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STRUCTURED TO FAIL: LESSONS FROM THE TRUMP ADMINISTRATION'S FAULTY PANDEMIC PLANNING AND RESPONSE

Alejandro E. Camacho* & Robert L. Glicksman**

Abstract

The Trump Administration's response to the COVID-19 pandemic is a stark reminder that poorly designed government can be a matter of life and death. This article explains how the Administration's careless and delayed response to the crisis was made immeasurably worse by its confused and confusing reallocation of authority to perform or supervise tasks essential to reducing the virus's ravages.

After exploring the rationale for and impact of prior federal reorganizations responding to public health crises, the article shows how a combination of unnecessary and unhelpful overlapping authority and a thoughtless mix of centralized and decentralized authority contributed to the Trump Administration's slow and ineffective effort to stem the virus's tide. Furthermore, the Administration's earlier dismantling of the structure built in the wake of prior outbreaks disabled a mechanism crucial to any federal response to public health threats—its ability to coordinate the efforts of public and private actions to effectively combat the crisis.

The article identifies numerous valuable lessons about government organization from the COVID-19 experience that should guide policymakers' deliberations in the likely event that they embark upon an effort to address the mistakes plaguing the Trump Administration's dismal response. More generally, it uses the government's response to COVID-19 to explore a number of insights about how to better think about and configure government institutions to prepare for and manage complex social problems like a pandemic.

I. INTRODUCTION

The spread of a virulent pathogen poses challenges to governance even under the best circumstances. But society stands the best chance of minimizing illness and death, just as it does in addressing myriad social problems, if it is well-organized to take on those challenges. Unfortunately, the Trump Administration's planning for and response to the COVID-19 pandemic provide a stark reminder that poorly designed government can be a matter of life and death. The Administration's public recognition or acknowledgment of the severity of the crisis was, to put it

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¹ See infra Part II.

mildly, slow to develop.² President Trump himself was well aware of the health threats posed by COVID-19 at the very early stage of the pandemic, but nonetheless downplayed those threats in public comments.³ Kenneth Barnard, a retired Rear Admiral, a physician, and a top security and health advisor for both Presidents Clinton and George W. Bush, put it simply as the virus's toll in the United States increased: "Delays in response cost lives. When you lose time with an epidemic, it really matters."

But the bungled initial response (or lack of response) was made worse by the Administration's confused and confusing reallocation and abdication of authority to perform or supervise tasks essential to reducing the virus's ravages. That reordering disabled an important mechanism available to the federal government to respond to public health threats—its ability to coordinate the efforts of public and private actions to effectively combat the crisis. And its earlier dismantling of the structure built in the wake of prior outbreaks to respond to the spread of contagious diseases contributed to its inability to craft plan for or implement a coherent and effective response to a virus to which millions of Americans were exposed and which killed hundreds of thousands in the last year of the Trump Administration.

Clearly, the manner in which government is organized to deal with public health crises is not the only determinant of the success or failure of its management of such crises. For example, priority-setting, the adequacy of the resources devoted to the problem, and the commitment and

² See Eric Lipton et al., He Could Have Seen What Was Coming: Behind Trump's Failure on the Virus, N.Y. TIMES (Apr. 11, 2020), https://www.nytimes.com/2020/04/11/us/politics/coronavirus-trump-response.html (noting that it took the president five weeks to take aggressive action to confront the coronavirus danger after the first coronavirus case was identified in the United States). The President also sought to stoke distrust in science and curry favor with segments of the population who were more concerned about restrictions on their autonomy caused by public health directives, in the hopes of boosting his reelection chances. See Paul Waldman, How Trump Will Hijack the Coming Vaccine Wars, WASH. POST (May 19, 2020), https://www.washingtonpost.com/opinions/2020/05/19/how-trump-willhijack-coming-vaccine-debate/ (arguing that a "lack of a vaccine [before the elections in November] will become part of his wide-ranging attack on science and expertise, an argument that casts scientists and public health experts (along with China, and Democrats, and whomever else he's mad at) as the villains of the pandemic story."); see also Michael D. Shear & Sarah Mervosh, Trump Encourages Protest Against Governors Who Have Imposed Virus Restrictions, N.Y. TIMES (Apr. 17, 2020), https://www.nytimes.com/2020/04/17/us/politics/trump-coronavirus-governors.html ("Openly supporting [protestors] who challenge the stay-at-home orders could help the president re-energize the coalition of conservative Republicans and working-class populists who agree with the anti-government sentiment that helped power Mr. Trump's election victory in 2016."); Renée Graham, Trump's Death Cult Presidency, BOSTON GLOBE (May 26, 2020), https://www.bostonglobe.com/2020/05/26/opinion/trumps-death-cult-presidency/ (noting that staunch Trump supporters are willing to die to get back to life as usual, stating that "[p]eople are behaving as if their inalienable rights include ignoring public safety guidelines and endangering others in the middle of a pandemic"). ³ See Nancy Cook, Meredith McGaw & Adam Cancry, What Did Trump Know and When Did He Know It? Inside His Feb. 7 Admission, POLITICO (Sept. 10, 2020), https://www.politico.com/news/2020/09/10/trump-coronavirus-bobwoodward-412222. The Director of the Centers for Disease Control (CDC) understood the dangers posed by the pandemic very early in 2020, and "[t]hroughout January, President Trump received memos from advisors and reports from intelligence agencies, which he may or may not have read, explaining that the COVID-19 outbreak in China was serious and ultimately would pose a tremendous threat to the United States." Michael J. Klarman, Foreword: The Degradation of American Democracy - And the Court, 134 HARV. L. REV. 1, 101 (2020) (adding that "President Trump repeatedly downplayed the threat of the coronavirus").

⁴ Kimberly Dozier & Vera Bergengruen, *Under Fire for Coronavirus Response, Trump Officials Defend Disbanding Pandemic Team*, TIME, Mar. 19, 2020, https://time.com/5806558/administration-officials-fight-criticism/.

⁵ See infra Part IV.

⁶ See infra Part III.

competence of the officials charged with pandemic planning and response all have the capacity to influence a pandemic's impact for better or worse. Organization matters, however, in that poorly organized programs can derail even well-funded and conscientious efforts to stem the adverse social consequences of a public health crisis such as a viral pandemic.

The federal government's planning and response to COVID-19 provide several more general lessons about how to analyze and organize government institutions to better address social problems. How government authority is allocated can profoundly influence the fate of government programs—even though analysis of such structural matters is often subordinated, if it is considered at all, to considerations about the substantive tools of government programs and the procedures used to implement them. The current public health crisis highlights the importance of recognizing that (1) government performs a variety of different functions, (2) authority to address social problems is necessarily allocated along several dimensions of authority, and (3) policymakers should consider differentiating allocations of authority along these dimensions on a function-by-function basis. Moreover, organizational choices should be driven by analysis of the policy tradeoffs that alternative allocations of authority entail. Recognition that these tradeoffs exist and careful consideration of how to resolve them should be critical components of policymakers' deliberations as they design government institutions to prepare for and manage complex social problems like a pandemic.

The opportunity for federal policymakers to engage in the kind of multi-faceted analysis we propose here is likely to be imminent. It seems clear that a reckoning is coming. At local, state, federal, and even international scales, policymakers from different political persuasions are wondering how the structure of inter-governmental organization might have failed in handling⁹ the worst public health crisis in at least a century. Members of Congress have called for hearings like those that occurred after the crisis that began the twenty-first century—the 9/11 attacks—to explore the reasons for the federal government's deficient response to COVID-19. The investigations and analysis conducted by the 9/11 Commission, which Congress created to better prepare for the threat of future terrorist attacks, culminated in a report that recommended structural

⁷ See also infra notes 28-32 and accompanying text.

⁸ See infra Part VI.

⁹ See, e.g., Dan Balz, Crisis Exposes How America Has Hollowed Out Its Government, WASH. POST, May 16, 2020 [hereinafter Balz, Crisis] (discussing debate over whether a new wave of "government reinvention" is an appropriate response to COVID-19 and recommendations that any such reform focus on "finding ways to improve how agencies with confronted the kind of crisis now country"), https://www.washingtonpost.com/graphics/2020/politics/government-hollowed-out-weaknesses/; Mara Liasson, Coronavirus Response Shows How a National Crisis Can Again Transform Politics, NPR, Apr. 22, 2020, https://www.npr.org/2020/04/22/839965140/coronavirus-response-shows-how-a-national-crisis-can-againtransform-politics (arguing that the pandemic could result in an expanded role for the federal government and lead to policy changes that "rearrange traditional political divisions"); Eli Nachmany, Legislative Hurdles and Unintended Consequences: Potential Pitfalls of Vice President Biden's Interest in Cabinet Restructuring, 5/9/2020 U. CHI. L. REV. ONLINE 1, 2 (2020) ("Given the extraordinary spending and policing measures that have characterized state and federal responses to the virus to date, it is not inconceivable that even a divided Congress might rethink the form of America's public health bureaucracy.").

¹⁰ The 1918-1919 influenza pandemic, commonly known as the "Spanish Flu," resulted in the death of 675,000 Americans and over 50 million people worldwide." Georges C. Benjamin, *Pandemic Influenza: Preparing for the Worst*, 58 ADMIN. L. REV. 663, 663 (2006).

¹¹ See infra Part VI.

reforms in the nation's intelligence-gathering apparatus¹² and the adoption of legislation to implement those recommendations.¹³ It seems likely that policymakers will debate whether and how to pursue a similar structural reconfiguration in federal pandemic response authority to address the lessons learned from COVID-19.¹⁴

This article explores how the organization of the Trump Administration's public health authorities adversely affected federal planning and responses to the COVID-19 pandemic. As with most other institutional design assessments, it is not possible to fully cordon off federal pandemic planning and response from the broader social, economic, and regulatory context in which it exists. As the experience with COVID-19 has demonstrated, the ripple effects of a serious viral pandemic can extend into all corners of the nation's—indeed the Earth's—social and economic fabric. Most notably, federal pandemic planning and response will necessarily be affected by, and affect, a range of government action or inaction taken at the local, state, and international levels. Although this article considers some of the interactions among federal and state officials in planning for and responding to the pandemic, it confines its analysis to the impact of the Trump Administration's allocation of authority among federal officials.

Similarly, a capacious conception of pandemic planning and response might extend beyond the article's focus on the direct federal public health efforts to plan for and respond to the pandemic to minimize the number of people who become ill or die from the disease. Pandemic planning and response might be understood as involving allocations of public authority over the entire range of regulatory sectors, such as health care, education, ¹⁵ social welfare, ¹⁶ and financial and other markets. ¹⁷ Accordingly, the range of governmental activities one might consider in evaluating public pandemic management could theoretically include authority at every governmental scale

¹² NAT'L COMM'N ON TERRORIST ATTACKS UPON THE UNITED STATES, THE 9/11 COMMISSION REPORT (2004), https://9-11commission.gov/report/.

¹³ See ALEJANDRO E. CAMACHO & ROBERT L. GLICKSMAN, REORGANIZING GOVERNMENT: A FUNCTIONAL AND DIMENSIONAL FRAMEWORK 149-70 (NYU Press 2019) (discussing the 9/11 Commission's report, the Intelligence Reform and Terrorism Prevention Act, Pub. L. No. 108-458, 118 Stat. 3638 (2004), and how that legislation failed to reorganize intelligence-gathering authority in ways likely to address the problems identified by the 9/11 Commission). ¹⁴ The House passed a bill in April 2020 that would establish a select Subcommittee on the Coronavirus Crisis as an investigate subcommittee of the Committee on Oversight and Reform. H. Res. 935, 116th Cong. (2020), https://www.congress.gov/bill/116th-congress/house-resolution/935. Legislation was also introduced in the Senate that would direct the Director of the Office of Management and Budget to convene an Interagency Task Force to analyze the preparedness of the United States for national pandemics. S. 4204, 116th Cong. (2020), https://www.congress.gov/bill/116th-congress/senate-bill/4204/text;. State legislators have also begun analyzing pandemic response authority. See, e.g., California State Senate, Special Committee on Pandemic Emergency Response, https://www.senate.ca.gov/special-committee-pandemic-emergency-response (listing oversight hearings concerning COVID-19).

¹⁵ See, e.g., Julie M. Donohue & Elizabeth Miller, COVID-19 and School Closures, 324 J. Am. MED. ASS'N 845 (2020), https://jamanetwork.com/journals/jama/fullarticle/2769033.

¹⁶ E.g., U.S. Dep't of Labor, Unemployment Insurance Relief During COVID-19 Outbreak, https://www.dol.gov/coronavirus/unemployment-insurance.

¹⁷ See, e.g., UNITED NATIONS, SHARED RESPONSIBILITY, GLOBAL SOLIDARITY: RESPONDING TO THE SOCIO-ECONOMIC IMPACTS OF COVID-19, at 1 (Mar. 2020), https://unsdg.un.org/sites/default/files/2020-03/SG-Report-Socio-Economic-Impact-of-Covid19.pdf ("The [International Monetary Fund] projects recovery in 2021 only if the world succeeds in containing the virus and take[s] the necessary economic measures."); Int'l Monetary Fund, *Policy Responses to COVID-19: Policy Tracker*, https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19 (last visited June 6, 2020) ("summariz[ing] the key economic responses governments are taking to limit the human and economic impact of the COVID-19 pandemic").

and virtually every regulatory sector. Indeed, we have argued that careful assessment of each of the many overlapping and intersecting regulatory ecosystems is vital for more effective design of public governance. Yet a review of these countless structural components is outside the scope of this brief article. In our view, the article's focus on the manner in which federal planning and response can affect efforts to minimize spread of the disease effectively illustrates the value of the delineated dimensional and functional framework for considering public organizational alternatives. Our hope is that this example can serve as a template and catalyst for other analyses that explore allocational configurations and tradeoffs governing these intersecting areas of governance.

The article is structured as follows. Part II describes why government organization, though not the only variable in determining the fate of government programs, can help accomplish or impede public policy goals. It describes an innovative framework for evaluating alternative structural configurations for government programs. The framework rests on two insights: (1) that governmental authority is organized along three different but interrelated dimensions; and (2) that governmental structures can and often should differ based on the function being performed. Part III explores government reorganizations that occurred in the George W. Bush and Obama Administrations in response to public health crises, as well as the rationale for and impact of those reorganizations.

In Part IV, we describe the Trump Administration's planning for and response to the COVID-19 pandemic, focusing on the nature of each of these functions along each of the three dimensions of authority identified in our framework. Unfortunately, the combination of unnecessary and unhelpful overlapping authority, thoughtless mix of centralized and decentralized authority, and, perhaps most importantly, lack of coordination among multiple agencies and authorities, contributed to a slow and ineffective effort to stem the virus's tide.

Part V identifies six broader lessons about government organization that the United States' COVID-19 experience has provided thus far. It suggests that these lessons should guide policymakers' deliberations in the likely event that they embark upon an effort to reorganize the federal government's public health infrastructure to avoid the organizational mistakes that have plagued the Trump Administration's dismal planning for and response to COVID-19. In particular, it provisionally identifies how a reliance on decentralized, overlapping, and horizontally coordinated federal planning and decentralized, distinct, and hierarchically coordinated federal response actions are likely to better balance the tradeoffs implicated in managing a pandemic than the approach pursued by the Trump Administration.

II. THE IMPORTANCE OF GOVERNMENT ORGANIZATION

It is hard to imagine a better and more compelling illustration of the importance of good government than managing a pandemic. Suddenly, it is blindingly obvious that, while individuals can and must play their part in minimizing risks to the health and the safety of themselves and their families, government action and inter-governmental coordination are essential to an effective

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¹⁸ See CAMACHO & GLICKSMAN, supra note 13, at 234-35.

societal response. ¹⁹ Government can negotiate with foreign governments for samples of the virus to use in developing tests and vaccines. ²⁰ It can provide the crucial information people need to make decisions about how to respond to serious public health risks, such as by social distancing and wearing masks. ²¹ Public authorities can impose essential restrictions on travel and large public gatherings that risk accelerating the virus's spread. ²² They can devote resources to developing better testing and contact tracing methods. ²³ Government can make sure that medical equipment and facilities are available and that treatments are safe and effective. ²⁴

These activities do not (or should not) occur spontaneously. They require the development of comprehensive plans for responding to a pandemic before its appearance, which must then be implemented through response activities when the risk becomes a reality. At the federal level, the aspects of pandemic planning and response with which we are concerned refer to those particular public health activities directed at monitoring, containing, and mitigating the spread of a disease. ²⁵ In this article, federal *pandemic planning* includes those early-stage governmental activities intended to consider, develop a framework for, and/or guide decisions for later governmental

¹⁹ Cf. Lawrence O. Gostin & Benjamin E. Berkman, *Pandemic Influenza: Ethics, Law, and the Public's Health*, 59 ADMIN. L. REV. 121, 153 (2007) ("Cooperation among national authorities and coordination by international bodies is therefore necessary.").

²⁰ See Laura Grebe, Requiring Genetic Source Disclosure in the United States, 44 CREIGHTON L. REV. 367, 373 (2011) (noting that "during the avian influenza (bird flu) outbreak in the early 2000s, many scientists and researchers obtained virus samples from Indonesia and Thailand—two countries on the front line of the growing pandemic . . . and vaccines to fight the avian influenza were quickly developed").

²¹ See, e.g., R. Gregory Evans & Rachel D. Schwartz, *Preparedness and Response Paralysis: Ramifications for Pandemic Planning*, 6 U. St. Thomas L.J. 594, 610 (2009) (noting that public health "planners and the bodies they represent naturally turn to their governments for guidance and information on how to proceed").

²² See Trygve Ottersen et. al., Ebola Again Shows the International Health Regulations Are Broken: What Can Be Done Differently to Prepare for the Next Epidemic?, 42 AM. J.L. & MED. 356, 377 (2016) ("A prevailing recommendation after the H1N1 pandemic, therefore, was to strengthen compliance with the [International Health Regulations'] provisions on travel and trade restrictions."); Mark A. Rothstein, From SARS to Ebola: Legal and Ethical Considerations for Modern Quarantine, 12 IND. HEALTH L. REV. 227, 234 (2015) (endorsing "a federal role in coordination, technical support, and prevention of the interstate and international spread of contagion").

²³ See, e.g., Megan McArdle, *The Government Should Cover Coronavirus Testing. And Conservatives Should Support It.*, WASH. POST, Mar. 3, 2020, https://www.washingtonpost.com/opinions/2020/03/03/government-should-cover-coronavirus-testing-conservatives-should-support-it/.

²⁴ See, e.g., Eileen M. Kane, Achieving Clinical Equality in an Influenza Pandemic: Patent Realities, 39 SETON HALL L. REV. 1137, 1159 (2009) ("[T]the development of a pandemic vaccine is likely to be initiated through a unique and coordinated sequence of events: public health authorities' identification of a consensus virus for vaccine development, followed by vaccine design and clinical testing, and then official purchasing by national governments from commercial manufacturers to build stockpile capacity.").

