable by the board of health of a city or general health district or the department of health is reported within its jurisdiction, the board shall at once restrict such person to his place of residence or other suitable place, prohibit entrance to or exit from such place without the board's written permission in such manner as to prevent effective contact with individuals not so exposed, and enforce such restrictive measures as are prescribed by the department.
<b>Ohio</b>	Ohio R.C. § 3707.15	Penalties. Any person that employs an alien who is not legally present in the United States and has a contagious or infectious disease contracted before or during employment shall pay to the municipal corporation, township, or county in which the alien is employed any expense caused by the contagious or infectious disease.
<b>Ohio</b>	Ohio R.C. § 3707.09	Police Power & Limitations. The board of health of a city or general health district may employ as many persons as are necessary to execute its orders and properly guard any house or place containing any person affected with or exposed to a communicable disease declared quarantinable by the board or the department of health. The persons employed shall be sworn in as quarantine guards, shall have police powers, and may use all necessary means to enforce sections 3707.01 to 3707.53, inclusive, of the Revised Code, for the prevention of contagious or infectious disease, or the orders of any board made in pursuance thereof.
<b>Ohio</b>	Ohio R.C. § 3707.31	When great emergency exists, the board of health of a city or general health district may seize, occupy, and temporarily use for a quarantine hospital a suitable vacant house or building within its jurisdiction. The board of a district within which is located a municipal corporation having a quarantine hospital shall have exclusive control of such hospital.

## Mitigation and Civil Liberties

---

### *Transparency*

It is worth spending some time on further challenges to transparency in a time of fast-moving decision-making and triage because an important limitation on the use of emergency powers resides in clear definitions of the emergency itself.

In the context of a public health crisis, the emergency moment should be defined with reference to epidemiological categories. The Center for Disease Control 2020 Interim [Guidance](#) to schools provides a good example here:

“Guidance for childcare programs and schools is organized into three categories based on the level of community transmission: 1) when there is no community transmission (preparedness phase), 2) when there is minimal to moderate community transmission, and 3) when there is substantial community transmission.”

More broadly, with regard to infectious diseases with high fatality rates and intensive care burdens, an emergency obtains when the reproduction number ( $R$  = the average number of secondary cases each case generates) is above 1, with the result that the disease spreads exponentially and when caseloads can be expected to exceed the capacity of the medical infrastructure. The emergency moment is over when the reproduction number falls below 1 **and** when the total caseload falls to a level that can be managed by the health care system.

During the emergency period when  $R > 1$  and caseloads are headed above or exceed our capacity, we can think of the emergency as having two stages:

## Mitigation and Civil Liberties

### *Transparency*

---

**Stage 1:** The reproduction number is well above 1, and policy responses are still new and have not yet occasioned mass disruptions.

**Stage 2:** The reproduction number is still above 1, and the ongoing spread of the disease is now coupled with socially impactful levels of mortality and significant economic and social dislocation, and the society no longer has the capacity to bear the most aggressive mitigation measures.

The emergency moment is over when we reach a point where (a) there are periodic renewed outbreaks but they have reproduction numbers  $< 1$  and are of lower intensity; (b) the absolute caseload has receded to manageable levels; and (c) our health infrastructure has been raised up to a level sufficient to meet the episodic but now routine level of need. This stage, Stage 3, would be a “new normal.”

We are too early in the trajectory of the COVID-19 epidemic and there is still too much about the disease that we do not understand for anyone to lay out timelines or timetables for achieving either suppression of the disease or a new normal. In that regard, the best we can do is address the current moment with the resources we have, knowing that we will have to continually adjust our responses from week to week. The open-ended nature of this initial moment of emergency is what makes transparency around assessments of emergency status so critical. Such transparency gives the public a way of evaluating whether the assertions of emergency powers are reasonable and legitimate. Communications from the federal authorities to the states and the public need to improve quickly in this regard.

Precisely because policy must be especially flexible and adaptable in emergency contexts, it is important to define the parameters of the emergency context and to publicly provide data about whether

## Mitigation and Civil Liberties

### *Transparency*

---

the emergency context pertains. All states should regularly publish the reproduction number estimated for their state as a part of introducing policies of suppression, containment, and/or mitigation. Knowledge about these rates of transmission and changes in them will help prepare for a transition back to a non-emergency footing. Transparency has been important to Singapore's exemplary success at suppression ([Beech 2020](#)).