²⁵ See U.S. DEP'T OF HEALTH AND HUMAN SERV., PANCAP ADAPTED: U.S. GOVERNMENT COVID-19 RESPONSE PLAN 6, 9 (Mar. 13, 2020), https://int.nyt.com/data/documenthelper/6819-covid-19-response-plan/d367f758bec47cad361f/optimized/full.pdf [hereinafter PANCAP]. The Government Accountability Office has described "[t]he mission of the federal response" as being "to leverage available federal resources to prepare for, respond to, and recover from COVID-19," and referred to PanCap's aim as "help[ing] federal departments and agencies to coordinate activities to limit the spread of COVID-19; to mitigate the effect of illness, suffering, and death; and to sustain critical infrastructure and key resources in the United States." U.S. Gov't Accountability Off., COVID-19: Opportunities to Improve Federal Response and Recovery Efforts, GAO-20-265, at 87 (2020), https://www.gao.gov/assets/710/707839.pdf [hereinafter GAO-20-265]. For the scope of this paper, mitigation does not include economic and social engineering such as the provision of stimulus checks or unemployment insurance, which are meant to mitigate the adverse economic impacts of a pandemic, for reasons described above. See supra note 18 and accompanying text

action in preparation for disease or a pandemic.²⁶ Complementarily, federal *pandemic response* refers to the range of activities that occur after advent of (and intended to neutralize) a disease event, ideally in implementation of pandemic planning activities, including monitoring, containment, and the distribution of treatments.²⁷

The success of such government initiatives in managing a pandemic depends on many factors. Of course, the effectiveness of disaster planning and response, and government more generally, is influenced by the interest, competence, and good faith of government personnel;²⁸

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²⁶ When the Department of Health and Human Services (HHS) issued its COVID-19 Response plan (PanCap) in March 2020, it cited several sources of its authority to do so, including the Public Health Service Act, Pub. L. No. 78-410, 58 Stat. 682 (1944) (codified as amended at 42 U.S.C. §§ 201 et seq.; 42 U.S.C. §§ 300hh-1 and 300hh-16). PANCAP, supra note 25, at 6. As of early 2020, that Act required the Secretary of HHS to prepare the National Health Security Strategy and "an accompanying plan for public health preparedness and response." 42 U.S.C. § 300hh-1(a)(1). The Strategy must describe potential emergency health security threats and identify the process for achieving specified "preparedness goals." Id. These goals include (1) integrating public health and private medical capabilities; (2) developing capabilities for disease detection and investigation, disease containment (including capabilities for isolation, quarantine, social distancing, and distribution of health care services and supplies), and risk communication and public preparedness; (3) ensuring coordination of federal, state, local, and tribal planning, preparedness, and response; and (4) improving inter-governmental coordination "to prevent, detect, and respond to outbreaks of . . . zoonotic disease," taking into account human and animal interactions. Id. § 300hh-1(b). "All available evidence for COVID-19 suggests that SARS-CoV-2 has a zoonotic source." World Health Org., Coronavirus Disease 2019 (COVID-19): Situation Report-94 (2020), https://www.who.int/docs/default-source/coronaviruse/situationreports/20200423-sitrep-94-covid-19.pdf; see also John S. MacKenzie & David W. Smith, COVID-19—A Novel Zoonotic Disease: A Review of the Disease, the Virus, and Public Health Measures, 32 ASIAN PAC. J. PUB. HEALTH 145 (2020), https://journals.sagepub.com/doi/pdf/10.1177/1010539520931326. . Cf. CAMACHO & GLICKSMAN, supra note 13, at 27 (defining planning).

²⁷ As described below at notes 146-49 and accompanying text, the White House Coronavirus Task Force created on January 27, 2020 established a Unified Coordination Group (UCG) to serve as "the primary field entity for federal response." GAO-20-265, supra note 25, at 89. The UCG established a series of operational task forces "to provide operational guidance and secure resources to coordinate the whole-of-government response to COVID-19." Id. at 90. The responsibilities of these task forces help define the parameters of the federal government's response to COVID-19, as the term response is used in this article. The task force responsibilities included coordinating testing supply chains and needs; ensuring the availability of protective equipment and other health care workers, facilities, and supplies; developing community mitigation strategies to slow disease spread and reduce morbidity and mortality; establishing baseline understanding of medical countermeasures; providing comprehensive data and analytics to support "evidence-based decisions for COVID-19 response and recovery operations," such as demand for ventilators, personal protective equipment, and therapeutics; and maintaining situational awareness and coordination across federal agencies. Id. at 91-92. We think that actions to monitor, contain, and distribute treatments for the disease encapsulates the UGC's description of the "whole-of-government" response it was charged with leading. For purposes of this article, response does not include research and development activities by government scientists or private pharmaceutical companies pertaining to treatments such as new vaccines, as these activities largely implicate the financing function (and we focus on planning and implementation) and involve public-private relationships (while we confine our analysis largely to intergovernmental allocations of authority).

²⁸ See, e.g., Steve Cogen, COVID-19 Requires a Competent, Professional Federal Government, STATE OF THE PLANET, EARTH INST., COLUMBIA UNIV., Mar. 30, 2020, https://blogs.ei.columbia.edu/2020/03/30/covid-19-requires-competent-professional-federal-government/; Jennifer Rubin, *It's Not About the Size of the Government. It's About Competence.*, WASH. POST, Apr. 20, 2020, https://www.washingtonpost.com/opinions/2020/04/20/its-not-about-size-government-its-about-competence/.

the extent of resources provided;²⁹ the efficient and fair distribution of these resources;³⁰ and the particular forms of substantive strategies³¹ and processes adopted.³² But even the best-designed and well-informed plans are likely to go awry if government is not organized in ways that facilitate rather than hinder public and private capacity to respond to social problems that individuals, businesses, and other private institutions cannot tackle on their own.

In a recent book, ³³ we explained the importance of organization to effective, accountable, and fair government. The case studies we explored revealed that it is important to distinguish among three dimensions of authority—the extent to which government authority is centralized (or decentralized), ³⁴ overlapping (or distinct), ³⁵ and coordinated (or independent). ³⁶ There may be good reasons to prefer organizing government toward one end of a dimension, but countervailing advantages to structuring government toward the other end. For instance, having distinct and clear authority over certain jobs or functions can help reduce the risk of conflicting regulation. ³⁷ For some others, having overlapping authority can help provide a regulatory safety net if one agency or level of government falters. ³⁸ Though there might be an impulse to consolidate authority, there

²⁹ See, e.g., Edgar Walters, Before Texas Can Safely Reopen Its Economy, Health Experts Say These Four Things Must Happen, Tex. Tribune, Apr. 27, 2020, https://www.texastribune.org/2020/04/27/texas-coronavirus-health-experts-say-more-resources-needed-reopen/ (noting opinions of public health experts that successful containment of the virus Texas would require "personnel and lab capacity for testing and contact tracing that is perhaps an order of magnitude greater than what is currently available").

³⁰ See, e.g., Anya van Wagendock, The Government Is Distributing Emergency Covid-19 Supplies. But Some States Are Losing Out., Vox, Mar. 29, 2020, https://www.vox.com/policy-and-politics/2020/3/29/21198704/emergencycovid-19-supplies-fema-states-federal-government. Some sources have reported that the Trump Administration provided preferential treatment in its Covid-19 response to the President's political allies. See, e.g., Jill Colvin, Calling Trump: When Connections Help Steer Virus Supplies, AP. Apr. 11, https://apnews.com/4b50dd9806e6d31607b23dfe38df4408; Jonathan Allen, Phil McCausland & Cyrus Fariyar, Want a Mask Contract or Some Ventilators? A White House Connection Helps, NBC NEWS, Apr. 24, 2020, https://www.nbcnews.com/politics/white-house/political-influence-skews-trump-s-coronavirus-response-n1191236 (discussing "how Trump and his top aides have played favorites in awarding contracts and allocating scarce resources"). Controversy also arose when members of Congress were among those to whom one of the approved COVID-19 vaccines was first made available. See Stephen Loiaconi, Members of Congress Face Backlash as They Get Priority for Scarce Vaccine, 13WHAM ABC NEWS (Dec. 21, 2020), https://13wham.com/news/connect-tocongress/vaccination-of-members-of-congress-spurs-backlash-questions-of-fairness.

³¹ See, e.g., Jonathan Todres, Pamela L. Marcogliese & Laurel R. Hyle, *International Health Law*, 40 INT'L LAW. 453, 455 (2006) (discussing meeting of representatives of over 100 countries under the auspices of the World Health Organization to fashion national and international pandemic preparedness and response plans to address the threat of avian influenza).

³² See, e.g., Lance Gable, Evading Emergency: Strengthening Emergency Responses Through Integrated Pluralistic Governance, 91 OR. L. REV. 375, 390 (2012) (stating that because "public health emergencies are discrete events that present significant threats to health that are distinct from the health challenges endemic to a population . . . [p]rocedures designed to govern the health system and to protect health in everyday circumstances may not be capable of handling the novel challenges posed by a public health emergency").

³³ CAMACHO & GLICKSMAN, *supra* note 13. We provide a partial and preliminary introduction to our framework in Alejandro E. Camacho & Robert L. Glicksman, *Functional Government in 3-D: A Framework for Evaluating Allocations of Government Authority*, 51 HARV. J. ON LEGIS.19 (2014).

³⁴ CAMACHO & GLICKSMAN, *supra* note 13, at 32-37.

³⁵ *Id.* at 38-43.

³⁶ *Id.* at 43-49.

³⁷ *Id*. at 40.

³⁸ *Id*. at 42-42.

are real advantages (in expertise and accountability) to keeping some authority decentralized.³⁹ And keeping authority independent can prevent groupthink, reduce administrative costs, and even reduce the risk of government inaction.⁴⁰ But coordination of governmental authority can be helpful in managing a sudden and multi-faceted problem, like a pandemic, that requires rapid action by multiple public and private entities.⁴¹

To make informed choices about which organizational options to select, policymakers should assess the trade-offs of allocating authority at different points along each dimension and determine which configuration is optimal. These assessments are context-specific, and the configuration of authority should be toggled differently to address different components of the problem. Different types of coordination (varying from mere communication to opportunities to comment, to harmonization, to more hierarchical relationships) can have dissimilar advantages, and different forms can be deployed in diverse contexts. Our book's case studies also highlight the value of varying these allocations of authority for different government functions (such as the planning and implementation functions assessed in this article, but also information distribution, analysis of information, setting regulatory standards, and enforcing those standards), instead of choosing, as is often done, the same structure for each task the government is charged with addressing. In short, it is important to be thoughtful about the organizational choices and their tradeoffs, and to adapt these allocations to account for new information or changes in circumstances. Failing to do so runs the risk that government programs will operate ineffectively or in ways that conflict with social values to which policymakers are committed.

III. PRIOR REORGANIZATIONS IN RESPONSE TO PAST OUTBREAKS

The degree to which the organization of government can facilitate or hinder the pursuit of objectives such as effective and efficient pandemic planning or response should not have come as a surprise in 2020. ⁴⁶ In 2005, President George W. Bush directed his homeland security adviser to

³⁹ *Id.* at 34-35.

⁴⁰ *Id*. at 47-49.

⁴¹ *Id.* at 44-46.

⁴² See id. at 50 (Figure 2.5) (summarizing the different justifications for allocating authority at different ends of each dimension).

⁴³ See id. at 45-46 (describing a spectrum of different forms of coordination and arguing that each form of coordination "will have its own set of advantages and disadvantages").

⁴⁴ See id. at 26 (Figure 1.2) (listing categories of functional jurisdiction).

⁴⁵ See id. at 25-30.

⁴⁶ For discussion of lessons learned from earlier public health crises, including the post-World War I Spanish flu pandemic, see Wendy E. Parmet, *Pandemics, Populism and the Role of Law in the H1N1 Vaccine Campaign*, 4 St. Louis U.J. Health L. & Pol'y 113, 115-24 (2010); Jeff Thaler, *2020 Vision: What Can a Governor Do When the 2nd COVID-19 Surge Comes?*, AMER. Const. Soc'y Expert Forum (May 19, 2020), https://www.acslaw.org/expertforum/2020-vision-what-can-a-governor-do-when-the-2nd-covid-19-surge-comes/. The Disaster Relief Act Amendments of 1974, Pub. L. No. 93-288, § 201(a), 88 Stat. 143, 145, authorized the President "to establish a program of disaster preparedness" that would include "preparation of disaster preparedness plans for mitigation, warning, emergency operations, rehabilitation, and recovery," and "coordination of Federal, State, and local preparedness programs." The statute defined a disaster primarily in terms of weather-related events, but also included "other catastrophe[s]." *Id.* § 102(2) (codified at 42 U.S.C. § 5122) (defining a "major disaster"). The Trump Administration's 2019 PanCap plan cited the 1974 Act as a source of authority. *See* PANCAP, *supra* note 25, at 6.

develop a national pandemic strategy after reading a book about the flu pandemic of 1918.⁴⁷ The strategy was designed to address both planning (or preparedness) and response. It was comprised of three "pillars": preparedness and communication, surveillance and detection, and response and containment.⁴⁸ The planning components included: (1) working with multilateral health organizations such as the World Health Organization to support the development of pandemic response plans and (2) working with states and localities to develop medical surge capacity plans and integrate the private sector and critical infrastructure entities into planning efforts.⁴⁹ The response and containment component included (1) specified measures to slow or limit the spread of the outbreak, (2) activation of plans to distribute medical countermeasures, (3) assisting the flow of public health and medical personnel and medical equipment to areas of need, (4) encouraging the development of "coordination mechanisms" across American industries, (5) activation of contingency plans, (6) ensuring effective risk communication to the public, and (7) working with state and local government to assure the safety of the food supply.⁵⁰ Indeed, the Bush strategy repeatedly emphasized the importance of coordination within and between governments and between governments. and the private sector with respect to both planning⁵¹ and response.⁵²

The next year, Congress enacted the Pandemic and All-Hazards Preparedness Act (PAHPA).⁵³ Like the Bush strategy, the 2006 Act recognized the need for federal interagency coordination. It charged the Secretary of HHS with leading all federal public health and medical response to public health emergencies and incidents covered by the National Response Plan developed pursuant to the Homeland Security Act of 2002.⁵⁴ PAPHA directed the Secretary to collaborate with various cabinet heads to establish an interagency agreement under which the Secretary would assume "operational control of emergency public health and medical response assets, as necessary, in the event of a public health emergency."⁵⁵ The Act also created a new

⁴⁷ Dan Balz, America Was Unprepared for a Major Crisis. Again., WASH. POST, Apr. 4, 2020, https://www.washingtonpost.com/graphics/2020/politics/america-was-unprepared-for-a-major-crisis-again/; Angela Marino, The Cost of a Countermeasure: The Expansive Liability Protection of the Public Readiness and Emergency Preparedness Act of 2005, 20 U. FLA. J.L. & PUB. POL'Y 199, 199 (2009).

⁴⁸ HOMELAND SECURITY COUNCIL, NATIONAL STRATEGY FOR PANDEMIC INFLUENZA 3 (2005), https://www.cdc.gov/flu/pandemic-resources/pdf/pandemic-influenza-strategy-2005.pdf; see also Michelle A. Daubert, Comment, Pandemic Fears and Contemporary Quarantine: Protecting Liberty Through A Continuum of Due Process Rights, 54 BUFF. L. REV. 1299, 1345 (2007) (describing the three "pillars" of the Bush strategy).

⁴⁹ Id. at 4.

⁵⁰ *Id.* at 8-9. These components of the Bush response strategy are similar to the elements of what we define as pandemic response in this article – actions to (1) monitor, (2) contain (through mechanisms such as distribution of medical equipment (including testing devices and personal protective equipment) and communication about the incidence and location of infections and ways to halt its spread (including social distancing and mask wearing), and (3) distribute treatments for the disease. *See supra* notes 25-27 and accompanying text.

id. at 2 ("Preparing for a pandemic requires the leveraging of all instruments of national power, and coordinated action by all segments of government and society."); see also id. at 4 (noting the importance of coordinated planning), 5 (establishing goal of facilitating coordination of vaccination manufacturing efforts); id. at 11 (recommending that states and localities coordinate crisis communication plans).

⁵² *Id.* at 8 (noting intention to "develop a coalition of strong partners to coordinate actions to limit the spread of a virus with pandemic potential beyond the location where it is first recognized in order to protect U.S. interests abroad"); *id.* at 9 (referring to the need to coordinate risk communication to inform the public and mitigate panic in the midst of a pandemic); *id.* at 10 (establishing as a federal responsibility coordinating the sitri8bution of disease countermeasures "in concert with states and other entities").

⁵³ Pub. L. No. 109-417, 120 Stat. 2832 (2006).

⁵⁴ *Id.* § 101(2) (codified at 42 U.S.C. § 300hh(a)).

⁵⁵ *Id.* (codified at 42 U.S.C. § 300hh(b)).

position within HHS, the Assistant Secretary for Preparedness and Response (ASPR), whose responsibilities include coordination with other federal officials "to ensure integration of Federal preparedness and response activities for public health emergencies," and to coordinate with state, local, and tribal public health officials "to ensure effective integration of Federal public health and medical assets" during such an emergency. Further, PAPHA provided that every four years, beginning in 2009, the HHS Secretary would prepare and submit to relevant congressional committees "a coordinated strategy (to be known as the National Health Security Strategy) . . . and an accompanying implementation plan for public health emergency preparedness and response." ⁵⁷

The outbreak of the Ebola virus in 2014 increased attention on the importance of government organization, and particularly the critical role of coordination, in promoting effective responses to global health threats. In February 2014, then-Secretary of Health and Human Services ("HHS") Kathleen Sebelius and the Director-General of the World Health Organization announced the formation of the Global Health Security Agenda ("GHSA"). Their goal was to accelerate international implementation of the 2005 International Health Regulations, which, among other things, address public health preparedness and response capacities concerning public health threats. Later that year, the Congressional Research Service ("CRS") identified issues for congressional consideration relating to the GHSA. It noted that there was then no formal mechanism for convening interagency meetings about implementation of the GHSA. CRS therefore urged legislators to consider "What agency, if any, should coordinate these efforts to avoid duplication of efforts and ensure efficient and effective use of U.S. resources?"

Consistent with the GHSA's goals, President Obama decided to enhance the government's pandemic management capacity. Some, such as Senator John McCain, had criticized the Obama Administration for having no one in charge of coordinating the various independent and at times overlapping federal authorities involved in Ebola response management and for failing to

⁵⁶ *Id.* § 101(3) (codified at 42 U.S.C. § 300hh-10(a), (b)(4)).

⁵⁷ *Id.* § 103 (codified at 42 U.S.C. § 300hh-1(a)(1)).

⁵⁸ See Tsung-Ling Lee, Making International Health Regulations Work: Lessons from the 2014 Ebola Outbreak, 49 VAND. J. TRANSNAT'L L. 931, 937 (2016) (arguing that "the international control of infectious disease is essentially a coordination game," and using the Ebola crisis as an example). The World Health Organization, for example, established a Review Committee to identify weaknesses in global planning and responses to international health emergencies. *Id.* at 937 & n.17.

⁵⁹ See Lisa Monaco, Making the World Safer from Pandemic Threats: A New Agenda for Global Health Security (Feb. 13, 2014), https://obamawhitehouse.archives.gov/blog/2014/02/13/making-world-safer-pandemic-threats-new-agenda-global-health-security. The Agenda was an international effort that was designed to enhance capacity, particularly in resource-poor countries, "to prevent, detect, and respond to outbreaks of infectious disease threats." *Id.*; Congressional Research Serv., *The Global Health Security Agenda (2014-2019) and International Health Regulations (2005)* 1 (Dec. 19, 2014), https://crsreports.congress.gov/product/pdf/IF/IF10022 [hereinafter *Global Health Security Agenda*].

WORLD HEALTH ORG., INTERNATIONAL HEALTH REGULATIONS (2d ed. 2005), /www.who.int/ihr/publications/9789241596664/en/.

⁶¹ Global Health Security Agenda, supra note 59, at 2. Anticipated preparedness and prevention measures included improving immunization capacity, improving diseases surveillance and monitoring systems, and developing and disseminating diagnostic tools. To enhance effective outbreak responses, the Agenda aimed at "creating an interconnected global network of Emergency Operations Centers, establishing rapid response teams worldwide, operating a global reagent resource, and developing response communications and crisis planning and management tools." *Id.*

implement measures such as imposing travel bans and quarantines.⁶² According to the Center for Strategic and International Studies (CSIS),⁶³ "in the aftermath of the slow, uncoordinated, and resource-intensive response to the Ebola crisis in West Africa, the White House [National Security Council (NSC)] staff created the Global Health Security and Biodefense Directorate," which was "[d]esigned to plan for and oversee rapid, efficient, government-wide responses to global health security threats."⁶⁴ The Directorate would coordinate both pandemic planning and response at all levels of government.⁶⁵

According to Beth Cameron, who headed the Directorate as the Senior Director for Global Health and Biodefense, the Directorate's mission, was "to get ahead: to accelerate the response, empower experts, anticipate failures, and act quickly and transparently to solve problems." It served as an "early warning system for impending pandemics." The Directorate reported to a senior-level response coordinator on the NSC staff, the National Security Adviser, and the homeland security adviser. 88

⁶² Deirdre Shesgreen, 'Gross Misjudgment': Experts Say Trump's Decision to Disband Pandemic Team Hindered Coronavirus Response, USA TODAY, Mar. 18, 2020, https://www.usatoday.com/story/news/world/2020/03/18/coronavirus-did-president-trumps-decision-disband-global-pandemic-office-hinder-response/5064881002/.

At the same time, President Obama issued an executive order to implement the GHSA. Exec. Order No. 13747, Advancing the Global Health Security Agenda to Achieve a World Safe and Secure from Infectious Disease Threats, 81 Fed. Reg. 78701 (Nov. 9, 2016). The order created a GHSA Interagency Review Council whose responsibilities included providing "policy-level guidance to participating agencies on GHSA goals, objectives, and implementation," and facilitating "interagency, multi-sectoral engagement to carry out GHSA implementation." *Id.* § 2(b)(i). The Obama Administration recognized the importance of coordination across the federal government to deal with both domestic and international aspects of pandemic planning and response, directing the federal agencies that comprised the Council to "coordinate with other agencies that are identified in this order to satisfy programmatic goals, and further facilitate coordination of country teams, implementers, and donors in host countries." *Id.* § 3(a)(vi). ⁶⁵ *See* Emily Berman, *The Roles of the State and Federal Governments in A Pandemic*, 11 J. NAT'L SECURITY L. & POL'Y 61, 78 (2020) (emphasis added) ("When the Obama Administration's experience with Ebola in 2014 drove home the gravity and immediacy of pandemic threats, it established a Directorate for Global Health Security and Biodefense on the National Security Council (NSC), so that a permanent cadre of experts could *both plan for and implement a response to emergencies* such as the one we currently face.").

[&]quot;[T]he Center for Strategic and International Studies (CSIS) is a bipartisan, nonprofit policy research organization dedicated to providing strategic insights and policy solutions to help decisionmakers chart a course toward a better world." Center for Strategic and International Studies, ⁶³ Ending the Cycle of Crisis and Complacency in U.S. Global Health Security: A Report of the CSIS Commission on Strengthening America's Health Security ii (2019), https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/191122_EndingTheCycle_GHSC_WEB_FULL_11.22.pdf [hereinafter CSIS Cycle of Crisis].

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Gain the security of the cycle of Crisis of Coming—And Trump Isn't Ready, the Atlantic, Jan. 30, 2020, https://www.theatlantic.com/ideas/archive/2020/01/now-trump-needs-deep-state-fight-coronavirus/605752/; NSC Directorate for Global Health Security and Biodefense Dissolved, https://climate.law.columbia.edu/content/nsc-directorate-global-health-security-and-biodefense-dissolved (last visited May 24, 2020); Reuters Examines Changes To CDC, NSC Epidemiology, Pandemic Response Staff Under Trump Administration, Mar. 26, 2020, https://www.kff.org/news-summary/reuters-examines-changes-to-cdc-nsc-epidemiology-pandemic-response-staff-under-trump-administration/.

⁶⁶ Beth Cameron, *I Ran the White House Pandemic Office. Trump Closed It.*, WASH. POST, Mar. 13, 2020, https://www.washingtonpost.com/outlook/nsc-pandemic-office-trump-closed/2020/03/13/a70de09c-6491-11ea-acca-80c22bbee96f story.html.

⁶⁷ Haley Sweetland Edwards, *The Trump Administration Fumbled Its Initial Response to Coronavirus. Is There Enough Time to Fix It?*, TIME, Mar. 19, 2020, https://time.com/5805683/trump-administration-coronavirus/.

The Directorate's ability to manage a pandemic response was never tested because the Trump Administration disbanded it before the outbreak of COVID-19.69 But the Obama Administration's 69-page playbook suggests that had the NSC's Directorate been in existence, it would have been empowered and fairly well poised to lead a coordinated effort to respond to the pandemic. 70 The Playbook included a "decision-making rubric" for domestic assessment and response that committed the U.S. government to "use all powers at its disposal to prevent, slow, or mitigate the spread of an emerging infectious disease threat" by limiting spread of disease, mitigating the impact illness and death, and sustaining critical infrastructure and key domestic resources.⁷¹ The NSC (acting through the Directorate) would "serve as an information conduit for the Executive Office of the President (EOP) and will coordinate interagency policy discussions and decisions."⁷² Notably, and in contrast to the Trump Administration's approach, ⁷³ the Playbook stated that "[w]hile States hold significant power and responsibility related to public health response . . . , the American public will look to the U.S. Government for action when multi-state or other significant public health events occur."⁷⁴ The Playbook included a detailed grid setting forth the somewhat distinct and somewhat overlapping responsibilities of various federal agencies with respect to pathogen identification, initial response activation, resource distribution, and longterm recovery operations.⁷⁵

A review of the Obama Directorate's actions between 2016 and 2018 also suggest that it had the potential to head up a successful effort. Beth Cameron described the Directorate's role as coordinating both preparations for a pandemic and coordinating "a robust and seamless domestic and global response" when a pandemic developed. Cameron highlighted the capacity of the Directorate "to prepare the United States and the world for the next pandemic, including by developing incentives for global leaders and governments to rapidly finance and fill identified gaps." The Directorate was charged with coordinating several important governmental functions, including information gathering, funding, and planning. Had a pandemic developed during the Obama Administration, the Directorate would also have been responsible for coordinating implementation of responses at all governmental levels. For example, it "would have been responsible for coordinating the efforts of multiple federal agencies to make sure the government was backstopping testing capacity, devising approaches to manufacture and avoid shortages of personal protective equipment, strengthening U.S. lab capacity to process covid-19 tests, and

⁶⁹ See infra notes 88-103 and accompanying text.

⁷⁰ See PLAYBOOK FOR EARLY RESPONSE TO HIGH-CONSEQUENCE EMERGING INFECTIOUS DISEASE THREATS AND BIOLOGICAL INCIDENTS 4, https://assets.documentcloud.org/documents/6819268/Pandemic-Playbook.pdf [hereinafter PLAYBOOK] ("[T]he National Security Council (NSC) and its subordinate policy committees [including the Principals Committee (PC), the Deputies Committee (DC), and the Interagency Policy Committees (IPC)] will serve as the principal forum for consideration of national security policy issues, including emerging infectious disease-related national security threats."); id. at 12 ("The U.S. government international and domestic responses to evolving public health crises should be coordinated, as appropriate, through the NSC's coordination mechanisms.").

 $^{^{71}}$ *Id*. at 31.

⁷² Id

⁷³ See infra notes 88-103 and accompanying text.

⁷⁴ PLAYBOOK, *supra* note 70, at 31.

⁷⁵ *Id.* at 32-40.

⁷⁶ Cameron, *supra* note 66.

⁷⁷ *Id.*; see also Klarman, supra note 3, at 100 (describing the Directorate's mission as "preventing or preparing for the next pandemic").

⁷⁸ See Edwards, supra note 67.

expanding the health-care workforce."⁷⁹ Before its elimination, the Directorate began to implement its planning mission. For example, it coordinated efforts by federal agencies to monitor evolving outbreaks of diseases such as yellow fever and H7N9 influenza so that it could trigger alarms if an outbreak seemed problematic. It also coordinated international funding, providing financing to fill gaps in other nations' preparedness or response capacities. ⁸⁰

In the wake of the Ebola outbreak, Congress also recognized, and acted on, the need for a coordinated government response to global public health threats. At the end of 2016, Congress enacted the National Defense Authorization Act for Fiscal Year 2017, which directed the Secretaries of Defense, HHS, Homeland Security, and Agriculture to jointly develop a national biodefense strategy and associated implementation plan. The required contents of the strategy and plan include (1) "a description of the roles and responsibilities of executive agencies, including internal and external coordination procedures, in identifying and sharing information" about terrorist use of biological agents and weapons, and biological outbreaks; (2) an articulation of interagency capabilities and "whole-of-Government" activities required to support the strategy; (3) recommendations for strengthening biodefense capabilities, authorities, and command structures; and (4) improving and formalizing interagency coordination to provide "a robust national biodefense." The Act mandated submission by the Secretaries of the strategy and plan to appropriate congressional committees. 83

Perhaps different or additional organizational choices could have improved on the framework created by the Obama Administration and Congress. But the organizational changes they endorsed all reflected an understanding, which has since been reinforced by the assessment from both former Obama and Trump Administration public health experts, that coordination of decentralized and largely independent federal and state authority is an indispensable element of

⁷⁹ Cameron, *supra* note 66; *see also id.* ("It would identify needs among state and local officials, and advise and facilitate regular, focused communication from federal health and scientific experts to provide states and the public with fact-based tools to minimize the virus's spread. . . . It would be in charge of sharing information and coordinating our public health and humanitarian response with partners and allies.").

80 *Id.*

⁸¹ Pub. L. No. 114-238, § 1086, 130 Stat. 2000, 2423-24 (codified at 6 U.S.C. § 104). The Trump Administration published the documents required by the 2017 Act about a year after the statutory deadline, perhaps losing valuable time in preparing for the crisis about to occur. The statutory deadline for submission of the strategy to Congress was 275 days after enactment of the 2017 Act (i.e., July 2017). The Administration released the strategy in September 2018. *See* Presidential Memorandum on the Support for National Biodefense (Sept. 18, 2018), https://www.whitehouse.gov/presidential-actions/presidential-memorandum-support-national-biodefense/; NATIONAL BIODEFENSE STRATEGY (2018), https://www.whitehouse.gov/wp-content/uploads/2018/09/National-

NATIONAL BIODEFENSE STRATEGY (2018), https://www.whitehouse.gov/wp-content/uploads/2018/09/National-Biodefense-Strategy.pdf. National Security Presidential Memorandum 14, issued a month after the release of the Strategy, ordered agencies, under the leadership of the Assistant to the President for National Security Affairs, "to ensure an integrated, comprehensive approach" and to "coordinate and manage biodefense activities in support of the broader biodefense enterprise." Posting of the National Security Presidential Memorandum 14, "Support for National Biodefense," 83 Fed. Reg. 52841, 52842 (Oct. 18, 2018). Among other things, it also directed all federal agencies to coordinate biodefense policy formulation and information dissemination among themselves and non-federal entities, and to "monitor, evaluate, and hold their agencies accountable for implementation of the Strategy," and delegated to the Secretary of HHS the task of ensuring that appropriate resources are provided to a Biodefense Coordination Team located within HHS. *Id.* Unfortunately, as indicated below, the implementation of those coordination mandates left much to be desired.

⁸² Pub. L. No. 114-238, § 1086(b).

⁸³ *Id.* § 1086(c).

effective government planning for and responses to wide-ranging public health crises. ⁸⁴ Designed well, coordination can (1) promote more efficient response efforts by pooling resources and expertise, (2) enhance accountability by identifying and assigning governmental roles to reflect differing expertise and capacities and avoid duplication of effort, and (3) harmonize the efforts of different governmental bodies to foster synergies and avoid conflicts. ⁸⁵ Unfortunately, the striking lack of coordination in the Trump Administration's response to COVID-19 squandered all of these opportunities.

IV. THE TRUMP ADMINISTRATION: DELAY, DISBANDMENT, CONSOLIDATION, AND TRIPLICATE AUTHORITY

As Part II above indicates, government authority to deal with social problems such as public health emergencies is necessarily comprised of one or more governmental functions allocated along each of three different dimensions. Ref. Unfortunately, the Trump Administration's planning for and response to the COVID-19 pandemic was structured poorly along each of these dimensions. It was characterized by (1) an illogical combination of more centralized planning and decentralized response authority that failed to leverage the beneficial aspects of either; (2) particularly for pandemic response, a toxic mix of haphazard overlap and poorly delineated authority to different policymakers within the executive branch; and (3) a crippling lack of coordination in planning and response, both within the federal government and between the federal government, state and local governments and the private sector. The upshot was a delayed, confusing, and ineffective effort to combat the virus and hundreds of thousands of potentially avoidable illnesses and deaths. Ref.

A. Disbandment and Consolidation of Planning and Response

The Trump Administration took steps along the centralization-decentralization dimension that adversely affected its ability to plan for and respond to COVID-19. In the context of pandemic planning, the Administration dissolved an entity whose mission was focused on pandemic planning

⁸⁴ See Michael Greenberger, The Alfonse and Gaston of Governmental Response to National Public Health Emergencies: Lessons Learned from Hurricane Katrina for the Federal Government and the States, 58 ADMIN. L. REV. 611, 612 (2006) ("The recent devastation and destruction by Hurricane Katrina in August 2005 in the Gulf Coast exemplifies the critical need for better federal, state, and local government coordination during a catastrophic public health emergency. Relying on only one or two of these governmental entities, or an uncoordinated response by all three, to spearhead disaster relief on a national scale only exacerbates the disaster, costing thousands of lives and billions of dollars."); Elisabeth Belmont et al., Emergency Preparedness, Response & Recovery Checklist: Beyond the Emergency Management Plan, 37 J. HEALTH L. 503, 508 (2004) (urging coordination among public health agencies and between such agencies and private health care providers, and suggesting "ad hoc restructuring of an organization around functional (rather than administrative) lines to better meet the demands of a given emergency situation"); cf. Lori L. Buchsbaum, The U.S. Public Health Response to Bioterrorism: Need for A Stronger Legislative Approach, 7 MICH. St. U. J. MED. & L. 1, 15 (2002) (emphasizing "the importance of coordination among states and between state and federal governments in facing threats such as bioterrorism").

⁸⁵ See CAMACHO & GLICKSMAN, supra note 13, at 44-45.

⁸⁶ Allocations may but need not differ for various government functions. In Part V below, we suggest that policymakers would be well advised to consider differentiating authority along each of the dimensions for two different functions relating to pandemic management – planning and response (or plan implementation).

⁸⁷ See James Glanz & Campbell Robertson, Lockdown Delays Cost at Least 36,000 Lives, Data Show, N.Y. TIMES, May 20, 2020, https://www.nytimes.com/2020/05/20/us/coronavirus-distancing-deaths.html (describing how growth of the pandemic could have been better controlled with a more timely and effective federal response).

and response and ostensibly merged its responsibilities into an entity with a broader set of responsibilities, thus diluting the attention that might otherwise have been devoted to pandemic management. Second, the Administration largely defaulted on pandemic response, resulting in a decentralized effort led by states and localities that cried out for but that was lacking federal coordination.

1. Centralization and Dilution of Federal Planning

In March 2018, President Trump appointed John Bolton as head of the National Security Council, replacing H.R. McMaster. ⁸⁸ The day after Bolton took over, National Security Advisor Thomas Bossert resigned at Bolton's request. ⁸⁹ Bossert had urged greater investment ⁹⁰ in global health security ⁹¹ and called for "a comprehensive biodefense strategy against pandemics and biological attacks." ⁹² Within weeks, Bolton dismissed Rear Admiral Timothy Ziemer, who had taken over Beth Cameron's position as head of the Global Health Security and Biodefense Directorate in 2017 and was the person responsible for overseeing preparation of the biodefense strategy required under the 2017 Defense Authorization Act. ⁹³

But Bolton did more than just reshuffle personnel. He also quickly disbanded the Directorate itself. ⁹⁴ Bolton believed that the NSC's organizational chart made little sense, that it created too many conflicts among its components, and that the NSC staff had grown too large. ⁹⁵ Some of the Directorate's authority was shifted to a now-consolidated counter-proliferation and biodefense directorate. The refashioned Directorate's jurisdiction fused weapon arms control and nonproliferation, anti-terrorism matters, and global health and biodefense. ⁹⁶ The Trump Administration alleged that the changes were meant to "streamline" a "bloated" and leak-prone

⁸⁸ Cristiano Lima & Matthew Nussbaum, *John Bolton to Replace H.R. McMaster as National Security Adviser*, POLITICO, Mar. 22, 2018, https://www.politico.com/story/2018/03/22/john-bolton-national-security-adviser-hrmcmaster-trump-481721.

⁸⁹ Josh Dawsey, Greg Jaffe & Ellen Nakashima, *White House Homeland Security Adviser Tom Bossert Resigns*, WASH. Post, Apr. 10, 2018, https://www.washingtonpost.com/politics/white-house-homeland-security-adviser-resigns-amid-continued-turnover-in-trump-administration/2018/04/10/15db518a-3ccb-11e8-a7d1-e4efec6389f0 story.html.

⁹⁰ Lauren Weber, *Sudden Departure of White House Global Health Security Head Has Experts Worried*, HUFFPOST, May 9, 2020, https://www.huffpost.com/entry/tim-ziemer-global-health-security-leaves n 5af37dfbe4b0859d11d02290.

⁹¹ Jonathan Landy, *White House Developing Comprehensive Biosecurity Strategy: Official*, REUTERS, July 20, 2017, rs.com/article/us-usa-security-biodefense/white-house-developing-comprehensive-biosecurity-strategy-official-idUSKBN1A52HZ.

⁹² Partly False Claim: Trump Fired Entire Pandemic Response Team in 2018, REUTERS, Mar. 25, 2020, uters.com/article/uk-factcheck-trump-fired-pandemic-team/partly-false-claim-trump-fired-pandemic-response-team-in-2018-idUSKBN21C32M [hereinafter Partly False Claim].

⁹³ Ed Yong, *Ebola Returns Just as the White House Loses Its Top Biodefense Expert*, THE ATLANTIC, May 11, 2018, https://www.theatlantic.com/health/archive/2018/05/white-house-loses-global-health-security-lead-as-a-new-ebola-outbreak-hits/560195/.

⁹⁴ See CSIS, CYCLE OF CRISIS, supra note 63, at 17; Tal Axelrod, Bolton Defends Decision to Shutter NSC Pandemic Office, THE HILL, Mar. 14, 2020, https://thehill.com/homenews/administration/487581-bolton-defends-decision-to-shutter-nsc-pandemic-office.

⁹⁵ Glenn Kessler & Meg Kelly, *Was the White House Office for Global Pandemics Eliminated?*, WASH. POST, Mar. 20, 2020, https://www.washingtonpost.com/politics/2020/03/20/was-white-house-office-global-pandemics-eliminated/.

⁹⁶ See CSIS, CYCLE OF CRISIS, supra note 63, at 17.

NSC.⁹⁷ Some officials also justified the changes⁹⁸ as an effort to "combine a handful of offices with similar mission sets."⁹⁹ One asserted (with no substantiation) that the combined directorate was an improvement because it would allow for the "commingling" of ostensibly related expertise. ¹⁰⁰ It has since become clear, however, that the decision to eliminate the pandemic Directorate had considerable downsides.

The Trump Administration's merger of the Obama Directorate into an entity with responsibilities relating to weapons of mass destruction and terrorist threats moved federal pandemic planning in the direction of greater federal centralization of authority to tackle a broad range of crisis management issues. This move to increase centralization needlessly sacrificed core benefits of decentralization, which include leveraging the expertise, diversity, and accountability advantages of decentralized authorities while maintaining coherent implementation. In contrast, combining epidemic prevention and response with managing matters relating to weapons of mass destruction and terrorism threats runs the risk of subordinating concerns about the risks associated with naturally spread diseases to preparation for intentional attacks. ¹⁰¹ Indeed, some observers saw the dismantling of the Obama pandemic response Directorate as a signal that its work was not a priority of the Trump Administration. ¹⁰² One expert referred to the Trump Administration's "streamlining" of the NSC directorates as a "decapitation" and "dilution" of the White House's prior focus on pandemic threats. ¹⁰³

Others with experience or expertise on pandemic responses expressed similar concerns, concluding that the disbanding of the pandemic-specific unit within NSC was apt to hinder the United States' response to COVID-19. In its 2019 report on *Strengthening America's Health Security*, CSIS, a bipartisan, nonprofit policy research organization, identified as its first critical reform recommendation for strategic investment in pandemic prevention, protection and resilience the restoration of "health security leadership" at the NSC. Likewise, in February 2020, thirty members of the Senate wrote a letter to the Assistant to the President on National Affairs urging the President to fill the vacancy resulting from Admiral Ziemer's departure.