Of course, transparency is worthwhile only when the data shared is of sufficiently high quality. Without widespread and easily available testing, it may be difficult or impossible for states to accurately capture the state of COVID-19 transmission, including the estimated reproduction number. In addition to identifying important metrics, we need to initiate policies to support gathering of high quality epidemiological data so we can have the best sense of the state of the disease in our communities.

We need to protect our capacities to record and report data as part of how we focus our energies in this triage period.

## Avoiding Injustice

---

# 04

# Avoiding Injustice

---

In making decisions about individual and collective isolation and quarantine, decision-makers must adhere to standards of fair and equal treatment and avoid stigma or discrimination against individuals or groups. These are requirements of justice.

Yet the requirements of justice extend beyond the grounds and factors leading to formal orders of quarantine or isolation. Vulnerable populations require direct consideration with regard to identifying policies that can also protect and secure them. Populations most in need of formalized attention here, including in our triage moment are

## Avoiding Injustice

---

incarcerated individuals, homeless and underhoused individuals, residents in nursing homes, undocumented migrants, and children impacted by school closures. The first three groups are all vulnerable to high rates of transmission—in the first case because of their residential situations. The fourth group is also vulnerable to high rates of transmission because of fear of engagement with public authorities. The vulnerability of each of these populations also poses a risk for society as a whole, since outbreaks among these communities can undermine other efforts at mitigation, as occurred in Washington State.

Congressional legislation and CDC guidelines should include attention to vulnerable populations as a routine matter. Here too the basic principles of protecting health and safety, civil liberties, economic participation, and access to constitutional democracy apply.

Civil society organizations have already been doing a remarkable job of outlining principles to guide decision-making for these populations, and policy-makers and decision-makers should move quickly to convert their recommendations into institutional guidance.

For instance, with regard to incarcerated populations, the Justice Roundtable recommendations (2020) argue for the importance of protecting the health and safety of incarcerated people and those who work in prisons and jails through the provision of health services, de-densification of prisons and jails and maximal possible accelerated reentry of incarcerated people to the community, with supports for that re-entry. They have advocated for establishing a bright line against the use of solitary confinement as a substitute for appropriate quarantine or isolation facilities. They have argued for a principle of non-exploitation, with the proposal that as incarcerated people are pulled into the labor force to produce necessary supplies for the epidemic they should receive a minimum wage.

## Avoiding Injustice

---

Disseminating these principles of just treatment for incarcerated people throughout the network of public institutions responsible for their care is of critically urgent importance.

With regard to undocumented migrants, the Justice Roundtable recommendations (2020) argue for the following approaches: “Congress should direct Immigration and Customs Enforcement to release people currently detained under their authority, with a high priority for releasing individuals who are elderly, pregnant, people with disabilities, living with HIV, or others who are vulnerable to illness. ICE should also: a. Cease all local enforcement operations. b. Postpone all check-ins and mandatory court appearances for at a minimum of during and for at least 30 days after the current National Emergency.”

With regard to the homeless and underhoused, the [National Law Center on Homelessness and Poverty recommendations](#) (2020) argue for critical action steps that include housing people experiencing homelessness in hotels, motels, and/or RVs for the duration of the crisis to enable social distancing and adequate sanitation; placing a moratorium on sweeping encampments and seizing tents and other temporary structures; halting all eviction and foreclosure proceedings and putting moratoria in place.

As a final example, we might turn to the impact of mitigation strategies on children via school closures. Schools play a wide variety of roles in individuals’, families’, and communities’ lives, of which distribution of academic learning opportunities is only one. They also provide (this is a partial list):

- Safe, supervised, and dependable care for children while parents are working
- Nutrition (free/reduced-price breakfasts, lunches, and sometimes dinners)
- Physical, occupational, speech, behavioral, and other therapies; psychological and counseling services; access to social workers

## Avoiding Injustice

---

- Services in particular for homeless children: laundry, safe physical space especially when the shelter may close during the day, etc.
- An additional set of adult “eyes” on children to ensure they are not suffering abuse or neglect at home
- Sense of community, collective identity
- Relatedly, democratic education: we’re all in this together, learning across lines of difference, collaboration, etc.