Perhaps the most revealing comment, however, came from Dr. Anthony Fauci, the Director of the National Institutes of Health's National Institute of Allergy and Infectious Diseases, and one of the main faces of the Trump Administration's COVID-19 response, at least until the President

⁹⁷ Klain, *supra* note 64.

⁹⁸ Partly False Claim, supra note 92.

⁹⁹ Yong, *supra* note 93.

¹⁰⁰ Tim Morrison, *No, the White House Didn't 'Dissolve' Its Pandemic Response Office. I Was There.*, WASH. POST, Mar. 16, 2020, https://www.washingtonpost.com/opinions/2020/03/16/no-white-house-didnt-dissolve-its-pandemic-response-office/.

¹⁰¹ Cf. Hunter Knapp, Managing an Administrative Emergency: Establishing FEMA As an Independent Agency, 31 COLO. NAT. RESOURCES, ENERGY & ENVTL L. REV. 231, 241 (2020) (arguing that movement of the Federal Emergency Management Agency into the Department of Homeland Security after 9/11 subordinated the role of natural disaster preparedness, which "proved costly when Hurricane Katrina struck the Gulf Coast in 2005").

¹⁰² Dozier & Bergengruen, *supra* note 4.

¹⁰³ Shesgreen, *supra* note 62.

¹⁰⁴ Laura Strickler & Ken Dilanian, *Trump Cuts to National Security Staff May Hurt Coronavirus Response, Former Officials Say*, NBCNEWS, Feb. 26, 2020, https://www.nbcnews.com/health/health-news/trump-cuts-national-security-staff-may-hurt-coronavirus-response-say-n1143656.

¹⁰⁵ CSIS, CYCLE OF CRISIS, *supra* note 63, at x, 17.

became disillusioned with his prominence and advice. ¹⁰⁶ Dr. Fauci admitted that "It would be nice if [the Obama Directorate disbanded by John Bolton] was still there." ¹⁰⁷ The Trump Administration later implicitly acknowledged its mistake by initiating efforts to reestablish a dedicated pandemic response unit. It considered locating the unit at the State Department rather than the NSC, perhaps to reduce the perception that it understood it had erred in disbanding the Directorate in the first place and was simply reverting to the Obama Administration's approach. ¹⁰⁸ After his election, incoming President Biden's transition team issued a *Plan to Combat Coronavirus (COVID-19)* that promised to "[i]mmediately restore the White House National Security Council Directorate for Global Health Security and Biodefense, which was established by the Obama-Biden Administration and eliminated by the Trump Administration in 2018."

The diminished profile and responsibility of the NSC, which housed the consolidated directorate that emerged from John Bolton's reorganization efforts, also took its toll. For example, NSC sponsored the first interagency meeting on the outbreak in mid-January 2020, which it followed up two weeks later with a meeting of the NSC deputies committee. Whatever recommendations emerged from those meetings seem to have gotten lost amid the many other voices speaking for the Administration and crafting its pandemic response policy.

2. Federal Abdication in Pandemic Response

In a different sense, the Trump Administration's approach was also more decentralized than the Obama Administration's strategy: federal leadership of state and local government

¹⁰⁶ See, e.g., Yasmeen Abutalenb et al., The Inside Story of How Trump's Denial, Mismanagement and Magical Thinking Led to the Pandemic's Dark Winter, WASH. POST (Dec. 19, 2020), https://www.washingtonpost.com/graphics/2020/politics/trump-covid-pandemic-dark-winter/ (noting that "[t]he president and some on his team were also increasingly frustrated with Fauci, who frequently appeared in the media offering what they viewed as an overly alarmist public health message").

¹⁰⁷ Dozier & Bergengruen, *supra* note 4.

¹⁰⁸ See Kylie Atwood & Nicole Gaouette, Trump Administration Moves Ahead with Plan to Open New Pandemic Office as Coronavirus Crisis Intensifies, CNN, July 2, 2020, https://www.cnn.com/2020/07/02/politics/trump-state-dept-new-pandemic-office/index.html ("Former officials say the administration could have been better prepared for the pandemic if it had left the original office in place instead of trying to replicate it even as the virus gained new ground."). Lisa Monaco, who, as President Obama's National Security Adviser, oversaw the creation of the NSC's directorate, explained that placing the unit within the NSC facilitated policy coordination across the entire government. She characterized the Trump Administration's plan to reestablish the unit as "a recognition that you do indeed need a specific identified place to constantly be focusing on pandemic response," but she feared that placing it in the State Department rather than under White House control would replicate the failure of the Trump HHS task force under Secretary Azar to achieve effective government-wide coordination. Id. See also Michael Igoe, Exclusive: State Department Makes Bid for U.S. Global Pandemic Response Powers, DEVEX, May 22, 202, https://www.devex.com/news/exclusive-state-department-makes-bid-for-us-global-pandemic-response-powers-97315 (discussing proposed initiative, the President's Response to Outbreaks, to be run by the State Department).

The Biden Plan to Combat Coronavirus (COVID-19) and Prepare for Future Global Health Threats, https://joebiden.com/covid-plan/ [hereinafter Biden Plan]. Moreover, Biden chose Beth Cameron, who as head of the Directorate wrote the Obama Administration's pandemic playbook, to return as the head of the restored Directorate. Karen DeYoung, *Biden's NSC to Focus on Global Health, Climate, Cyber and Human Rights, as Well as China and Russia*, WASH. POST (Jan. 8, 2021), https://www.washingtonpost.com/national-security/biden-nsc-covid-climate-cyber-china/2021/01/08/85a31cba-5158-11eb-83e3-322644d82356 story.html.

¹¹⁰ See Josh Rogin, The National Security Council Sounded Early Alarms About the Coronavirus, WASH. POST, Mar. 30, 2020, https://www.washingtonpost.com/opinions/2020/03/30/national-security-council-sounded-early-alarms-about-coronavirus/.

pandemic response was sorely lacking.¹¹¹ Some decentralization is necessary to deal with a pandemic that affects various parts of the country differently at different times.¹¹² As the pandemic worsened, for example, state governors have been among the most important officials in crafting pandemic response policy.¹¹³ Decentralized authority leverages the expertise of state and local officials to respond in ways that meet local conditions and needs. It also allows these governments to experiment with different approaches, so that the more successful ones can be tried elsewhere.¹¹⁴

Despite these advantages, however, decentralization is not necessarily desirable in all contexts and for all governmental functions. There is substantial evidence that the federal government during the Trump Administration abdicated, or at least neglected, its role in pandemic response, leading to a largely ineffective, decentralized effort. According to one observer, "[e]ven after containment was impossible, early adoption of a uniform federal plan that acknowledged the severity of the crisis and provided mitigation guidelines for state public-health officials and ordinary citizens might have lessened the virus's impact." Indeed, the President resisted using his authority under the Defense Production Act¹¹⁶ "to spur additional production of scarce medical supplies and centralized their procurement and distribution." Federal acquisition of medical supplies could have taken advantage of economies of scale and ensured distribution according to

Presidential statements disclaiming responsibility for coordinating a national effort to secure needed supplies and testing capacity, encouraging citizens to defy local stay-at-home orders, and encouraging governors to defy the White House's own guidelines regarding when mitigation measures could be eased left the clear impression that the President had no interest in bringing the federal government's powers to bear in executing the basic blocking and tackling needed for a successful response.

¹¹¹ See Berman, supra note 65, at 79:

¹¹² See, e.g., Gable, supra note 32, at 435 (urging adoption of "an integrated pluralistic governance approach" to public health emergencies to create "a more robust and resilient public health emergency response system"). Moreover, the legality of a hierarchical federal response system is unclear. For example, the scope of the federal government's authority to issue a nationwide quarantine order than binds the states is uncertain. Compare See Maryam Jamshidi, The Federal Government Probably Can't Order Statewide Quarantines, 4/20/2020 U. CHI. L. REV. ONLINE 1 (2020) (asserting that the federal government lacks such authority) with 42 U.S.C. § 264(a) (authorizing the Surgeon General "to make and enforce such regulations as in his judgment are necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the States or possessions, or from one State or possession into any other State or possession"). For arguments in favor of enhanced federal authority to require social distancing and mask wearing, see Lindsay F. Wiley, Democratizing the Law of Social Distancing, 19 YALE J. HEALTH POL'Y, L. & ETHICS 50 (2020).

¹¹³ See, e.g., Kristina Sgueglia, Cheri Mossburg & Maeve Reston, Governors on East and West Coasts Form Pacts to Decide When to Reopen Economies, CNN, Apr. 13, 2020, https://www.cnn.com/2020/04/13/politics/states-band-together-reopening-plans/index.html (reporting that governors of states on both coasts engaged in coordinated planning to re-open economies in ways that limit new outbreaks of coronavirus). Cf. Eang L. Ngov, Under Containment: Preempting State Ebola Quarantine Regulations, 88 TEMP. L. REV. 1, 28-29 (2015) (describing reasons identified by investigators following an outbreak of cholera in New York for the development of a uniform federal quarantine system).

¹¹⁴ See CAMACHO & GLICKSMAN, supra note 13, at 34-35 (identifying these advantages of decentralized allocations of authority).

¹¹⁵ Berman, *supra* note 65, at 79.

¹¹⁶ Defense Production Act of 1950, 50 U.S.C. §§ 4511-4518.

¹¹⁷ Berman, *supra* note 65, at 80; *see also* Caroline Hopkins, "We Are Desperate": Trump's Inaction Has Created a Crisis with Protective Medical Gear, Vox (Mar. 23, 2020), https://www.vox.com/2020/3/22/21189896/coronavirus-in-us-masks-n95-respirator-doctors-nurses-shortage-ppe.

need.¹¹⁸ The Trump Administration also refused to take charge of testing and contact tracing efforts that could have slowed the spread of the virus.¹¹⁹ It declined to make sure that clear and accurate information about the virus was available to all.¹²⁰ In all these respects, the Administration was content to leave the bulk of planning and response responsibility to lower levels of government and to the private sector.

The same unwillingness to lead the response effort surfaced in the distribution of coronavirus vaccines late in 2020. According to public health officials, "federal officials have left many of the details of the final stage of the vaccine distribution process, such as scheduling and staffing, to overstretched local health officials and hospitals." President Trump himself tweeted that it was "up to the States to distribute the vaccines once brought to the designated areas by the Federal Government," leading the dean of Brown University's School of Public Health to remark that "[w]e've taken the people with the least amount of capacity and asked them to do the hardest part of the vaccination – which is actually getting the vaccines administered into people's arms." He also charged that, "[u]timately, the buck stops with no one." The Administration's

¹¹⁸ Ed Yong, *How the Pandemic Defeated America*, ATLANTIC (Aug. 4, 2020), https://www.theatlantic.com/magazine/archive/2020/09/coronavirus-american-failure/614191/ [hereinafter Yong, *Defeated*].

¹¹⁹ Berman, *supra* note 65, at 81; *cf. id.* At 82 (bemoaning the absence of a "comprehensive national plan for assessing the need for and distributing [personal protective equipment] and other supplies or for developing the surveillance and testing capacities that experts insist are needed to keep the virus under control"); *see also* Rachel Weiner, *Trump Administration's Approach to Testing is Chaotic and Unhelpful, States Say*, WASH. POST (July 9, 2020), https://www.washingtonpost.com/health/trump-administrations-approach-to-testing-is-chaotic-and-unhelpful-states-say/2020/07/09/66a4b08a-c1e8-11ea-b4f6-cb39cd8940fb_story.html (repeating criticisms by Democratic leaders that "[t]he Trump Administration's erratic approach to testing for the novel coronavirus has left state leaders and commercial laboratories confused, frustrated, and unprepared . . . ").

¹²⁰ Yong, *Defeated*, *supra* note 118. For example, the White House Coronavirus Task Force informed the states after the 2020 presidential election that it would stop sending weekly reports to the states with current information on the incidence of the virus and recommendations on how to respond to it, notwithstanding the explosion of new cases that were spurred by the virus's second wave. Betsy Klein, *White House Coronavirus Task Force No Longer Proactively Sending to the States*, CNN POLITICS (Dec. 23, 2020), https://www.cnn.com/2020/12/23/politics/white-house-coronavirus-state-reports/index.html. Earlier, the White House had ordered federal health officials to treat the Task Force's meetings as classified, which, according to some of the Trump Administration's own officials, "restricted information and hampered the U.S. government's response to the contagion." Aram Roston & Marisa Taylor, *White House Told Federal Health Agency to Classify Coronavirus Deliberations – Sources*, REUTERS (Mar. 11, 2020), https://www.reuters.com/article/us-health-coronavirus-secrecy-exclusive/exclusive-white-house-told-federal-health-agency-to-classify-coronavirus-deliberations-sources-idUSKBN20Y2LM.

¹²¹ Rebeca Robbins, Frances Robles & Tim Arango, *Here's Why Distribution of the Vaccine Is Taking Longer Than Expected*, N.Y. TIMES (Dec. 31, 2020), https://www.nytimes.com/2020/12/31/health/vaccine-distribution-delays.html.

 $^{^{122}}$ *Id*.

¹²³ Id.

¹²⁴ *Id. See also id.* (reporting that Maryland Governor Larry Hogan attributed the slow vaccination process to "the federal government not sending as many doses as initially predicted" and to "the lack of logistical and financial support for local; health departments"); Rebecca Robbins, Frances Robles & Tim Arango, *Vaccinations Lag as States Tackle Logistical Woes*, N.Y. TIMES (Jan. 1, 2021), https://static01.nyt.com/images/2021/01/01/nytfrontpage/scan.pdf (reporting that Vice-President Pence stated at a press briefing that "decision making at the local level' was key, continuing a long pattern of the administration seeking to push responsibility to the states") [hereinafter Robbins et al., *Logistical Woes*].

"hands off" approach sacrificed the uniformity, economies of scale, and resource pooling advantages that centralized pandemic response authority might have been capable of providing. 125

B. Overlapping and Unaccountable Authority

Like each polar end of the three dimensions of authority, overlapping authority has the potential to provide advantages that include enhanced programmatic effectiveness through the creation of a safety net against inaction and greater resistance to agency capture. ¹²⁶ The experience of federal authority over pandemic planning highlights some of these key benefits. However, overlap is not always advantageous, in that it can impair accountability and create conflicting mandates or advice. ¹²⁷ Existing federal authority over public health emergency response activities illustrates key problems with such an allocation.

1. Overlap in Federal Pandemic Planning

There was significant overlap in planning authority before the pandemic, both among federal agencies and between the federal government and state governments. Various federal statutes assign planning roles concerning public health emergencies to a host of federal officials. The Disaster Relief Act Amendments of 1974 authorizes the President to establish a program of disaster preparedness, including preparation of disaster preparedness plans. 128 The statute also directs the President to establish a federal interagency task force to coordinate implementation of "predisaster hazard mitigation programs administered by the Federal government." As noted above, ¹³⁰ PAPHA delegated to the Secretary of HHS the responsibility of preparing once every four years a National Health Security Strategy for public health preparedness and response. 131 It also required the HHS Secretary to establish an interagency agreement with four specified cabinet secretaries and "the head of any other relevant Federal agency" that would govern HHS's distinct operational control of emergency public health and medical response assets in the event of a public health emergency. ¹³² In the same year as it adopted PAPHA, Congress included in the Department of Homeland Security Appropriations Act a requirement that the Administrator of the Federal Emergency Management Agency (FEMA) "provide Federal leadership necessary to prepare for, protect against, respond to, recover from, or mitigate against a natural disaster." ¹³³ The National Defense Authorization Act for Fiscal Year 2017 directed the Secretaries of Defense, HHS,

¹²⁵ See CAMACHO & GLICKSMAN, supra note 13, at 35-37.

¹²⁶ See id. at 50.

¹²⁷ See id..

¹²⁸ 42 U.S.C. § 5131(a). For a list of the presidential directives, federal statutes, and treaties relating to biodefense matters as of 2015, see BIPARTISAN COMMISSION ON BIODEFENSE, BLUE RIBBON STUDY PANEL ON BIODEFENSE, A NATIONAL BLUEPRINT FOR BIODEFENSE: LEADERSHIP AND MAJOR REFORM NEEDED TO OPTIMIZE EFFORTS 14 (Oct. 28, 2015), https://biodefensecommission.org/wp-content/uploads/2015/10/NationalBluePrintNov2018-03.pdf [hereinafter Blueprint for Biodefense]. One of the panel's recommendations was to create a Biodefense Coordination Council at the White House "to create cohesion among departments, agencies, states, localities, territories, tribes, and industry." *Id.* at 12. The creation of the Obama Directorate within the NSC in 2016 essentially implemented that recommendation.

¹²⁹ *Id.* § 5134(a).

¹³⁰ See supra note 57 and accompanying text.

¹³¹ 42 U.S.C. § 300hh-1(a)(1).

¹³² *Id.* § 300hh(b).

¹³³ Pub. L. No. 109-295, § 611(12), 120 Stat. 1355, 1398 (2007) (codified at 6 U.S.C. § 314(a)).

Homeland Security and Agriculture to jointly develop a national biodefense strategy and associated implementation plan" that, among other things, describes the roles of federal agencies in protecting against biodefense threats, including naturally occurring biological outbreaks. ¹³⁴ In addition, all of these statutes require integration of federal planning mechanisms with state and local public health planning authorities. ¹³⁵ None, however, specifies whether the jointly developed plans or strategies should assign distinct roles to the participating agencies or should reflect the exercise of overlapping implementation responsibilities. In other words, the planning itself is designed to involve overlapping authority, but the statute appears to leave to the discretion of the planning entities whether implementation should also reflect overlapping authority or instead should assign distinct duties.

These statutory directives generated a host of federal plans for managing public health emergencies such as viral pandemics. In 2005 and 2006, for example, the White House Homeland Security Council issued pandemic influenza plans. ¹³⁶ The 2005 Strategy identified leadership roles for particular federal agencies, but by calling them lead agencies, the plans contemplated that other federal (and state) agencies would engage in some of the same activities. ¹³⁷ Likewise, the 2006 Implementation Plan specified different coordinating roles for eight cabinet secretaries. Some of those roles involved coordinating federal with state, local, and tribal action. ¹³⁸ Others seemed to involve distinct federal coordination of private sector activities. ¹³⁹ In 2007, CDC issued planning guidance on strategies for pandemic mitigation by state, territorial, tribal, and local communities, but the plan indicated that it was the joint work product of HHS and "other Federal agencies." ¹⁴⁰ HHS issued a pandemic influenza plan in 2017, updating a similar plan adopted in 2009. ¹⁴¹ That plan stated that it "builds a vision with many partners," including state and local governments and other federal agencies. ¹⁴² HHS's Assistant Secretary for Preparedness and Response issued a

¹³⁴ 6 U.S.C. § 104(a)-(b).

¹³⁵ See, e.g., 42 U.S.C. § 300hh-1(b)(A) (concerning evaluation of federal, state, local, and tribal preparedness and response capabilities through drills and exercises); *id.* § 300hh-1(b)(2) (requiring that the National Health Security Strategy develop and sustain federal, state, local, and tribal essential public health security capabilities); *id.* § 300hh-1(b)(9) (requiring that this Strategy improve coordination among federal, state, local, tribal, and territorial authorities to prevent, detect, and respond to disease outbreaks); 42 U.S.C. § 5131(a)(5) (directing the President to include in a program of disaster preparedness coordinated federal, state, and local preparedness programs).