As we think about avoiding injustices in policy decisions we make about closing schools and providing educational resources remotely, we need to attend to this broader array of services that schools provide rather than solely injustices related to accessing academic learning opportunities.

With regard to learning opportunities, there are many ways in which education can be provided without use of digital technologies (in fact, it was for thousands of years!). Mail packets home, send kids bags of books, provide Open University-type courses over TV and radio, etc. It is important to remember the broad array of learning and teaching modalities that are available and/or have historically been used over time.

Insofar as schools turn to technology to continue to educate through school closures, digital divides exist in a number of ways: (a) access to and quality of hardware; (b) access to and extent of broadband and/or high-quality cell service; (c) knowledge/comfort with using hardware, software, apps, etc; (d) quality of learning materials, pedagogies, etc., both in general and with respect to accessibility via different hardware platforms (e.g., phones vs. computers); (e) accessibility for students with various disabilities (e.g., captioning for Deaf students, descriptions of visual objects for blind students); and (f)



## Avoiding Injustice

---

motivation and capacity to succeed in totally online learning environment rather than hybrid settings. We can use public policy to address (a) and (b). A number of districts are already trying to distribute computers or tablets to students who don't have access to them, and this effort could be broadened and taken up by states. Comcast has already announced (as reported in the Denver Post on March 13) that they would make broadband free for a few months in a number of jurisdictions where schools have been closed, and that they would hook up families that don't yet have access to WiFi ([Svaldi 2020](#)). Other internet providers could do the same, and telecoms could also eliminate data restrictions where schools are closed.

Mitigating without destroying  
the economy and society

---

# 05

# Mitigating without destroying the economy and society

---

**M**eeting the emergency in this period of triage and aggressive mitigation requires careful attention to the impact of public health policies on the economy and society.

The measures taken to transition from a reproduction number over 1 to a reproduction number under 1 have already been economically and socially costly. These measures will continue to accumulate costs whether they are undertaken aggressively and achieve faster impacts, or more moderately and over a longer period of time through repeated applications of the relevant policy packages for delay, mitigation, and containment.

## Mitigating without destroying the economy and society

---

The economic costs of these policies are already clear: disruptions in global and local supply chains; massive job loss; market illiquidity; a corporate debt crisis; asset price declines (loss of home values and retirement security); personal bankruptcy; and financial system stress (as creditors face default from borrowers). There are also supply bottlenecks (masks and ventilators most urgently) and the problem of hoarding and profiteering. The war analogy is especially salient for supply bottlenecks and the need to redirect industrial production. The potential social costs include all those typical of a major recession or depression—deaths of despair and other negative health impacts (Case and Deaton 2020); degradation of human skills and resources; mental health harms; and political unrest.

Consequently, public health actions to halt a pandemic must be taken in tandem with actions on behalf of the economy and material supports of social well-being and on behalf of political stability. Again, the analogy to war is apt. Wartime disrupts national and global economies and national defense strategy must be as attuned to economic exigencies as to military strategies and tactics.

While there is general agreement that the economic effects of COVID-19 will be devastating, it's useful to partition these into two categories: effects on the composition of economic activity, and effects on its scale. We can think about first round responses to the economic effects along both dimensions.

Composition effects refer to the collapse in demand for certain goods and services, even as there is a sharp increase in demand for others. There is collapsing demand for travel and lodging, meals and entertainment, and consumer durables whose purchase can be delayed, such as automobiles. At the same time, demand is spiking for health-related services, masks and ventilators, sanitizers and cleaning supplies, and video conferencing software.

## Mitigating without destroying the economy and society

---

Scale effects refer to the collapse in aggregate output and employment. According to a March 12 [Reuters](#) report, economists at JP Morgan are predicting a contraction of 4% in the first quarter and another 14% in the second. According to a March 20 [Barrons](#) report, economists at Goldman Sachs are projecting a 24% contraction of the economy for the second quarter. The major stock market indexes have lost a quarter of their value over the past month, wiping out the gains made over the past three years. The Treasury Secretary has warned that inaction by Congress could result in an unemployment rate of 20%, which was last seen during the depths of the Great Depression.

These different categories of effects call for different policy responses.

### *Composition Effects*

For scarce goods and services in high demand, incentives need to be created for increases in supply. Some adjustments of this kind will occur even in the absence of any government intervention. The sharp rise in online purchases has increased demand for home delivery, to which Amazon has responded by hiring additional 100,000 workers, according to a March 17 Forbes report ([Kelly 2020](#)). And some distilleries are converting their operations to produce alcohol-based disinfectants, according to a March 18 AP story ([Rubinkam and Rathke 2020](#)).

However, the New York Times reported on March 18 that market solutions are simply not available for some of the most critically needed items, such as ventilators ([Kliff et al. 2020](#)). While there are about a dozen suppliers in the United States, they rely on components produced across the world. Global supply chains have been disrupted just as global demand is surging. Something akin to a wartime mobilization

## Mitigating without destroying the economy and society

### *Composition Effects*

---

with mass conversion of factories will be necessary to meet the anticipated demand.

Health care workers are the most vulnerable to infection, especially in the absence of adequate supplies of protective equipment. But they are also in exceptionally high demand. The possibility of providing incentives for retired workers to re-enter the workforce must be balanced against the fact that the elderly are especially vulnerable.

Scarcity creates motives for hoarding and profiteering, which exacerbates the scarcity and allows those with greater wealth to secure basic supplies more easily while others are priced out ([Nicas 2020](#); [Quan 2020](#)). This needs to be monitored and prevented.

Composition effects also affect municipalities, many of whom are facing collapsing revenues as the use of public transportation falls; New York is the major example, as reported by the New York Times on March 18 ([Goldbaum 2020](#)). Unlike the federal government, the solvency of state and local governments cannot be taken for granted, so they cannot simply issue debt to cover their shortfalls. Federal support for state and local governments at this time is critical.

### *Scale Effects*

Contraction of the overall level of economic activity and increasing rates of unemployment require a different type of policy response.

One approach is to provide direct cash transfers to households so they can continue to purchase essential items and remain current with their financial obligations, especially their rent or mortgage payments.

## Mitigating without destroying the economy and society

### *Scale Effects*

---

These could be universal or targeted, there are advantages and disadvantages to each. Unemployment benefits could also be raised and their duration extended. However, while a basic income may be enough to cover essential purchases, it will still not be possible for many people to make payments on debt. Evictions, foreclosures, debt collection, and automobile repossessions should be suspended.

Many firms are keeping employees on payroll, and should be encouraged and compensated for this. The action announced by the [Federal Reserve](#) on March 17 to launch the Commercial Paper Funding Facility—which effectively provides for short term credit to firms and enables them to roll over their existing debt obligations—is a very important step in this direction

In sum, over the course of the next weeks, we should immediately invest in new equipment and spaces, using strategies that include repurposing of industrial capacity, rapid cross-licensing of doctors and nurses, and reassigning human capital by delaying a variety of elective procedures. We should also maintain consumption through direct cash transfers or mechanisms such as providing backstop health insurance coverage (via Medicaid, the exchanges, or some other mechanism) in the states for everyone who is disrupted from their jobs, plus paying these people a stipend as long as they (1) obey shelter in place rules, and (2) are able and eligible to participate in retraining/redeployment efforts (for instance, to help with sanitation at hospitals) for the length of the disruption. This latter approach would in effect be a national service model, as for a war mobilization. In addition, we ought to support corporate debt as a tool for supporting payrolls, and the federal government needs to backstop state and municipal budgets.

**Mitigating while preserving the  
institutions of constitutional democracy**

---

**06**

**Mitigating while  
preserving the  
institutions of  
constitutional democracy**

---

The current public health crisis will strain the institutions of constitutional democracy along multiple dimensions, including the electoral system, chains of command, and the role of the police. It is critical both that we make public health policy choices that align with the norms of constitutional democracy and that we take complementary steps directly on behalf of constitutional democracy.