HOMELAND SECURITY COUNCIL, NATIONAL STRATEGY FOR PANDEMIC INFLUENZA (2005), https://www.cdc.gov/flu/pandemic-resources/pdf/pandemic-influenza-strategy-2005.pdf [hereinafter HSC Strategy]; HOMELAND SECURITY COUNCIL, NATIONAL STRATEGY FOR PANDEMIC INFLUENZA IMPLEMENTATION PLAN (2006), https://www.cdc.gov/flu/pandemic-resources/pdf/pandemic-influenza-implementation.pdf [hereinafter HSC, Implementation Plan].

¹³⁷ See HSC Strategy, supra note 136, at 10 (specifying that HHS would be the lead agency for medical response and that DHS would be the lead agency for "overall domestic incident management and federal coordination).

¹³⁸ HSC, Implementation Plan, *supra* note 136, at 29 (HHS Secretary).

¹³⁹ *Id.* at 30 (Secretary of Agriculture).

¹⁴⁰ CENTERS FOR DISEASE CONTROL, INTERIM PRE-PANDEMIC PLANNING GUIDANCE: COMMUNITY STRATEGY FOR PANDEMIC INFLUENZA MITIGATION IN THE UNITED STATES—EARLY, TARGETED, LAYERED USE OF NONPHARMACEUTICAL INTERVENTIONS 7 (2007), https://www.cdc.gov/flu/pandemic-resources/pdf/community_mitigation-sm.pdf?fbclid=IwAR0DiNfCTdB5alhJaOq3VtxhfymddjvDBCjJG7QPM55-nZ3YHNbAFYT1wio [hereinafter CDC, INTERIM GUIDANCE].

¹⁴¹ U.S. DEP'T OF HEALTH AND HUMAN SERVS., PANDEMIC INFLUENZA PLAN, 2017 UPDATE, https://www.cdc.gov/flu/pandemic-resources/pdf/pan-flu-report-2017v2.pdf.
¹⁴² Id. at 14.

national health security strategy and implementation plan covering 2015-2018. HAS issued its COVID-19 plan at the cusp of planning and response at the inception of the viral outbreak in early 2020. Has it, too, indicated that the plan "was developed through the sustained involvement of a broad array of stakeholders, including agencies and organizations from across the federal government, as well as representatives from the private sector, state and local governments, the nonprofit sector, community-based organizations, and the scientific and academic community." 145

The federal pandemic statutes thus largely anticipated overlapping and collaborative efforts by multiple federal agencies to develop pandemic preparedness plans, often with one agency, such as HHS, taking on a coordinating role. The plans adopted pursuant to these statutes were all jointly developed. This approach is sensible because it allows input by stakeholders, including federal agencies other than the lead coordinating agency, that will play a role in implementing plans and engaging in response actions. At the same time, the designation of a lead agency can help minimize conflicting directives and avoid duplication of effort by assigning specific but distinct tasks to the participating agencies. As the next section indicates, the Trump Administration's response to COVID-19 involved considerable overlapping authority, which in many respects was problematic.

2. Overlap in Federal Pandemic Response

Overlapping authority characterized not only the planning that occurred in anticipation of a public health emergency such as COVID-19, but also in the response that occurred in the wake of the outbreak. The substantial overlap in federal authority that characterized the Trump Administration's pandemic response led to significant inefficiencies, inter-jurisdictional conflict, inaction, and inconsistent action when it occurred.

Almost from the virus's arrival in the United States, it was unclear who was supposed to be in charge of directing planning and how to respond to and implementing those plans. ¹⁴⁶ The White House created its Coronavirus Task Force on January 27, 2020. ¹⁴⁷ At first, HHS Secretary Azar led the Task Force and was in charge of developing the government's pandemic response, although the NSC also had coordinating role. ¹⁴⁸ On February 28, 2020, however, Vice-President Mike Pence took over leadership of the Task Force, ¹⁴⁹ assuming the role of the administration's virus "czar." Not long after that appointment, however, Trump handed over authority to develop and implement at least some aspects of the federal response to the coronavirus to his son-in-law,

¹⁴³ ASSISTANT SECRETARY FOR PREPAREDNESS AND RESPONSE, NATIONAL SECURITY STRATEGY AND IMPLEMENTATION PLAN: 2015-2018, https://www.phe.gov/Preparedness/planning/authority/nhss/Documents/nhss-ip.pdf.

¹⁴⁴ See PANCAP, supra note 25.

¹⁴⁵ *Id*. at v.

¹⁴⁶ See Toluse Olorunnipa, Josh Dawsey & Yasmeen Abutaleb, With Trump Leading the Way, America's Cornoavirus Failures Exposed by Record Surge in New Infections, WASH. POST, June 27, 2020, https://www.washingtonpost.com/politics/with-trump-leading-the-way-americas-coronavirus-failures-exposed-by-record-surge-in-new-infections/2020/06/27/bd15aea2-b7c4-11ea-a8da-693df3d7674a_story.html (stating that "the President's top aides and senior administration officials . . . contradict one another on a daily basis").

¹⁴⁷ GAO-20, 265, *supra* note 25, at 89.

¹⁴⁸ PANCAP, *supra* note 25, at 8; *see also* GAO-20-265, *supra* note 25, at 12 ("The National Security Council also provides guidance to the White House Coronavirus Task Force on matters of policy.

¹⁴⁹ PANCAP, *supra* note 25, at 8.

Jared Kushner, who operated a "shadow" pandemic response program. ¹⁵⁰ Neither the Vice-President nor Mr. Kushner had any relevant disease-related expertise. ¹⁵¹ Working out of FEMA, Kushner displaced HHS, which under PAPHA should have been the lead federal agency, ¹⁵² as the locus of the federal government's management of the pandemic. ¹⁵³ Kushner's emergency as a leader of the response further obscured the hierarchy of decisionmaking authority among Azar, Pence, and Kushner. ¹⁵⁴ The resulting confusion ran counter to the Administration's March 2020 COVID plan, which purported to "identif[y] anticipated roles and responsibilities of HHS, other federal departments and agencies, and supporting organizations, to establish lines of authority and avoid overlap and duplication of effort." ¹⁵⁵

The shifting leadership of the administration's COVID response, and the absence of clearly delineated lines of authority, reflected President Trump's general tolerance for, and at times encouragement of, the creation of conflicting power centers among his subordinates. In this instance, the result was "policy paralysis, confusion about who was in charge and a lack of a clear, consistent message about how to reduce the risks from the pandemic." According to the Commissioner of the Food and Drug Administration for the first two years of President Trump's term, "Someone needed to pull [the response] together. . . . That didn't happen on testing and a whole lot of other things." 157

The lack of clear and consistent signals from the overlapping federal response authorities plagued various aspects of the response. For example, HHS posted guidelines informing individuals who were exposed to the coronavirus but were asymptomatic that they did not need to get tested on CDC's website without CDC's input or approval and over the objection of some of its scientists. Similarly, HHS prepared and posted guidance on the importance of opening schools on CDC's website, and HHS revised CDC's Morbidity and Mortality Weekly

¹⁵⁰ Bess Levin, *So Jared Kushner Is Running a "Shadow" Coronavirus Task Force*, VANITY FAIR, Mar. 19, 2020, https://www.vanityfair.com/news/2020/03/jared-kushner-shadow-coronavirus-task-force.

Michelle Goldberg, *Putting Jared Kushner in Charge is Utter Madness*, N.Y. TIMES, Apr. 2, 2020, https://www.nytimes.com/2020/04/02/opinion/jared-kushner-coronavirus.html); Olorunnipa, Dawsey & Abutaleb, *supra* note 146 ("Others without a background in public health, including Trump's son-in-law, Jared Kushner, have played an outsize role in guiding the federal response."). *Cf.* Klarman, *supra* note 3, at 101 ("Yet at least in part because of President Trump's disdain for expertise and the Republican Party's general contempt for government, the Department of Homeland Security (DHS) and the Department of Veterans Affairs confronted the nation's largest public health crisis in a century with vacant positions, acting officials, and a lack of experts.").

Adam Cancryn & Dan Diamond, *Behind the Scenes, Kushner Takes Charge of Coronavirus Response*, POLITICO, Apr. 1, 2020, https://www.politico.com/news/2020/04/01/jared-kushner-coronavirus-response-160553?cid=apn.

¹⁵⁴ See id. (reporting that Kushner recruited the head of Medicare's innovation center "to organize and manage key projects—bypassing the bureaucratic structures and internal rivalries that slowed progress in the response's early months"); cf. Tom McCarthy, Jared Kushner and His Shadow Corona Unit: What Is Trump's Son-in-Law Up To?, THE GUARDIAN, Apr. 5, 2020, https://www.theguardian.com/world/2020/apr/05/jared-kushner-coronavirus-aid-trump-governors ("The precise dimensions of Kushner's emergency response role are difficult to pin down because his authority, which stems from his marriage, exists outside the mapped structure of government agencies. He seems to be inventing his role on the fly, and to have the power to do so.").

¹⁵⁵ PAN CAP, *supra* note 25, at 1.

¹⁵⁶ Robbins et al., *Logistical Woes*, *supra* note 124.

¹⁵⁷ Id

¹⁵⁸ See Apoorva Mandavilli, C.D.C. Testing Guidance Was Published Against Scientists' Objections, N.Y. TIMES (Sept. 17, 2020), https://www.nytimes.com/2020/09/17/health/coronavirus-testing-cdc.html. ¹⁵⁹ Id.

Reports. ¹⁶⁰ Senior public health officials charged that this inter-agency "meddling . . . was turning widely followed and otherwise apolitical guidance on infectious disease . . . into a political loyalty test, with career scientists [at CDC and elsewhere] framed as adversaries of the administration." ¹⁶¹ An acting director of CDC during the Obama Administration remarked that "[t]he idea that someone at H.H.S. would write guidelines and have it posted under the C.D.C. banner is absolutely chilling." ¹⁶² CDC also posted and then, apparently at the behest of the White House, ¹⁶³ removed guidance indicating that the extent to which the virus is spread by airborne transmission is greater than previously believed. According to public health experts, such changes had the potential to shift policy over matters such as whether live classroom instruction was safe. ¹⁶⁴ The dissemination of conflicting information about matters such as the incidence of cases impaired the ability of states, localities, and medical facilities to respond to the virus, such as by directing medical supplies to areas most likely to need them and making decisions about which facilities to open or close to public access.

C. Uncoordinated Pandemic Planning and Response Efforts

The Trump Administration's organizational failures were perhaps most acute along the coordination-independence dimension. The Ebola outbreak crystallized the importance of intergovernmental coordination in both pandemic planning and response, ¹⁶⁵ and subsequent planning under the Obama and Trump administrations signified awareness of the value of such coordination. Yet those lessons were lost on the Trump Administration, which could and should have been better organized and prepared to combat public health and safety emergencies. As things turned out, coordination failures at both the planning and response stages had devastating public health impacts. ¹⁶⁶

Noah Weiland, Sheryl Gay Stolberg and Abby Goodnough, Political Appointees Meddled in C.D.C.'s 'Holiest of the Holy' Health Reports, N.Y. TIMES (Sept. 12, 2020, updated Sept. 18, 2020), https://www.nytimes.com/2020/09/12/us/politics/trump-coronavirus-politics-cdc.html

¹⁶² Mandavilli, *supra* note 158.

¹⁶³ Matt Stieb, *CDC Reverses on COVID-19 Airborne Transmission, Says Guidelines Were 'Posted in Error,*' N.Y. MAG., THE INTELLIGENCER (Sept. 21, 2020), https://nymag.com/intelligencer/2020/09/cdc-reverses-covid-transmission-guidelines-posted-in-error.html ("Throughout the pandemic, pressured by the current administration to release politically friendly information and frustrated by the challenges of a novel virus, the CDC has reversed an alarming number of recommendations.").

¹⁶⁴ See Tim Elfrink, Ben Guarino & Chris Mooney, CDC Reverses Itself and Says Guidelines It Posted on Coronavirus Airborne Transmission Were Wrong, WASH. POST (Sept. 21, 2020). https://www.washingtonpost.com/nation/2020/09/21/cdc-covid-aerosols-airborne-guidelines/.

¹⁶⁵ See, e.g., Rothstein, supra note 22, at 279 ("In the United States, due to its complex and decentralized public health system, communication, coordination, calm, and proportionate response quickly emerged as leading concerns when a few Ebola cases were diagnosed and treated."); James J. Misrahi, The CDC's Communicable Disease Regulations: Striking the Balance Between Public Health & Individual Rights, 67 EMORY L.J. 463, 475 (2018) ("One of the lessons learned from the 2014-2016 Ebola epidemic was the need for a federal mechanism, in coordination with state and local public health authorities, to allow for the controlled movement of individuals in need of further public health monitoring, particularly regarding healthcare workers desiring to return to their home states of residence from Ebola-affected countries."); Dr. Andra le Roux-Kemp, International and Operational Responses to Disease Control: Beyond Ebola and Epistemological Confines, 15 IND. HEALTH L. REV. 247, 267 (2018) (stating that "the international response and coordination was found to be wholly inadequate and lacking" to deal with the Ebola outbreak).

¹⁶⁶ See Yasmeen Abutaleb et al., The U.S. Was Beset by Denial and Dysfunction as the Coronavirus Raged, WASH. POST, Apr. 4, 2020, https://www.washingtonpost.com/national-security/2020/04/04/coronavirus-government-

1. Uncoordinated Pandemic Planning

Some public policy problems are not well suited to "seat-of-the-pants" decisionmaking, requiring instead a coordinated plan of attack. 167 To many, perhaps, it might seem obvious that pandemic planning would be one such problem, as previous presidential administrations had recognized. The federal statutes that govern planning for public healthy emergencies are littered with mandates to various federal officials to coordinate with each other; with state, local, and tribal officials; and with private stakeholders such as hospitals. The Disaster Relief Act of 1974, for example, authorizes the President to include in the federal government's program of disaster preparedness "coordination of Federal, State, and local preparedness programs." 168 As noted above, ¹⁶⁹ the statute also directs the President to establish a federal interagency task force to coordinate implementation of "predisaster hazard mitigation programs administered by the Federal government." ¹⁷⁰ PAPHA requires HHS to prepare "a coordinated" National Health Security Strategy¹⁷¹ whose preparedness goals include "[m]inimizing duplication of, and ensuring coordination between, Federal, State, local, and tribal planning [and preparedness. . . . "172 The Strategy also must seek to "[i]mprov[e] coordination among Federal, State, local, Tribal, and territorial entities . . . to prevent, detect, and respond to outbreaks" of zoonotic diseases. ¹⁷³ HHS's ASPR, a position created by PAPHA, must "[c]oordinate with relevant Federal officials to ensure integration of Federal preparedness and response activities for public health emergencies," 174 and "[p]rovide integrated policy coordination and strategic direction, before, during, and following public health emergencies. . . . "175 The national biodefense strategy and associated implementation plan required by the National Defense Authorization Act for Fiscal Year 2017 must include "[a] description of the roles and responsibilities of Executive agencies, including internal and external coordination procedures" in warning about and protection against naturally occurring biological outbreaks. 176

Federal executive branch officials, up to and including various presidents, also emphasized the importance of coordination in pandemic planning. President George W. Bush issued a directive making the DHS Secretary responsible "for coordinating Federal operations within the United

Craig Anthony (Tony) Arnold, *Adaptive Watershed Planning and Climate Change*, 5 ENVTL. & ENERGY L. & POL'Y J. 417, 421 (2010).

dysfunction/?arc404=true. For a list of government entities that, prior to the COVID-19 outbreak, had developed "emergency-response plans to guide pandemic response should the need arise," see Berman, *supra* note 65, at 64. ¹⁶⁷ *See* Paul R. Schulman, *Nonincremental Policy Making: Notes Toward and Alternative Paradigm*, 69 AM. POL. SCI. REV. 1354 (1975). Tony Arnold put it this way:

Without some process of planning, Charles Lindblom's "science of muddling through" – the public-policy and public-administration foundation of adaptive management – becomes "the science of drifting along." We run the risk of having no goals or sense of direction, no go-to plans ready to use when contingencies arise, no long-term investment of resources in conservation, no proactive efforts, and no agreed-upon criteria, values, and processes for evaluating possible alternative courses of action.

¹⁶⁸ 42 U.S.C. § 5131(a)(5).

¹⁶⁹ See supra notes 128-29 and accompanying text.

¹⁷⁰ 42 U.S.C. § 5134.

¹⁷¹ 42 U.S.C. § 300hh-1(a)(1).

¹⁷² *Id.* § 300hh-1(b)(5).

¹⁷³ *Id.* § 300hh-1(b)(9).

¹⁷⁴ *Id.* § 300hh-10(b)(4)(A).

¹⁷⁵ *Id.* § 300hh-10(b)(4)(D).

¹⁷⁶ 6 U.S.C. § 104(b)(4).

States to prepare for, respond to, and recover from" major disasters and other emergencies. President Obama's executive order to implement the GHSA spurred by the Ebola virus directed "each executive department, agency, and office (agency)..., as appropriate, [to] partner, consult, and coordinate with other governments" and nongovernmental stakeholders, including the private sector." ¹⁷⁸

In the same vein, under the leadership of Ron Klain, in his role as the White House Ebola response coordinator, the Obama Administration prepared a plan to deal with future infectious disease threats, specifically including novel coronaviruses. ¹⁷⁹ The plan's objective was to assist government officials "in coordinating a complex U.S. Government response to a high-consequence emerging disease threat anywhere in the word." ¹⁸⁰ During the transition to the Trump Administration, outgoing Obama Administration officials briefed the new Administration on the existence of the plan and conducted tabletop exercises to help plan for a pandemic-like situation. ¹⁸¹

Before the outbreak of the coronavirus, public health experts had warned for months of the consequences of poor organizational choices, including the absence of coordinated planning under the leadership of empowered federal officials. A report issued by the bipartisan Center for Strategic & International Studies Commission¹⁸² on Strengthening America's Health in 2019 recommended a restoration of the dedicated pandemic response Directorate within the NSC. The report urged the U.S. government to:

re-establish a directorate for global health security and biodefense on the National Security Council (NSC) staff and . . . name a senior-level leader in charge of coordinating U.S. efforts to anticipate, prevent, and respond to biological crises. These actions will ensure that the necessary leadership, authority, and accountability is in place to protect the United States from a deadly and costly health security emergency. ¹⁸³

The report added that, as things then stood, "critical leadership gaps remain. It remains unclear who would be in charge at the White House in the case of a grave pandemic threat or cross-border biological crisis, whether natural, accidental, or deliberate." It claimed that a re-established health security and biodefense Directorate within the NSC could not only facilitate planning for crises such as viral outbreaks, but also promote efficient responses, strengthened accountability, and better spending of scarce resources when an outbreak occurred. 185

¹⁷⁷ Homeland Security Presidential Directive 5 (HSPD- 5), Management of Domestic Incidents ¶ 4 (2003), https://www.dhs.gov/sites/default/files/publications/Homeland%20Security%20Presidential%20Directive%205.pdf. 178 Exec. Order No. 13747, Advancing the Global Health Security Agenda to Achieve a World Safe and Secure From Infectious Disease Threats, § 1, 81 Fed. Reg. 78701 (Nov. 9, 2016).

¹⁷⁹ PLAYBOOK, *supra* note 70. On Klain's role in preparing the Playbook, see Victoria Knight, *Evidence Shows Obama Team Left A Pandemic 'Game Plan' For Trump Administration*, KHN (May 15, 2020), https://khn.org/news/evidence-shows-obama-team-left-a-pandemic-game-plan-for-trump-administration/.

¹⁸⁰ PLAYBOOK, *supra* note 70, at 4.

¹⁸¹ Knight, *supra* note 179.

¹⁸² For a description of the CSIS, see supra note 63.

¹⁸³ CSIS, CYCLE OF CRISIS, *supra* note 63, at 17.

¹⁸³ ENDING THE CYCLE, *supra* note 92, at 17.