## Mitigating while preserving the institutions of constitutional democracy

---

### *Electoral System*

The electoral system is already under strain. Several states have postponed primary elections. In Ohio, Governor Mike DeWine took the decision to do so despite the court saying “no.” This was in all likelihood a good-faith effort to prioritize public health but it is a powerful reminder that in the days, weeks, and months to come, we may not be able to expect norms, laws, or even court orders to restrain actions by public officials that they consider necessary to save lives or enforce order. Many officials at every level, like DeWine, will take a “So sue me later!” approach. There is a danger that we will also see plenty of “sue me later” actions that will be undertaken in bad faith, for partisan reasons. As courts close or defer proceedings and more and more officials simply choose to disregard legal requirements, our familiar legal remedies will become less and less useful.

Given that we cannot currently predict what the presence of COVID-19 will be within American communities by November 2020, there is an urgent need to transition the 2020 presidential election to a comprehensive vote-by-mail system immediately or, at a minimum, universal adoption of no-excuse absentee voting. These efforts will need to be primarily at the state level and should begin immediately. [Nathaniel Persily and Christopher Stewart](#) (2020) have offered ten key recommendations for ensuring a healthy and trustworthy 2020 election. These include, in alignment with our focus here, the recommendation that “States should approach this situation as an emergency, not as an opportunity to make long-term changes to election policy.” As they put it, “American democracy has endured a civil war, two world wars and the flu pandemic of 1918. The U.S. held elections during all of those life-changing and democracy-endangering events. The COVID-19 pandemic represents a unique challenge. It requires an extraordinary commitment at all levels of government, and from the media, political parties, campaigns and voters. The country can meet this challenge if Americans begin to prepare immediately.”



## Mitigating while preserving the institutions of constitutional democracy

---

### *Chain of Command*

While the federal government has good chain of command protocols in place, establishing who succeeds the executive, or unit head, in the case of incapacitation, the plethora of organizations in civil society are unevenly equipped with good chain of command protocols. Insofar as smart, efficient organizational decision-making will be critical to respond to the pandemic and to maintain structures of social connection and social legitimacy, all civil society organizations should be currently working on clear chain of command and emergency succession protocols.

### *The Role of the Police*

The Ohio legal authorities regarding isolation and quarantine spelled out above provide a good window into the centrality of police power to social control during an epidemic or pandemic. The administration of justice is one of the first jobs of a healthy society; policing has often been a weak spot in the American system of justice. There is an urgent need to train police now for the distinct exigencies of these circumstances, with an eye to ensuring that their methods and techniques will help sustain constitutional democracy, rather than eroding the legitimacy of our political institutions.

## Conclusion

---

# 07

# Conclusion

---

This triage moment will have such impacts that we can be sure the world will look different in six weeks and the very same set of principles may require a completely different set of policies by six weeks from now. Nonetheless, sustained focus on a clear set of shared objectives should help us to traverse this difficult terrain. Our attention must be trained resolutely on meeting the public health emergency with coordinated evidence-based public health mitigation strategies that enable us to secure our health infrastructure in service of fighting the pandemic while protecting civil liberties, without perpetrating injustice, without destroying the economy and material supports of society, and while preserving

## Conclusion

---

the durability and sustainability of the institutions necessary for constitutional democracy.



---

<sup>i</sup> The authors would like to thank Ezekiel Emanuel (Department of Medical Ethics and Health Policy, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania); Marc Lipsitch (Department of Epidemiology, Harvard School of Public Health); Lawrence Goskin (O'Neill Institute for National and Global Health Law, Georgetown University Law Center); and Arthur Applbaum (Harvard Kennedy School, Harvard University) for consultation.

## References

---

# 08

# References

---

Abbot, Timothy R., et al. 2020. "Development of CRISPR as a *Prophylactic Strategy to Combat Novel Coronavirus and Influenza*." BiorXiv, posted March 14, 2020. <https://www.biorxiv.org/content/10.1101/2020.03.13.991307v1> (accessed March 19, 2020).

Association of State and Territorial Health Officials. 2020. "Coronavirus Disease 2019 (COVID-19). <https://astho.org/COVID-19/?terms=covid> (accessed March 17, 2020).

Baker, Peter, and Eileen Sullivan. 2020. "U.S. Virus Plan Anticipates 18-Month Pandemic and Widespread Shortages." *New York Times*, March 17, 2020. <https://nyti.ms/2WliQGB> (accessed March 18, 2020).

Bonsall, David, Michael Parker, and Christophe Fraser. 2020. *Sustainable Containment of COVID-19 using Smartphones in China: Scientific and Ethical Underpinnings for Implementation of Similar Approaches in Other Settings*. **Posted March 17, 2020.** [https://github.com/BDI-pathogens/covid-19\\_instant\\_tracing/blob/master/Policy%20forum%20-%20COVID-19%20containment%20by%20herd%20protection.pdf](https://github.com/BDI-pathogens/covid-19_instant_tracing/blob/master/Policy%20forum%20-%20COVID-19%20containment%20by%20herd%20protection.pdf) (accessed March 19, 2020).

## References

---

Burkert, Andi, and Avi Loeb. 2020. "Flattening the COVID-19 Curves." *Scientific American*. Blog posted March 17, 2020. <https://blogs.scientificamerican.com/observations/flattening-the-covid-19-curves/> (accessed March 18, 2020).

Case, Anne, and Angus Deaton. 2020. *Deaths of Despair and the Future of Capitalism*. Princeton, NJ: Princeton University Press, 2020.

Centers for Disease Control and Prevention. 2020. *Interim Guidance for Administrators of US K-12 Schools and Childcare Programs: Plan, Prepare, and Respond to Coronavirus Disease 2019 (COVID-19)*. Last revised March 12, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-schools.html> (accessed March 18, 2020).

Chesney, Robert. 2020. "The Quarantine Power: A Primer in Light of the Coronavirus Situation." *Lawfare*. Blog posted February 7, 2020. <https://www.lawfareblog.com/quarantine-power-primer-light-coronavirus-situation> (accessed March 13, 2020).

EXIT: Executives Transforming Probation & Parole. 2020. "Coronavirus Threat: Parole and Probation Officials Offer Urgent Recommendations." Press release, March 17, 2020.

Department of Health and Social Care (UK). 2020. *Coronavirus Action Plan: A Guide to What You Can Expect Across the UK*. Policy paper, March 2, 2020. <https://www.gov.uk/government/publications/coronavirus-action-plan> (accessed March 16, 2020).

Emanuel, Ezekiel J., Susan Ellenberg, and Michael Levy. 2020. "The Coronavirus Is Here to Stay, So What Happens Next?" *New York Times*, March 17 2020. <https://nyti.ms/33nKv1C> (accessed March 17, 2020).

Emanuel, Ezekiel J., et al. 2020. "How The Coronavirus May Force Doctors To Decide Who Can Live and Who Dies." *New York Times*, March 12, 2020. <https://nyti.ms/2w1YrM6> (accessed March 19, 2020).

Federal Reserve Board of Governors. 2020 " Federal Reserve Board announces establishment of a Commercial Paper Funding Facility (CPFF) to support the flow of credit to households and businesses." Press release, March 17, 2020. <https://www.federalreserve.gov/newsevents/pressreleases/monetary20200317a.htm>

Ferguson, Neil M., et al. 2020. "Impact of Non-Pharmaceutical Interventions (NPIs) to Reduce COVID-19 Mortality and Healthcare Demand." *Imperial College COVID-19 Response Team*. Report 9, March 16, 2020. <https://spiral.imperial.ac.uk:8443/handle/10044/1/77482> (accessed March 16, 2020).

## References

---

Gautret, Philippe, et al. 2020. “Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an open label non-randomized clinical trial.” *International Journal of Antimicrobial Agents*—In press March 17, 2020. [https://www.mediterranee-infection.com/wp-content/uploads/2020/03/Hydroxychloroquine\\_final\\_DOI\\_IJAA.pdf](https://www.mediterranee-infection.com/wp-content/uploads/2020/03/Hydroxychloroquine_final_DOI_IJAA.pdf) (accessed March 19, 2020).

Goldbaum, Christina. 2020. “M.T.A., Citing Huge Drop in Riders, Seeks \$4 Billion Virus Bailout.” *New York Times*, March 17, 2020. <https://www.nytimes.com/2020/03/17/nyregion/coronavirus-nyc-subway-federal-aid-.html> (accessed March 18, 2020).

Gordon, Calvin J., et al. 2020. “The Antiviral Compound Remdesivir Potently Inhibits RNA-dependent RNA Polymerase from Middle East Respiratory Syndrome Coronavirus.” *Journal of Biological Chemistry* (Feb. 24, 2020).