¹⁸⁴ *Id*. at 18.

¹⁸⁵ *Id*.

At least initially, the Trump Administration implicitly seemed to recognize the need for coordinated leadership by an empowered federal agency. At a Biodefense Summit hosted by HHS in April 2019, Secretary Alex Azar expressed his concern about a pandemic flu and enunciated "a cardinal rule of leadership that you have to have accountability, which means picking a leader . . . who has a particular interest not just in our national security, but in preparedness for biodefense in particular." Yet, when COVID-19 began spiraling out of control, congressional leaders such as Senate Majority Leader Mitch McConnell denied the existence of any previously prepared pandemic "game plan," while the Trump Administration's press secretary, while acknowledging the existence of the Obama Playbook, dismissed it as useless. As a result, the Obama plan's "detailed exact steps to take in the event of an infectious disease outbreak" were largely if not entirely ignored.

Even if the Trump Administration doubted the utility of the Obama Playbook, it had the opportunity to engage in its own pandemic planning. After all, the Administration took office in January 2017 and COVID-19 did not surface in the United States until early 2020. Between January and August 2019, HHS actually ran a simulated exercise, called "Crimson Contagion," to test the nation's readiness to deal with a pandemic. The simulation involved U.S. tourists returning home after a visit to China with a respiratory virus. The take-aways from the simulation included findings that federal funding sources were insufficient, there was confusion about how to apply the Defense Production Act, there was a lack of clarity on the roles of different federal agencies, confusion existed between HHS, FEMA, and the Department of Homeland Security (DHS) on which federal agency would take the lead in the event of a crisis, the relevant federal agencies used disparate information management systems, and federal-state information sharing nodes were unclear. The draft report issued at the conclusion of the simulation exercise concluded:

further examination is needed to determine how federal interagency partners will coordinate with one another on a variety of pandemic influenza-specific response activities, including but not limited to information-sharing with the National Security Council, addressing shortages in medical countermeasure and ancillary supplies, bilateral state-federal request for information coordination nodes and processes, and the respective roles and responsibilities of HHS and DHS/FEMA in response to a complex and unique threat, with a nontraditional lead federal agency. ¹⁹¹

The 2019 simulation exercise "drove home just how underfunded, underprepared and uncoordinated the federal government would be for a life-or-death battle with a virus for which no

¹⁸⁶ Andrew Kaczynski & Em Steck, *Top Administration Officials Said Last Year Threat of Pandemic Kept Them Up at Night*, CNN, Apr. 3, 2020, https://www.cnn.com/2020/04/03/politics/kfile-officials-worried-over-pandemic-last-year/index.html.

¹⁸⁷ *Id*.

¹⁸⁸ *Id*.

¹⁸⁹ See Crimson Contagion 2019 Functional Exercise Key Findings, https://int.nyt.com/data/documenthelper/6824-2019-10-key-findings-and-after/05bd797500ea55be0724/optimized/full.pdf#page=1 [hereinafter Crimson Contagion].

¹⁹⁰ *Id.* at 18, 21, 25, 31, 35, 39; Carol Marin & Don Moseley, *'Crimson Contagion 2019' Simulation Warned of Pandemic Implications in US*, NBC5CHICAGO (Mar. 24, 2020), https://www.nbcchicago.com/news/local/crimson-contagion-2019-simulation-warned-of-pandemic-implications-in-us/2243832/.

¹⁹¹ Crimson Contagion, *supra* note 189, at 46.

treatment existed."¹⁹² Whatever follow-up planning, if any, that may have occurred, however, did not adequately address these shortcomings, and the lack of coordination highlighted by the planning exercise plagued the eventual response. President Trump asserted by way of justification that "nobody knew there would be a pandemic . . . of this proportion," when in fact the simulation exercise had predicted exactly that. ¹⁹³

Other past and present federal officials took issue with the Trump Administration's apparent lack of interest in rigorous pandemic planning and its planning-related organizational choices, and in particular with the elimination of the Global Health Security and Biodefense Directorate as a separate entity. Senator Diane Feinstein sent a letter to Secretary Azar in January 2020 asking him to increase preparedness and reinstate the Obama Directorate. At about the same time, Ron Klain, who headed the Directorate before Beth Cameron, opposed the Trump Administration's decision to merge it into an NSC body with a broader and more disparate jurisdiction. Klain asserted that "with no one in charge at the White House, there is no authority to resolve disputes between federal agencies; no one to hold agencies accountable for the pace and intensity with which they implement the response; no one to resolve competing requests for congressional funding; and no one to draw on the resources of the security agencies of the government to help support the response." 195

The absence of coordinated federal leadership made it virtually impossible to make any individual or agency accountable, especially in the face of President Trump's refusal to take any responsibility for anything the government did or did not do in facing the virus. ¹⁹⁶ As one scholar has noted, "[a]nyone who has considered pandemic preparedness has emphasized the need for a 'single, comprehensive, and harmonized strategy' orchestrated by a 'single leader to control, prioritize, coordinate, and hold agencies accountable." ¹⁹⁷

¹⁹² David E. Sanger et al., *Before Virus Outbreak, a Cascade of Warnings Went Unheeded*, N.Y. TIMES (Mar. 19, 2020, updated Mar. 22, 2020), https://www.nytimes.com/2020/03/19/us/politics/trump-coronavirus-outbreak.html.

¹⁹³ Mary Papenfuss, *Trump Administration Failed Dry Run 'Crimson Contagion' Pandemic Exercise*, HUFFPOST (Mar. 20, 2020), https://www.huffpost.com/entry/crimson-contagion-exercise-trump-administration-failures_n_5e744105c5b6eab7794560e6).

¹⁹⁴ Dana Milbank, *Republicans Were Warned. Yet They Persisted in Defending Trump.*, WASH. POST, Apr. 1, 2020, https://www.washingtonpost.com/opinions/2020/04/01/republicans-were-warned-yet-they-persisted-enabling-trumps-coronavirus-debacle/.

¹⁹⁵ Klain, *supra* note 64. According to one source, more than 50 federal executive branch political appointees had some responsibility for biodefense matters as of 2015, "but [they] largely act independently." BLUEPRINT FOR BIODEFENSE *supra* note 128, at 12.

¹⁹⁶ Caitlin Oprysko, 'I Don't Take Responsibility at All': Trump Deflects Blame for Coronavirus Testing Fumble, POLITICO, Mar. 13, 2020, https://www.politico.com/news/2020/03/13/trump-coronavirus-testing-128971. Others have suggested different ways to foster accountability, such as transforming executive branch public health agencies into independent agencies in the traditional administrative law meaning of that term (i.e., agencies that are typically headed by bipartisan multi-member boards or commissions whose members are removable by the President only for cause). See, e.g., Eric E. Johnson & Theodore C. Bailey, Urgent Legal Lessons from a Very Fast Problem: Covid-19, 73 STAN. L. REV. Online (2020), https://www.stanfordlawreview.org/online/legal-lessons-from-a-very-fast-problem-covid-19/ (arguing that "[w]e could refashion the [U.S. Public Health Service] on the model of independent agencies such as the Federal Reserve Board" to shield its decisions from political influence).

¹⁹⁷ Berman, *supra* note 65, at 78 (quoting BLUEPRINT FOR BIODEFENSE *supra* note 128, at iv). The Panel asserted in its 2015 report that "federal biodefense activities are insufficiently coordinated. Authority and responsibilities are dispersed among many cabinet agencies, without the benefit of a single leader to provide directives and receive reports. Thus, while outcomes of individual department and agency efforts may or not be successful, no one is held fully accountable for the necessary outcomes of a mission-oriented and integrated biodefense enterprise." *Id.* at 11.

2. Uncoordinated Pandemic Response

These deficiencies in planning coordination considerably impaired the Administration's capacity to respond to the pandemic, which was saddled with its own coordination challenges. The Trump Administration's creation of multiple power centers without specification of the relationships among them did nothing to address the lack of clarity identified by HHS's 2019 Crimson Contagion exercises over the locus of pandemic response authority.

When the COVID-19 virus first emerged in 2020, Trump's Secretary of HHS, Alex Azar, responding to concerns that the Administration was insufficiently prepared to manage the pandemic response, ¹⁹⁸ insisted that White House coordination of pandemic-related matters was adequate. ¹⁹⁹ As late as the end of February 2020, he continued to insist that there was no need for a coronavirus "czar," because the existing strategy was working very well. ²⁰⁰

A former senior U.S. official pointed out, however, that notwithstanding the creation of the White House Coronavirus Task Force, "[f]or the first time since 9/11, you don't have someone directly and immediately reporting to the president responsible 24/7 for the major transnational threats we face—terror, cyber, pandemics." Even some senior Trump Administration officials acknowledged that "It's better to have one person who has the backing of the White House to coordinate." According to a senior administration official, "the problem is no one is sure who is in charge," leading to "conflicting signals within the White House's disjointed response to the crisis." Similarly, a high-ranking official from the George W. Bush Administration who worked on HIV-related matters opined that, "[t]here isn't any clear direction as to what the

¹⁹⁸ See also Kaczynski & Steck, supra note 186 (referring to scrutiny over the Trump Administration's "preparations for the coronavirus pandemic").

¹⁹⁹ Eric Lutz, *High Gear*?, VANITY FAIR, Feb. 26, 2020, https://www.vanityfair.com/news/2020/02/will-trump-kick-coronavirus-response-into-high-gear.

²⁰⁰ Strickler & Dilanian, *supra* note 104; Lutz, *supra* note 198 (reporting that Azar called the appointment of a "czar" to lead the pandemic response unnecessary, that the administration had the situation under control, and that federal interagency processes concerning the response were operating smoothly)

²⁰¹ Strickler & Dilanian, *supra* note 104.

 $^{^{202}}$ Id

²⁰³ Ashley Parker et al., *Infighting, Missteps and a Son-in-Law Hungry for Results: Inside the Trump Administration's Troubled Coronavirus Response*, WASH. POST, Mar. 14, 2020, https://www.washingtonpost.com/politics/infighting-missteps-and-a-son-in-law-hungry-for-action-inside-the-trump-administrations-troubled-coronavirus-

response/2020/03/14/530c28b4-6559-11ea-b3fc-7841686c5c57_story.html; see also Lena H. Sun & Josh Dawsey, CDC Feels Pressure from Trump as Rift Grows Over Coronavirus Response, WASH. POST, July 9, 2020, https://www.washingtonpost.com/health/trump-sidelines-public-health-advisers-in-growing-rift-over-coronavirus-response/2020/07/09/ad803218-c12a-11ea-9fdd-b7ac6b051dc8_story.html (quoting Beth Cameron's view in the summer of 2020, as new cases of Covid-19 rose across the country, that "[a]t a time when our country needs an orchestrated, all-hands-on-deck response, there is simply no hand on the tiller").

²⁰⁴ Yasmeen Abutaleb, Ashley Parker & Josh Dawsey, *Kushner Coronavirus Team Sparks Confusion, Plaudits Inside White House Response Efforts*, WASH. POST, Mar. 18, 2020, https://www.washingtonpost.com/politics/kushner-coronavirus-team-sparks-confusion-plaudits-inside-white-house-response-efforts/2020/03/18/02038a16-6874-11ea-9923-57073adce27c_story.html; *see also* Ashley Parker, Yasmeen Abutaleb & Josh Dawsey, *Trump Administration Has Many Task Forces—But Still No Plan for Beating Covid-19*, WASH. POST, Apr. 11, 2020, https://www.washingtonpost.com/politics/trump-task-forces-coronavirus-pandemic/2020/04/11/5cc5a30c-7a77-11ea-a130-df573469f094_story.html [hereinafter Parker at al., *Still No Plan*] (describing the Trump Administration's pandemic response structure as "a bureaucratic nesting doll of groups with frequently competing aims and agendas").

strategic goals are in each different line of effort."²⁰⁵ Despite these warnings, the Azar, Pence, and Kushner-led teams, as well as state and local responders, appeared at times to act independently of one another.

Coordination can be a valuable means of preventing or reducing some of the more harmful features of independent government action (such as free-riding and lack of accountability). ²⁰⁶ Better coordination could have facilitated a more effective set of responses to the pandemic, such as a robust nationwide testing and tracing program capable of curbing the spread of the virus. ²⁰⁷ Instead, lack of coordination by the federal government impaired ability of health care providers to test for the virus. ²⁰⁸

Similarly, the lack of coordination among federal agencies played a part in CDC's disastrous rollout of a test to detect the virus. The World Health Organization (WHO) publicized a recipe for configuring a COVID-19 test on January 13, 2020. 209 Testing could not begin in the United States, however, until CDC developed a test that the Food and Drug Administration (FDA) would authorize for emergency use. 210 Instead of endorsing the WHO test, which seemed to be accurate, as nations such as Thailand quickly did, CDC scientists modified the test in an effort to identify the novel coronavirus even if it mutated. The new CDC test, however, generated false positives which were apparently linked to the CDC modification of the WHO test. At that point, CDC could have dropped the modification and forwarded the original WHO test to FDA to accelerate testing. Instead, it tried to manufacture a new batch of tests that would be free of contamination. Some CDC scientists lobbied for the unmodified WHO test to meet surging demand for testing. But those responsible for the CDC testing regime replied that the proposal was "a non-starter" because the FDA would never agree with it. In fact, government officials later

²⁰⁵ Parker et al., Still No Plan, supra note 204.

²⁰⁶ Cf. J.B. Ruhl & James Salzman, Climate Change, Dead Zones, and Massive Problems in the Administrative State: A Guide for Whittling Away, 98 CAL. L. REV. 59, 70-71 (2010) (arguing that when obstacles such as transaction costs and other collective action challenges prevent coordination, the result may be a "tragedy of the regulatory commons" characterized by increased free ridership); Ben Depoorter, Horizontal Political Externalities: The Supply and Demand of Disaster Management, 56 DUKE L.J. 101, 115-16 (2006) (arguing that coordination between political actors can mitigate incentives to free ride on the efforts of other levels of government); Shi-Ling Hsu, A Game-Theoretic Model of International Climate Change Negotiations, 19 N.Y.U. ENVTL. L.J. 14, 32 (2011) (arguing that international coordination is necessary to prevent free riding in efforts to mitigate climate change).

²⁰⁸ See Maggie Fox, Coronavirus Testing Is 'A Mess' in the US, Report Says, CNN, May 21, 2020, nn.com/2020/05/20/health/testing-coronavirus-cidrap-report/index.html. The report referred to in Fox's story concluded that "[c]ritical guidance and coordination at the federal level is needed to meet the SARS-CoV-2 testing demand." CENTER FOR INFECTIOUS DISEASE RESEARCH AND POLICY, COVID-19: THE CIDRAP VIEWPOINT 2 (May 20, 2020), https://www.cidrap.umn.edu/sites/default/files/public/downloads/cidrap-Covid19-viewpoint-part3.pdf; see also id. at 4 ("For testing to be maximally effective, coordination across the system and across jurisdictions is necessary. Ideally, this requires federal guidance, leadership, and support, with strong jurisdictional buy-in at the state and local levels."); Balz, Crisis, supra note 9 ("For months, the Trump Administration has been running behind to bring testing to the levels needed.").

²⁰⁹ David Willman, *The CDC's Failed Race Against Covid-19: A Threat Underestimated and a Test Overcomplicated*, WASH. POST (Dec. 26, 2020), https://www.washingtonpost.com/investigations/cdc-covid/2020/12/25/c2b418ae-4206-11eb-8db8-395dedaaa036 story.html.

²¹⁰ CDC could not distribute its own test to public health labs without FDA approval, and FDA regulations prevented clinical labs from developing and conducting their own tests. Bob Ortega, *How the Government Delayed Coronavirus Testing*, CNN, Apr. 9, 2020, https://www.cnn.com/2020/04/09/politics/coronavirus-testing-cdc-fda-red-tape-invs/index.html.

indicated that FDA would have considered approving of the WHO test without the CDC modification. The absence of coordinated communication between CDC and the FDA thus slowed development of an approved COVID test. Eventually, Dr, Fauci intervened, imploring HHS to take charge. FDA finally told CDC that public health labs could use the WHO test, but by then 46 days had elapsed since WHO had publicly shared its test protocol.

After FDA approved testing protocols, the lack of interagency coordination also hindered distribution of the tests and materials needed to administer them. The head of the Biomedical Advances Research and Development Authority, whom President Trump fired in April 2020, testified before Congress that he was "quite alarmed" over a shortage of swabs for testing. 212 According to one account, "[a] constant refrain from [Rick] Bright throughout his hearing was highlighting what he considered a lack of coordinated strategy from the White House." That lack of coordination was not inevitable. In fact, a memorandum of agreement between CDC and three of the nation's biggest associations of lab testing facilities after the outbreak of the Zika virus in 2016 called for extensive coordination in planning and communication between CDC, public health labs, and the commercial sector. 214 But a combination of disinterest from the White House and overlapping but uncoordinated authority among CDC, 215 FDA, and the Centers for Medicare & Medicaid Services apparently sidelined the cooperative efforts anticipated in the 2018 agreement. 216

The Trump Administration's failure to coordinate federal and state response measures plagued the nation's effort to combat the virus even during the administration's last weeks. Due to a combination of government-led and private initiatives, FDA was able to approve two different versions of a coronavirus vaccine in 2020 (the Pfizer-BioNTech and Moderna vaccines). ²¹⁷ But HHS Secretary Azar's prediction that 20 million people would get vaccinated by the end of 2020 did not come to pass. CDC had issued an interim playbook about coronavirus vaccination in

²¹¹ Willman, *supra* note 209.

Melissa Macaya et al., 5 Takeaways from Rick Bright's House Hearing, CNN, May 15, 2020, https://www.cnn.com/2020/05/14/politics/key-moments-bright-hearing/index.html.

²¹³ Id.; see also Aaron C. Davis et al., Ousted Vaccine Official Testifies Country Still Lacks Master Plan Amid Pandemic, WASH. POST, May 14, 2020, https://www.washingtonpost.com/investigations/ousted-vaccine-official-testifies-country-still-lacks-master-plan-amid-pandemic/2020/05/14/e9b6cd64-960f-11ea-82b4-

c8db161ff6e5_story.html ("Bright said there is still "no master plan" for assessing the need for and distribution of masks, testing swabs and other medical equipment."); Parker et al., *Still No Plan*, *supra* note 204 ("There is still no concerted plan for getting vital medical supplies to states, which are left to fight among themselves or seek favors from Trump.")..

²¹⁴ Ortega, *supra* note 210.

²¹⁵ The CDC, which had developed experience in pandemic response in connection with malaria, smallpox, and HIV/AIDS, was largely sidelined in the Trump Administration's response to the virus. Its leadership was pressured by Administration officials, including President Trump, to weaken or rescind its recommendations on personal conduct such as mask wearing and conditions for safe reopening of the economy. *See* Sun & Dawsey, *supra* note 203. ²¹⁶ *See* Ortega, *supra* note 210.

²¹⁷ U.S. Food and Drug Admin, COVID-19 Vaccines, https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines (last visited Jan. 13, 2021).

²¹⁸ Veronica Stracqualursi, *Americans Could Be Vaccinated in 'the Next Several Weeks'*, CNN POLITICS (Dec. 10, 2020), https://www.cnn.com/2020/12/09/politics/alex-azar-coronavirus-vaccine-cnntv/index.html.

September 2020 and requested that states submit immunization plans.²¹⁹ CDC briefings on the vaccine rollouts were short on detail, however. CDC failed to inform the states, for example, how many doses they would receive and when they would get them. Essentially, the Trump Administration left it up to the states to devise their own distribution strategies. In the absence of useful federal guidance, the states sought to coordinate among themselves by sharing advice about common logistical challenges. The administration blamed the slow pace of vaccination on excessively rigid adherence by the states to federal guidance about how to prioritize vaccination candidates. But others concluded that "[t]he delayed and disjointed vaccine rollout [was] the product of poor coordination between the federal government and the 50 states," and that it had become clear that "the United States has not learned from its fractured pandemic response and risks repeating some of the same errors."²²⁰

V. LEARNING FROM FAILURE

Even in the midst of the COVID-19 pandemic, sitting and former political leaders from both political parties recognized the urgent need to reform the government's public health infrastructure, with many predicting that such reorganization will occur, much as the Department of Homeland Security was created in the aftermath of 9/11. Former Senate Majority Leader Tom Daschle, for example, remarked that "I don't think there is any doubt that there will be a massive effort to reorganize government in the aftermath of COVID-19." Senator Susan Collins agreed that "I would think some structural changes would come out of this. . . . We need some form of coordinating structure." As noted above, federal legislators have introduced legislation that would draw upon the experience of the COVID-19 pandemic to improve the government's capacity to prevent and manage future public health crises, either through

²¹⁹ Lena H. Sun et al., *Vaccines Were a Chance to Redeem Failures in the U.S. Coronavirus Response. What Went Wrong?*, WASH. POST (Jan. 11, 2021), https://www.washingtonpost.com/health/covid-vaccine-slow-rollout/2021/01/11/2e804898-5100-11eb-bda4-615aaefd0555 story.html.

²²⁰ *Id.* The dean of the Brown University School of Public Health characterized the administration's effort to blame the states for the slow pace of vaccinations as "political theater and obviously untrue. States undoubtedly have a critical role to play in vaccine distribution. But states alone can't mount one of the largest vaccination efforts in recent history. Moreover, not all 50 states are failing." Ashish K. Jha, *Vaccination is Going Slowly Because Nobody is in Charge*, WASH. POST (Dec. 31, 2020), https://www.washingtonpost.com/outlook/2020/12/31/vaccination-slow-trump-administration-states/. According to Dr. Jha, resource-starved state agencies were "in no position to take on rapid deployment of a new vaccine without a lot more resources and help." *Id.* Thus, a lack of coordination between the federal government and the states in financing the vaccination rollout contributed to its laggardly pace.

²²¹ See CAMACHO & GLICKSMAN, supra note 13, at 154-55.

²²² Carl Hulse, *Does a Dept. of Pandemics Sound Odd? Homeland Security Once Did, Too*, WASH. POST, Apr. 20, 2020, https://www.nytimes.com/2020/04/11/us/coronavirus-pandemics-homeland-security.html.

²²⁴ See supra notes 10-14 and accompanying text.

congressional investigative committees,²²⁵ interagency task forces,²²⁶ or independent commissions.²²⁷ A significant component of these proposals would be an effort to identify and evaluate the lessons learned from the COVID-19 experience concerning how to structure effective pandemic planning and response authority.²²⁸

Even the necessarily circumscribed evaluation of the planning and response failures that plagued the Trump Administration's management of the pandemic in 2020 provided in this article already suggests a number of valuable lessons. First, the article illustrates several general postulates for policymakers and scholars to consider about the characterization and assessment of governmental authority. More specifically, it offers a preliminary outline about the governance structures that may be better suited to effective pandemic planning and response.

1. Structural Governance Lessons from Federal COVID-19 Planning and Response

We derive at least five generalizable lessons from our analysis of the COVID-19 experience during 2020. More broadly, each of these lessons makes the case that how government authority is configured may often be a vital factor in the success or failure in achieving public policy goals.²²⁹

First, whether intentionally or not, government authority is always allocated at some particular point along each of three dimensions—the extent to which authority is centralized, overlapping, and coordinated—and careful governance requires recognition of the tradeoffs that each dimensional choice entails. Decentralization, for example, can foster experimentation,

²²⁵ H. Res. 935, 116th Cong. (2020), https://www.congress.gov/bill/116th-congress/house-resolution/935, which the House approved in 2020, would have established a select Subcommittee on the Coronavirus Crisis as an investigative subcommittee of the Committee on Oversight and Reform; Congressman Adam Schiff, Press Release, *Schiff, Feinstein, Harris Introduce Legislation to Establish Bipartisan Coronavirus Commission to Examine U.S. Response*, Apr. 10, 2020, https://schiff.house.gov/news/press-releases/-schiff-feinstein-harris-introduce-legislation-to-establish-bipartisan-coronavirus-commission-to-examine-us-response. *See also* H.R. 6429, 116th Cong., 2d Sess. (2020), https://www.govtrack.us/congress/bills/116/hr6429/text (a bill to establish a legislative National Commission on COVID-19 in the United States).

²²⁶ S. 4204, 116th Cong. (2020); *see also* S. REP. No. 116-279 (2020) (reporting on the proposed Federal Emergency Pandemic Response Act), https://www.congress.gov/congressional-report/116th-congress/senate-report/279.

²²⁷ See, e.g., H.R. 6548, 116th Cong. 2d Sess. (2020), https://www.congress.gov/bill/116th-congress/house-bill/6548/text?r=9&s=1 (a bill to establish a National Commission on the COVID-19 Pandemic in the United States "not just to look back at prior practices and mistakes but to learn lessons as quickly as possible to better protect the United States going forward in the future").

²²⁸ See, e.g., H.R. 6548, supra note 227, § 2(d)(2) (authorizing investigations into "the structure, coordination, management, policies, procedures and actions of Federal, State, and local governments and non-governmental entities relative to preparing for, detecting, preventing, and responding to epidemics and pandemics, whether naturally occurring or caused by a State or non-State actor"); H.R. 6429, supra note 225, § 3(b)(10)-(11) (requiring the Commission to examine, evaluate, and make recommendations concerning "the role and responsibility of, and coordination among, departments and agencies of the United States, including but not limited to, the Department of Health and Human Services, the Centers for Disease Control and Prevention, the Food and Drug Administration, the Department of Homeland Security, the Federal Emergency Management Agency, the Department of Defense, and the National Security Council" and "the nature and extent of communication and coordination between the Federal Government and State, territory, tribal, and local governments; between the Federal Government and the private sector; and between the United States Government and the governments of foreign nations").

²²⁹ See CAMACHO & GLICKSMAN, supra note 13, at 229 (arguing that "decisions concerning how best to allocate or reallocate authority among different government entities are critical to the functioning of government programs").

provide opportunities for diverse strategies, and leverage expertise; centralization may promote economies of scale and uniformity. Overlapping authority can create a safety net in the event of inaction by one authorized entity and creates resistance to agency capture, while distinct authority may eliminate wasteful duplication of effort and lower regulatory commons risks. Coordination, the aspect of structural governance whose absence seems most responsible for the Trump Administration's COVID management failures, can promote pooling of resources or expertise, reduce risks of free-riding and shirking, and minimize the risk of conflicting actions. But independence may minimize administrative costs and groupthink and may promote beneficial inter-governmental competition.

How these competing values balance out is necessarily context-specific. It is also political in the sense that prioritization of values is necessary when different organizational alternatives create a different mix of advantages and disadvantages. In some instances, for example, achieving the efficiency advantages of coordinating authority in ways that enable resource pooling may be deemed more important than groupthink prevention. In other instances, the reverse may be true, suggesting that independent authority would be more desirable than coordination.

Second, the tradeoffs are often unlikely to be the same for all aspects of a problem. Instead, they will typically vary for different governmental functions. Thus, for example, authority to pursue certain functions may best be centralized, such as when promoting economies of scale, ensuring uniform governmental action, or achieving cost internalization is important. The bulk purchase of COVID testing equipment by the federal government is an example of a function that would benefit from economies of scale or resource pooling, 230 while the criteria for approval of vaccines clearly need to be developed and applied uniformly by a federal agency such as FDA. Federal authorities should be responsible for the issuance of travel restrictions to mitigate interstate (and international) spillover costs caused by spread of the virus. Decentralization may be a better fit for other functions, such as when particularized expertise, diversity of approach, or providing opportunities for regulatory experimentation are a significant priority. Inevitably, given the heterogeneity of activities involved in pandemic preparation and response, much of federal pandemic preparation and response will necessarily be decentralized. And both the creation and subsequent dissolution of the Directorate illustrate the value of relying on directed, dedicated expertise in federal pandemic planning and response activities.

Third, it may be possible to mitigate the disadvantages of allocating authority on a dimension by allocating it differently for different functions.²³¹ Overlapping authority in some cases can create a safety net to hedge against inaction by a single responsible entity.²³² It can also

²³⁰ See, e.g., Paul Aubrecht et al., Centralized and Decentralized Responses to COVID-19 in Federal Systems: US and EU Comparisons, at 2 (2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3584182 (arguing that "there may be a need for a 'smart mix' of centralized and decentralized health responses to the [Covid] pandemic," and, for example, that in a federal system, procurement and distribution of medical supplies and equipment "may best be centrally administered in order [to] limit cross border externalities which may spill across the states in a federal system, to take advantage of economies of scale and distribution advantages of a centralized approach, . . . to prevent inefficient competition between states in the procurement of these material goods," and to prevent hoarding).

²³¹ See CAMACHO & GLICKSMAN, supra note 13, at 232 (noting that "there may be opportunities to adjust along a dimension on a function-by-function basis to maximize the advantages at each end of the dimension"); *id.* at 94-99 (explaining how varying the extent of overlap by governmental function and blending it with distinct authority can more effectively leverage the advantages of each end of that dimension of authority).

²³² *Id.* at 42.

make effective capture of agency decisionmakers harder by increasing the entities that must be captured before government policy is crafted to achieve a result desired by a private entity. ²³³ Overlapping authority, however, may lead to inefficient duplication of effort and the issuance of conflicting mandates or advice. ²³⁴ The creation of multiple power centers to deal with pandemic management led to considerable overlapping authority that prompted confusion in disseminating information about matters such as the need for testing of asymptomatic individuals and the scope of the risks posed by airborne transmission of the virus. ²³⁵ Overlap also may prompt inaction if multiple authorized entities await action by another such entity. If inaction is accompanied by finger-pointing when problems are not being effectively managed, accountability is impaired. ²³⁶

Policymakers need to be cognizant of these tradeoffs. They should be careful to rely on overlap only for functions where the safety net and anti-capture benefits are particularly vital such as in pandemic planning. With respect to response, overlapping authority to perform functions such as developing scientific information, analyzing data, and enforcing regulatory standards may create a desirable safety net to alleviate the risks of inaction by any one entity. In a context such as responding to public health crises that requires rapid government action, however, the stasis and languidity that overlap may induce are exactly the opposite of what is needed. Overlapping pandemic planning authority therefore might best be accompanied by clear and distinct authority for most functions in the thick of emergency pandemic response to help reduce the adverse effects of conflicting mandates and inaction. It may be desirable, for example, to create distinct authority for functions such as information dissemination and restrictions on travel to foster efficient resource allocation or avoid conflicting mandates. Further, the alternatives along each of the allocation dimensions are rarely simple binary choices. In particular, the choice of the extent of overlap is a continuum, allowing policymakers to choose not merely between overlapping or distinct authority but also between more and less overlap. As a result, policymakers may be able to reduce inefficiency costs from overlap while still maintaining some overlapping authority (and the resulting redundancy advantages).²³⁷

Fourth, it also may be possible to mitigate the disadvantages of allocating authority along one dimension through the allocation chosen along a different dimension.²³⁸ For instance, while coordinated authority has stand-alone advantages and disadvantages as compared to independent authority, policymakers also can leverage a range of different forms of coordination to mitigate some disadvantages of inevitably overlapping authority (such as between state and federal

²³³ Id

²³⁴ See Jacob E. Gersen, Overlapping and Underlapping Jurisdiction in Administrative Law, 2006 SUP. Ct. Rev. 201, 214; Jason Marisam, Duplicative Delegations, 63 ADMIN. L. Rev. 181, 223 (2011).

²³⁵ See supra notes 146-64 and accompanying text.

²³⁶ See Todd S. Aagaard, Regulatory Overlap, Overlapping Legal Fields, and Statutory Discontinuities, 29 VA. ENVTL. L.J. 237, 288 (2011) ("Regulatory overlap thus may lead each regulator to shirk ... within an area of overlapping jurisdiction."); David E. Adelman & Kirsten H. Engel, Adaptive Federalism: The Case Against Reallocating Environmental Regulatory Authority, 92 MINN. L. REV. 1796, 1809 n.54 (2008) (citing William W. Buzbee, Recognizing the Regulatory Commons: A Theory of Regulatory Gaps, 89 IOWA L. REV. 1, 30-33 (2003)) (noting "the accountability risk that comes with regulatory overlap: namely, the potential that it will appear that no one is in charge and hence regulatory inaction will result").

²³⁷ See CAMACHO & GLICKSMAN, supra note 13, at 41-43.

²³⁸ See, e.g., id. at 232 (asserting that "policymakers will find opportunities to adjust one dimension of authority to address or reduce shortcomings of another").

response agencies). Judicious hierarchical coordination, for instance, can help mitigate duplication, conflict, and inaction from overlapping authority.²³⁹

Similarly, if policymakers choose a decentralized structure to provide pandemic management, its effectiveness will often depend on whether the various responsible entities with pandemic response authority act in coordination with one another. As previously demonstrated, the Trump Administration failed to provide even a minimally sufficient level of coordination in either pandemic planning or response, which both exposed the disadvantages of the decentralized authority while largely failing to tap its advantages. Decentralized planning has the capacity to leverage the expertise of different federal agencies and of state and local officials, but if the information and insights gleaned from those sources are not integrated into a coordinated planning effort, the resulting plans may have gaps or inconsistencies that hinder effective implementation. Decentralized (and overlapping) authority among federal agencies over various aspects of the COVID response, such as the development of testing protocols or the distribution of vaccines, contributed to the spread of the virus. In contrast, carefully decentralized but coordinated authority would likely have better leveraged the experimentation, expertise, and diversity advantages of decentralization while minimizing risks of inconsistencies or conflicting responses to the pandemic.

Fifth, perhaps the most pronounced lesson from federal planning for and response to COVID-19 relates to the heterogeneity of inter-governmental coordination. Unlike the other two dimensions, coordination does not simply toggle between more or less. Rather, the extent of coordination depends on a range of factors such as the form of communication, the extent of its formality, its frequency, its mandatory or discretionary nature, and its hierarchical or nonhierarchical character. Because of the availability of these various forms of intergovernmental coordination, it is important to analyze not only whether coordinated or independent authority is desirable, but also the tradeoffs of choosing among these various types of coordination. In other words, electing to coordinate government institutions is only the first step. Various successive choices follow about the form and extent of coordination that are critical to its success.

These tradeoffs may cut in different directions for various aspects of pandemic planning and response. For example, because pandemic planning typically takes place over a longer time horizon than response does, a collaborative process, in which decisions are reached by consensus by implicated governmental entities, may allow for a wide range on input by entities with differing perspectives, experience, and expertise. The 2017 National Defense Reauthorization Act²⁴⁴ established just such a collaborative planning process. The Act required the Secretaries of Defense, HHS, Homeland Security, and Agriculture to jointly develop a national biodefense strategy and

²³⁹ CAMACHO & GLICKSMAN, *supra* note 13, at 232.

²⁴⁰ "The result was a leadership vacuum that led to an absence of a truly coordinated anti-COVID-19 effort led by the federal government." Berman, *supra* note 65, at 79.

²⁴¹ See supra notes 119-20 and accompanying text.,

²⁴² See CAMACHO & GLICKSMAN, supra note 13, at 45-46.

²⁴³ Camacho & Glicksman, *supra* note 33, at 58 (urging policymakers to consider "various forms of coordination, each of which will have its own set of costs and benefits").

²⁴⁴ See supra notes 81-83 and accompanying text.

associated implementation plan.²⁴⁵ The statutory directive to these cabinet Secretaries to issue a joint strategy and plan required all three agencies to agree on their contents.²⁴⁶ This is a horizontal form of coordination, in which adopting a plan depends on consensus and each agency in effect has a veto over the capacity of the others to dictate its contents. Such horizontal forms of coordination may also be good choices when uniformity is less of a priority or when there is less reason to expect or be concerned about free riding without hierarchical dictates.²⁴⁷

Hierarchical authority, in which one agency or official has the power to dictate government-wide compliance and response, is a better choice for those aspects of pandemic response that require rapid action, such as distribution of testing equipment or vaccines. Vesting in one institution the authority to dictate the actions of other agencies is almost certainly the swiftest coordination alternative (with the possible exception of distinct, centralized authority) for implementing urgent functions, like the allocation of scarce medical supplies to the places that most urgently need them. Before the Biden Administration began, his transition team announced that the new administration would request that state governors issue mandatory mask directives with which local governments would have to comply.²⁴⁸ While the collaboration between the federal government and the states would be not be hierarchical, the duty of localities to implement state-issued mask mandates would be.

Besides the level of synchronization, coordination also can be formal or informal; long or short-term; voluntary or mandatory, cooperative or adversarial; and frequent or occasional. Each of these choices raises different tradeoffs for policymakers. In a fast-moving situation like responding to a viral pandemic, frequent information sharing is essential. ²⁴⁹ In other, slower-paced situations, such as planning strategies for before then commencement of an outbreak, the lesser need for frequent communication may not justify the expense of conducting it. Similarly, many would consider it essential for a federal agency to mandate adherence by all the states with travel restrictions that are designed to slow the spread of the virus. However, the need for mandatory coordination may be less important in areas such as how to prioritize the individuals entitled to receive a COVID vaccine. Voluntary coordination is also an appropriate choice for certain forms of information exchanges in formulating response plans. For example, states and localities should have the opportunity but not the obligation to comment on proposed federal pandemic response plans. Federal officials responsible for developing such plans, however, should be required to solicit input from all affected entities.

The requirement that executive agencies share information on biological outbreaks at the response phase of pandemic management²⁵⁰ is a weaker but longer-term form of horizontal coordination. The provision of the 2017 Act mandating that the plan provide for improved and

²⁴⁵ Pub. L. No. 114-238, § 1086 130 Stat. 2000, 2423-24 (codified at 6 U.S.C. § 104).

²⁴⁶ *Id.* § 1086(a).

²⁴⁷ See Erin O'Hara O'Connor & Larry E. Ribstein, *Preemption and Choice-of-Law Coordination*, 111 MICH. L. REV. 647, 658 (2013) ("States' ability to coordinate . . . often reduces or eliminates the need for federally imposed uniformity. . . .").

²⁴⁸ Biden Plan, *supra* note 109.

²⁴⁹ See, e.g., Parker at al., Still No Plan, supra note 204 ("One Trump adviser said that the [Centers for Disease Control] has not provided local officials with enough data about what is happening nationwide.").
²⁵⁰ Id. § 1086(b)(4).

formalized interagency coordination and support mechanisms²⁵¹ makes it clear that this type of coordination may not be informal, but otherwise fails to specify the respective roles of the four Departments or of the other federal agencies subject to the strategy and plan. Giving one agency, such as CDC, HHS, or FEMA, the authority to direct other public and private entities in the distribution of available medical supplies and equipment such as tests, masks, ventilators, or vaccines during a response would be a more hierarchical form of coordination for that particular task.²⁵²

2. Reconfiguring Federal COVID-19 Planning and Response

The Trump Administration's allocational failures preceding and during the COVID-19 pandemic suggest a number of possible reconfigurations that draw on these lessons to parse some of the allocational dimensions of authority and distinguish across governmental functions.

Decentralized Federal Planning. A simple but devastating lesson of the COVID-19 pandemic is that a federal presence in pandemic planning is crucial. In this sense, some amount of centralization in planning is vital for leveraging economies of scale and promoting uniformity among the myriad of regulatory and management authorities at the local, state, and federal levels that can influence the nation's ability to prepare for public health crises. Nonetheless, it perhaps is also inevitable, in light of the broad and disparate nature of pandemics, that there be some if not significant decentralization of authority. In fact, the disbandment of the Global Health Security and Biodefense Directorate illustrates that the lack of a "point" agency dedicated to pandemic planning can create regulatory neglect.²⁵³ Some level of decentralization in planning can also leverage a wide range of agency expertise, lead to tailored planning strategies, and allow opportunities for governmental innovation and experimentation in planning.²⁵⁴ These effectiveness benefits appear to be worth sacrificing any efficiency losses resulting from the loss of economies of scale. They are especially worth pursuing on matters for which the uniformity benefits of centralization are not critical.