Gostin, Lawrence. 2001. *The Model State Emergency Health Powers Act, as of December 21, 2001*. The Center for Law and the Public’s Health at Georgetown and Johns Hopkins Universities. <http://www.publichealthlaw.net/MSEHPA/MSEHPA2.pdf> (accessed March 18, 2020).

Gostin, L. O., J. G. Hodge, and L. F. Wiley. 2020. “Presidential Powers and Response to COVID-19.” *JAMA* (online), March 18, 2020. [doi:10.1001/jama.2020.4335](https://doi.org/10.1001/jama.2020.4335)

Grind, Kirsten, Robert McMillan, and Anna Wilde Mathews. 2020. “To Track Virus, Governments Weigh Surveillance Tools that Push Privacy Limits.” *Wall Street Journal*, March 17, 2020. [https://www.wsj.com/articles/to-track-virus-governments-weigh-surveillance-tools-that-push-privacy-limits-11584479841-?mod=hp\\_lead\\_pos4](https://www.wsj.com/articles/to-track-virus-governments-weigh-surveillance-tools-that-push-privacy-limits-11584479841-?mod=hp_lead_pos4) (accessed March 18, 2020).

Human Breakout Response. 2020. *Humanity Not Cages: Demanding a Just and Humane Response to Outbreak*. [humaneoutbreakresponse.org](http://humaneoutbreakresponse.org) (accessed March 19, 2020).

Justice Roundtable. 2020. *Recommendations for Protecting Incarcerated Youth and Adults During the COVID-19 Pandemic*. March 18, 2020.

Kelly, Jack. 2020. “Amazon Is Hiring 100,000 Workers: Will This Good News Ultimately Crush Small Businesses?” *Forbes*, March 17, 2020. <https://www.forbes.com/sites/jackkelly/2020/03/17/amazon-is-hiring-100000-workers-will-this-good-news-ultimately-crush-small-businesses/#35873d3828fd> (accessed March 19, 2020).

## References

---

Klein, Dan, et al. 2020. Working Paper – *Model-Based Estimated of COVID-19 Burden in King and Snohomish Counties through April 7, 2020*. (Results as of March 10, 2020). <https://institutefordisease-modeling.github.io/COVID-public/reports/Working%20paper%20%E2%80%93%20model-based%20estimates%20of%20COVID-19%20burden%20in%20King%20and%20Snohomish%20counties%20through%20April%207.pdf>

Kliff, Sarah, Adam Satariano, Jessica Silver-Greenberg, and Nicholas Kulish. 2020. “There Aren’t Enough Ventilators to Cope With the Coronavirus.” *New York Times*, March 18, 2020. <https://www.nytimes.com/2020/03/18/business/coronavirus-ventilator-shortage.html> (accessed March 18, 2020).

Lin, Liza, and Joyu Wang. 2020. “Singapore, Taiwan and Hong Kong Face Second Wave of Coronavirus Cases.” *Wall Street Journal*, March 17, 2020. <https://www.wsj.com/articles/singapore-taiwan-and-hong-kong-face-second-wave-of-coronavirus-cases-11584445836> (accessed March 18, 2020).

Lipsitch, Marc. 2020a. “Why It’s So Hard to Pin Down the Risk of Dying from Coronavirus.” *Washington Post*, March 6, 2020. <https://www.washingtonpost.com/opinions/2020/03/06/why-its-so-hard-pin-down-risk-dying-coronavirus/> (accessed March 18, 2020).

Lipsitch, Marc. 2020b. “Seasonality of SARS-CoV-2: Will COVID-19 go away on its own in warmer weather?” Center for Communicable Disease Dynamics (CCDD) at the Harvard T.H. Chan School of Public Health. <https://ccdd.hsph.harvard.edu/will-covid-19-go-away-on-its-own-in-warmer-weather/> (accessed March 18, 2020).

Lipsitch, Marc, David L. Swerdlow, and Lyn Finelli. “Defining the Epidemiology of Covid-19—Studies Needed.” *New England Journal of Medicine*, February 19, 2020. DOI: [10.1056/NEJMp2002125](https://doi.org/10.1056/NEJMp2002125)

MacFarquhar, Neil. 2020. “Can You Be Forced into Quarantine? Your Questions, Answered.” *New York Times*, March 16, 2020. <https://nyti.ms/2QbNSNc> (accessed March 16, 2020).

McAndrew, Thomas. 2020. *Preliminary Report on Aggregated Expert Predictions on COVID-19*. Unpublished paper, March 11, 2020. <https://works.bepress.com/mcandrew/1/> (accessed March 11, 2020).

National Conference of State Legislatures. 2020. “State Quarantine and Isolation Statutes.” Posted February 27, 2020. <https://www.ncsl.org/research/health/state-quarantine-and-isolation-statutes.aspx> (accessed March 15, 2020).

NationalLawCenteronHomelessnessandPoverty.2020.“COVID-19Statement&Recommendations.”<http://nlchp.org/wp-content/uploads/2020/03/COVID-19-Statement.pdf> (accessed March 19, 2020).

## References

---

Nicas, Jack. 2020. “He Has 17,700 bottles of hand sanitizer and nowhere to sell them” *New York Times*, March 15, 2020. <https://www.nytimes.com/2020/03/14/technology/coronavirus-purell-wipes-amazon-sellers.html> (accessed March 14, 2020).

Persily, Nathaniel, and Charles Stewart III. 2020. “Ten Recommendations to Ensure a Healthy and Trustworthy 2020 Election.” *Lawfare*, March 19, 2020. <https://www.lawfareblog.com/ten-recommendations-ensure-healthy-and-trustworthy-2020-election> (accessed March 20, 2020).

Quan, Douglas. 2020. “‘We’re hustlers’: Amid coronavirus fears, this couple has made more than \$100,000 reselling Lysol wipes.” *The Star*, March 12, 2020. <https://www.thestar.com/news/canada/2020/03/12/were-hustlers-amid-coronavirus-fears-this-couple-has-made-more-than-100000-reselling-lysol-wipes.html> (accessed March 18, 2020).

Reuters. 2020. “JP Morgan slashes forecast for U.S. GDP, sees 14% Q2 drop.” Reuters, March 18, 2020. <https://www.reuters.com/article/health-coronavirus-jpmorgan-usa-idUSU5N281010> (accessed March 18, 2020).

Rubinkam, Michael, and Lisa Rathke (AP). 2020. “Distilleries now making hand sanitizer,” *Arkansas Democrat Gazette*, March 18, 2020. <https://www.arkansasonline.com/news/2020/mar/18/distilleries-now-making-hand-sanitizer-/?business-national> (accessed March 18, 2020).

Schlesinger, Jacob M., and Jon Hilsenrath. 2020. “Challenge for Policy Makers: Rescue Economy without Fueling Populist Backlash.” *Wall Street Journal*, March 17, 2020.

Scraggs, Alexandra. 2020. “The U.S. Economy Could Contract by 24% Next Quarter, Goldman Sachs Says.” *Barrons*. March 20, 2020. <https://www.barrons.com/articles/u-s-economy-could-contract-by-24-next-quarter-goldman-sachs-says-51584713292>

Svaldi, Aldo. 2020. “Comcast offering free broadband to low-income households to help them cope with virus outbreak.” *Denver Post*, March 13, 2020. <https://www.denverpost.com/2020/03/13/comcast-free-broadband-low-income-households-coronavirus/>. (accessed March 13, 2020).

Walzer, Michael. 1977. *Just and Unjust Wars: A Moral Argument with Historical Illustrations*. New York: Basic Books.

Wang, Manli, et al. 2020. “Letter to the Editor: Remdesivir and Chloroquine Effectively Inhibit the Recently Emerged Novel Coronavirus (2019-nCoV) In Vitro.” *Cell Research* (2020) 30:269–71.



## References

---

Weyl, Glen. 2020. "Covid-19 in Taiwan." *Foreign Affairs*, March 20, 2020.

Yong, Ed. 2020. "The U.K.'s Coronavirus 'Herd Immunity' Debacle." *The Atlantic*, March 16, 2020. <https://www.theatlantic.com/health/archive/2020/03/coronavirus-pandemic-herd-immunity-uk-boris-johnson/608065/> (accessed March 16, 2020).