Decentralized Federal Response. As it did with planning, the dissolution of the Directorate demonstrated both the need for a federal presence but also the value of a specific federal authority expressly assigned to promoting response, i.e., the implementation of pandemic planning. Indeed, the need for rapid deployment of response strategies weighs even stronger for reliance on decentralized response in order to tap a broader range of capabilities across government activities and regulatory sectors. In such instances, the expertise, experimentation, and diversity benefits of decentralized authority may be especially valuable. CDC, for example, may be the best choice to disseminate consistent and up-to-date information about the risks of virus spread and the best ways to stem those risks, while FEMA's experience and expertise may favor putting it in charge of

²⁵¹ *Id.* § 1086(b)(7).

²⁵² Cf. CAMACHO & GLICKSMAN, supra note 13, at 46 (explaining that "providing a governmental authority a de facto or express veto power over the activity of another authority" is "a more hierarchical form of coordination").

²⁵³ See supra notes 101-10 and accompanying text.
²⁵⁴ Cf. Caitrin Reilly, When in Louisiana, Do As the French Do: The Case for Integrated River Basin Management in Louisiana, 30 Tul. Envtl. L.J. 41, 50 (2016) (noting that water management in France "emphasizes deconcentration and decentralization, which allows for management plans tailored to the needs of specific basins and input from all water users").

distribution of medical supplies to areas ravaged by a pandemic. ²⁵⁵ Relatedly, authority can be structured to leverage public institutions in ways that leverage their relative institutional competencies. For example, more decentralized institutions can be assigned authority over certain functions with a more local footprint, while centralized institutions can be employed to deal with larger-scale issues (e.g., matters more prone to cross-jurisdictional externalities) or issues for which uniform approaches or solutions are particularly important (e.g., development of standards for approval of vaccines).

Overlapping Planning. Though it might lead to increased inefficiencies due to duplication of effort, there are significant reasons to support reliance on a more overlapping configuration of federal pandemic planning. Designed correctly, a decentralized, overlapping planning regime can promote interagency accountability and serve as a regulatory safety net that can limit the risk of regulatory inaction. ²⁵⁶ In other words, the expectation is that the effectiveness gains of overlapping federal planning authority are likely to outweigh the efficiency costs from duplication.

More Distinct Authority for Certain Response Actions. At least in some circumstances, however, the tradeoffs in pandemic response may tilt toward more distinct allocations of authority. The need for prompt, decisive action may lean toward more exclusive authority that reduces wasteful duplication or risks of a regulatory commons. The Trump Administration blamed the slow rollout of the COVID vaccines on the states.²⁵⁷ Had applicable law or a federal pandemic plan made it clear than a federal agency such as CDC or FEMA was exclusively responsible for rapid and equitable distribution of vaccines, that kind of hand washing of responsibility would not have been possible (or at least would have been even less credible). Besides concerns regarding efficiency, less overlap can help avoid regulatory conflict and inconsistency.²⁵⁸ Nonetheless, in some circumstances it might make sense to provide for some regulatory redundancy over response actions, for example, when one anticipates that duplicative regulatory authority will increase the likelihood of government action. Allowing states to negotiate with pharmaceutical companies for the purchase of testing and other needed medical equipment, for instance, creates a safeguard against the risk that the President will refuse to invoke the Defense Production Act to bolster the production and distribution of such supplies.²⁵⁹

Horizontally Coordinated Planning. A key lesson of the COVID-19 pandemic is that effective interagency and inter-governmental coordination is vital for pandemic planning. Yet the form of coordination is key to leveraging the advantages of decentralized and overlapping authority. Largely horizontal coordination of planning allows the pooling of resources and expertise and often will adequately advance concerns of lack of uniformity or harmonization that

²⁵⁵ During the 2020-2021 presidential transition, the Biden transition team indicated that it intended to enhance the role of FEMA, an agency whose raison d'étre is disaster response, in distribution of the COVID vaccines. Thomas Frank, *Biden to Deploy FEMA for Vaccine Distribution*, CLIMATEWIRE (Jan. 4, 2021), https://www-eenews-net.gwlaw.idm.oclc.org/climatewire/stories/1063721633/print.

²⁵⁶ Cf Walter G. Johnson, Note, Conflict over Cell-Based Meat: Who Should Coordinate Agencies in U.S. Biotechnology Regulation?, 74 FOOD & DRUG L.J. 478, 489–90 (2019) ("Congress frequently assigns agencies authority and responsibilities that overlap in substantive areas. Scholars list various reasons for this phenomenon, often arguing that the overlap offers benefits in effectiveness, interagency accountability, and avoiding stagnation."). ²⁵⁷ See supra note 220 and accompanying text.

²⁵⁸ CAMACHO & GLICKSMAN, *supra* note 13, at 40.

²⁵⁹ See supra notes 116-18 and accompanying text.

can arise from decentralized and/or overlapping jurisdiction. ²⁶⁰ Contributing factors to the Trump Administration's failure to engage in effective horizontally coordinated planning include: (1) dismissal of the Obama Administration pandemic Playbook; (2) the failure to heed the lessons of its own Crimson Contagion exercise, which called out the need for further examination of "how federal interagency partners will coordinate with one another on a variety of pandemic influenza-specific response activities"; ²⁶¹ (3) its disbandment of the Directorate for Global Health Security and Biodefense Directorate, which had been well positioned to lead a coordinated intergovernmental planning effort; and (4) the lack of clear guidance to state and local governments about how to integrate their plans with those of the federal government. By creating a vacuum at the federal level and largely leaving the states to their own devices, the administration undermined accountability for planning responsibilities and set the stage for the piecemeal response efforts that followed. Re-establishing horizontally coordinated federal planning is vital.

Hierarchically Coordinated Response. In some contexts, independently exercised authority can diminish the risk of groupthink, spur innovation, or generate productive competition among agencies. Allowing independent action, such as state mask or social distancing requirements that the federal government is unwilling to impose, may be preferable to certain forms of coordination (such as required federal-state harmonization that may decelerate rather than accelerate governmental action or hierarchical coordination that requires states to accept safeguards they deem inadequate). Independently allocated authority is ill-suited, however, to functions such as information distribution, given the need to avoid confusion resulting from the dissemination of inconsistent information about the nature of health risks and the best ways to address them. Discrepancies in government advice on whether to wear masks, for example, created considerable confusion. Independent authority would also appear to be a disastrous choice in triage situations, where it is important, for example, to allocate medical equipment to the areas hardest hit by disease. The competition among the states for access to ventilators drove up the price of that equipment and hampered the ability of some of the hardest hit states, like New

²⁶⁰ See John D. Blum & Jordan Paradise, *Public Health Preparedness & Response: An Exercise in Administrative Law*, 20 DEPAUL J. HEALTH CARE L. 1 (2018):

Responses to epidemics, pandemics, and other biological disasters require multiple coordinated initiatives that combine sophisticated planning, sound emergency management, effective stockpiles, solid geographic information systems, well-developed laboratory surveillance and response, and effective management capabilities. Critical to the noted elements of planning and response is the existence of a legal structure, which underpins the operations of necessary programs. While the law may not be the first public health tool considered in a disaster, it is fundamental to the effective functioning of multiple actors and must be harmonized across jurisdictional lines.

See also id. at 8 ("The massive amount of coordination across public and private actors in the face of biological catastrophes makes preparation and response planning a critical regulatory function.").

²⁶¹ Crimson Contagion, *supra* note 189, at 46.

²⁶² CAMACHO & GLICKSMAN, *supra* note 13, at 47-48.

²⁶³ See, e.g., Leslie E. Gerwin, *Planning for Pandemic: A New Model for Governing Public Health Emergencies*, 37 Am. J.L. & MED. 128, 143 (2011) (contending that "the surfeit of information sources leave[s] us . . . skeptical and confused about the accuracy of conflicting claims").

²⁶⁴ See, e.g., Christina Farr, Why Scientists Are Changing Their Minds and Disagreeing During the Coronavirus Pandemic, CNBC, May 23, 2020, https://www.cnbc.com/2020/05/23/why-scientists-change-their-mind-and-disagree.html; Zeynep Tufekci, Jeremy Howard & Trisha Greenhalgh, The Real Reason to Wear a Mask, THE ATLANTIC, Apr. 22, 2020, https://www.theatlantic.com/health/archive/2020/04/dont-wear-mask-yourself/610336/.

York, to procure the equipment they needed. 265 Coordinated distribution of that equipment could have minimized those problems. The bipartisan Blue Ribbon Study Panel on Biodefense (cochaired by former Democratic Vice Presidential candidate Joseph Lieberman and Republican Tom Ridge, the first Secretary of DHS) recognized the need to consider the appropriateness of coordinating on a function-by-function basis. In its 2015 report, it decried the lack of coordination across a range of biodefense-related functions, including information gathering, information dissemination, monitoring, financing, and implementation of containment strategies. 266 The COVID-19 pandemic thus painfully illustrated the imperative of coordinated inter-agency and inter-governmental response to implement pandemic planning. As noted above, however, deciding that coordination is required only begins to determine the appropriate allocations of authority. Policymakers should also consider the appropriate form of coordination. Although collaborative, horizontal coordination may work well for pandemic planning, for reasons described above, a different, more hierarchical form of coordination is more likely to promote effective pandemic response action.

VI. CONCLUSION

Perhaps understandably, much of the discussion of the failed handling of the COVID-19 pandemic has focused on the Trump Administration's tardy,²⁶⁷ callous,²⁶⁸ reckless,²⁶⁹ uninformed,²⁷⁰ and discriminatory response.²⁷¹ Given these failings, even a rationally conceived and thoughtful allocation of authority may not have avoided a significant number of cases and deaths. Unfortunately, attending to the allocation of government authority alone is rarely if ever going to be sufficient to guarantee prevention of a pandemic or even effective response to an outbreak. Even a well-structured allocation may fail if the tools allocated to government institutions are deficient; if agency personnel and other government leaders are hostile to scientific evidence; if key Executive officials like the President are indifferent to the programs they are charged with implementing; or if Congress fails to provide the resources to allow effective

²⁶⁵ See Ruthann Robson, Positive Constitutionalism in A Pandemic: Demanding Responsibility from the Trump Administration, 12 ConLawnow 15, 20 (2020) ("Perhaps most chaotic has been the Administration's actions and inactions regarding necessary medical equipment, including ventilators to assist patients in breathing and personal protective equipment (PPE) for medical and other personnel to prevent them from becoming infected."); Olorunnipa, Dawsey & Abutaleb, supra note 146 ("Some states are still struggling to procure testing kits and supplies for the kits, including swabs, and have pleaded for the federal government to play a larger role in coordinating purchases, resolving supply shortages, and distributing the kits.").

²⁶⁶ BLUEPRINT FOR BIODEFENSE, *supra* note 128, at 11-12, 26. The Panel regarded coordination as a vehicle for prioritizing needed activities, designating responsibilities, and ensuring accountability. *Id.* at 12. It did not, however, distinguish among the different forms of coordination.

²⁶⁷ See, e.g., Trump Was Too Slow in Virus Response: Poll, AGENCE FRANCE PRESSE, Apr. 16, 2020, https://www.barrons.com/news/trump-was-too-slow-in-virus-response-poll-01587086405.

²⁶⁸ See, e.g., Glenn C. Altschuler, *The Crude and Callous Coronavirus Calculation of Chris Christie and Donald Trump*, THE HILL, May 10, 2020, https://thehill.com/opinion/white-house/497004-crude-and-callous-coronavirus-calculation-of-christie-and-trump.

²⁶⁹ See, e.g., Ed Pilkington, Trump Death Clock Seeks to Bring 'Accountability for Reckless Leadership', THE GUARDIAN, May 6, 2020, https://www.theguardian.com/world/2020/may/06/trump-death-clock-coronavirus-us.

²⁷⁰ See Aja Romano, A New Investigation Reveals Trump Ignored Experts on Covid-19 for Months, Vox (Apr. 12, 2020), https://www.vox.com/2020/4/12/21218305/trump-ignored-coronavirus-warnings.

²⁷¹ Eric Lipton et al., *He Could Have Seen What Was Coming: Behind Trump's Failure on the Virus*, N.Y. TIMES, Apr. 11, 2020 (updated May 11, 2020), https://www.nytimes.com/2020/04/11/us/politics/coronavirus-trump-response.html?action=click&module=Spotlight&pgtype=Homepage.

administration. Moreover, some problems may be resistant to pre-planned, structured analysis and response. There may be relatively little the government can do, to pick an extreme example, to prepare for a collision between the Earth and a massive asteroid, even if astronomers warn policymakers of the impending disaster.

Nonetheless, the Trump Administration's confused and confusing allocation of authority over both pandemic planning and response made delay, inefficiency, and ineffectiveness almost inevitable. Those structural mistakes hold important lessons. By choosing appropriate allocations of authority along each of the three dimensions and differentiating allocations functionally, policymakers may be able to alleviate some of the dysfunctions that contributed to the Trump Administration's chaotic and ineffective efforts to plan for and respond to the COVID-19 pandemic. If so, the governmental planning and response to the next public health crisis may be more effective.

Public and private institutions can and should prepare for and seek to minimize the uncertainty and disorder that accompany emergencies such as viral pandemics through vigilant planning and adaptive response. Effective disaster planning and response are not limited to designing effective substantive strategies or decision-making processes. They also include structuring authority to leverage public institutions in ways that tap their relative advantages and minimize their limitations—perhaps allocating overlapping authority for functions that particularly need safety net redundancies or deploying clear coordination mechanisms (particularly in pandemic response, where hierarchical coordination is critically important) to help promote prompt, efficient, and consistent action. Such allocations may not only leverage relative institutional competencies but also help public institutions manage uncertainty and promote adaptive response. 273

Because it is unlikely that future crises will replicate the COVID-19 outbreak in all or even most respects, approaches that might have worked better in reacting to this virus will not necessarily be the optimal ones for the next crisis. Instituting a public system of periodic monitoring and adjustment of decisions about how to allocate authority among relevant government officials, however, can further reduce uncertainties and promote learning. Many have called for integration of periodic monitoring and adaptive management mechanisms in decision-making *processes* to manage uncertainty and develop more effective *substantive* strategies, 274

²⁷² See Caner Hamarat et al., Adaptive Policymaking Under Deep Uncertainty: Optimal Preparedness for the Next Pandemic, Proceedings of the 30th International Conference of the System Dynamics Society (2012) (transcript available at https://proceedings.systemdynamics.org/2012/proceed/papers/P1386.pdf) (noting that "[f]or an uncertain and complex future, adaptivity and flexibility should be the main aim for designing robust policies"); see also Fikret Berkes, Understanding Uncertainty and Reducing Vulnerability: Lessons from Resilience Thinking, 41 NAT. HAZARDS 283, 287 (2005) (discussing how focusing on adaptive management, or learning-by-doing, can support efforts to deal with uncertainty in crisis).

²⁷³ See Alejandro E. Camacho, *De- and Re-constructing Public Governance for Biodiversity Conservation*, 73 VAND. L. REV. 1585 (2020).

²⁷⁴ See, e.g., Int'l Inst. for Applied Sys. Analysis, Adaptive Environmental Assessment and Management 1 (C.S. Holling ed., 1978); Panarchy: Understanding Transformations in Human and Natural Systems 3 (Lance H. Gunderson & C.S. Holling eds., 2002); George H. Stankey et al., U.S. Dep't of Agric., Adaptive Management of Natural Resources: Theory, Concepts, and Management Institutions 31–33 (2005), www.fs.fed.us/pnw/pubs/ pnw gtr654.pdf.

including in disaster planning and response.²⁷⁵ And one of us has also called for application of such a learning infrastructure at a more macro level, i.e., for monitoring and assessing program and agency performance.²⁷⁶ Our book also recommends, however, the creation of a framework for promoting *structural* adaptive governance that designates authority to a public agency to periodically monitor and assess the efficacy of allocational choices (here, for pandemic planning and response).²⁷⁷ Any changes that policymakers choose to improve pandemic preparedness and response capacity should be flexible enough to adjust if past or current experience reveals that an aspect of the structure of the government's public health mechanisms is not providing efficient, effective, equitable, or accountable governance.

The Trump Administration's planning and response to the COVID-19 pandemic make clear that poorly designed programs are likely to create significant barriers to success. As policymakers craft mechanisms to improve the government's capacity to address future public health crises, their goal should be to make organizational choices that facilitate rather than hinder effective pandemic responses. President John Kennedy often repeated a popular mistranslation²⁷⁸ of a Chinese maxim that crisis requires awareness of danger, but also allows recognition of opportunity.²⁷⁹ As devastating as the current pandemic has been and promises to be, policymakers should seize upon the opportunity to transform lessons learned into efforts to adjust the institutions of government to better respond to public harms, if not prevent an epidemic in the first place.

²⁷⁵ See Daniel A. Farber, Catastrophic Risk, Climate Change, and Disaster Law, 16 ASIA PAC. J. ENVTL. L. 37, 48-49 (2013) (arguing that disasters should be viewed as cyclical so that decision-makers can learn from past disasters, adapt policies to be more resilient in the future, and generate viable policy options in the face of uncertainty); Craig Anthony (Tony) Arnold, Adaptive Law, in RESEARCH HANDBOOK ON CLIMATE DISASTER LAW 169, 177 (Rosemary Lyster & Robert R.M. Verchick eds., 2018) (discussing legal tools for promoting adaptation, including "regulations, contracts, and procedural rules to implement adaptive policies and strategies"); Charles R. Wise, Organizing for Homeland Security After Katrina: Is Adaptive Management What's Missing?, 66 Pub. ADMIN. Rev. 302, 306-07 (2006) (arguing that homeland security requires adaptive management, including for "professionals at various levels to work across boundaries, plan and negotiate future activities, and communicate during operations to resolve unanticipated problems").

²⁷⁶ See Alejandro E. Camacho, Adapting Governance to Climate Change: Managing Uncertainty Through a Learning Infrastructure, 59 EMORY L.J. 1, 64-76 (2009). Cf. David L. Markell & Robert L. Glicksman, Dynamic Governance in Theory and Application, Part I, 58 ARIZ. L. REV. 563, 566 (2016) (providing a "conceptual framework to assist policymakers seeking to design regulatory structures likely to produce effective governance in dynamic circumstances"); Riyanti Djalante et al., Adaptive Governance and Managing Resilience to Natural Hazards, 2 INT'L J. DISASTER RISK SCI.1, 10 (2011) (outlining how adaptive governance, described as "polycentric and multilayered institutions, participation and collaboration, self-organization and networks, and learning and innovation," can support resilience in disaster risk reduction efforts).

²⁷⁷ CAMACHO & GLICKSMAN, *supra* note 13, at 236. We suggest delegating the authority to engage in these tasks to a new "learning infrastructure" agency or to an existing, relatively nonpartisan entity such as the Government Accountability Office.

²⁷⁸ See Victor H. Mair, danger + opportunity ≠ crisis: How a misunderstanding about Chinese characters has led many astray, PīNYĪN.INFO, http://www.pinyin.info/chinese/crisis.html (last visited June 8, 2020). The translation reflected in President Kennedy's campaign speeches has nevertheless become a popular meme and "favorite rhetorical device of public figures across the political spectrum." Benjamin Zimmer, Crisis = Danger + Opportunity: The Plot Thickens, LANGUAGE LOG (March 27, 2007),

http://itre.cis.upenn.edu/~myl/languagelog/archives/004343.html.

²⁷⁹ Senator John F. Kennedy, *Speech at the 1959 Convocation of United Negro College Fund, Indianapolis, Indiana, April 12, 1959*, http://www.jfklibrary.org/asset-viewer/archives/JFKSEN/0902/JFKSEN-0902-023. (last visited June 8, 2020).