

Public Trust, Public Health, and Public Safety: A Progressive Response to Bioterrorism

Sam Berger*
Jonathan D. Moreno**

In the wake of the terrorist strikes on September 11, 2001, the country has taken a hard look at its preparedness in the event of another attack. One potential threat is that terrorists will release a biological agent capable of causing mass sickness or death. While there has been significant public attention given to “suitcase nukes,” less attention has been paid to this far more credible threat. In fact, the first terrorist attack after the destruction of the Twin Towers was a biological attack, in which anthrax was mailed to news media offices and congressional offices, resulting in five deaths.¹ The bipartisan Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism (the WMD Prevention Commission) recently concluded that “terrorists are more likely to . . . obtain and use a biological weapon than a nuclear weapon,”² an assessment with which the then-Director of National Intelligence agreed.³ Given these judgments, policymakers are right to seriously consider potential responses to a biological attack.⁴

In the event of a biological attack, the public health system will be the primary means of containing the spread of a biological agent. By the public health system, we mean the vast number of governmental and nongovernmental entities concerned with maintaining public health, including hospitals, community health clinics, state and local health departments, epidemiological labs, and research centers.⁵ These entities combat a wide range of health threats, from emergencies resulting from natural or man-made disasters to daily non-emergency health problems. After an attack, the

* J.D., Yale Law School, 2010. We would like to thank Joe Pace, Christen Linke Young, Meredith Meacham, and the *HLPR* editors for their insightful comments and advice on earlier drafts.

** David and Lyn Silfen University Professor and Professor of Medical Ethics and of the History and Sociology of Science, University of Pennsylvania.

¹ See COMM'N ON THE PREVENTION OF WMD PROLIFERATION & TERRORISM, *WORLD AT RISK* 6–7 (2008) [hereinafter *WMD PREVENTION COMM'N*], available at http://www.preventwmd.gov/static/docs/report/worldatrisk_full.pdf.

² *Id.* at xv.

³ See Mike McConnell, Dir. of Nat'l Intelligence, Remarks at the John F. Kennedy Jr. Forum at Harvard University 8 (Dec. 2, 2008), available at http://www.dni.gov/speeches/20081202_speech.pdf.

⁴ Some public health scholars and national security experts have challenged the notion that biological attacks pose a serious risk to the public. See, e.g., George J. Annas, *Puppy Love: Bioterrorism, Civil Rights, and Public Health*, 55 *FLA. L. REV.* 1171, 1174–78 (2003); Victor W. Sidel et al., *Good Intentions and the Road to Bioterrorism Preparedness*, 91 *AM. J. PUB. HEALTH* 716, 716–17 (2001).

⁵ See SARAH A. LISTER, CONG. RESEARCH SERV., *AN OVERVIEW OF THE U.S. PUBLIC HEALTH SYSTEM IN THE CONTEXT OF EMERGENCY PREPAREDNESS* 3 (2005), available at <http://www.fas.org/sgp/crs/homesec/RL31719.pdf>.

public health system will be responsible for identifying the biological agent, monitoring the spread of the disease, treating the afflicted, and coordinating the various health responses to the attack—the same role it provides in addressing a wide range of health problems. While first responders and military personnel will certainly be involved, primary responsibility for disease management will lie with public health officials.

Recognizing the importance of an effective public health response to a bioterrorist attack, public health scholars have proposed several possible models to shape that response. The progressive community has been divided between two of these response models, which, based on the respective methods of each approach, we call the coercive model and the cooperative model.⁶ The coercive model relies on aggressive measures such as quarantines, confinements, mandatory vaccinations, and other forceful methods to contain the spread of disease. This model is typified by the Model State Emergency Health Powers Act (MSEHPA), which scholars at Georgetown and The Johns Hopkins Universities developed shortly after the 9/11 attacks. The MSEHPA grants public health officials broad police powers in the wake of a biological attack.⁷ In contrast, other public health scholars have proposed a cooperative model that better respects civil rights and nurtures public trust of health officials in order to encourage compliance with reasonable emergency measures.⁸ Proponents of this model believe that public health officials should provide clear and accurate information to the public in the event of an attack and should structure health responses to be as respectful of individual rights as possible.

The two models are not wholly incompatible, and public health responses may require some mix of coercive and cooperative measures depending in part on the characteristics of the biological agent in question, including its virulence, transmissibility, incubation period, and so on. However, in some situations, policymakers must make a choice to emphasize one approach. Utilizing coercive measures on a broad scale can erode public trust, which in turn undermines cooperative efforts. Each model also may result in different resource allocations. These resource allocations can have large effects on the public health infrastructure's ability to respond to other public health problems, depending on whether resources are narrowly targeted toward bioterrorism responses or are more broadly employed to improve the public health system as a whole—a concept known as dual use.⁹

⁶ The term “coercive” is not intended to be pejorative, but rather is derived from the public health literature's description of the types of methods favored by the model. See, e.g., Lawrence O. Gostin et al., *The Law and the Public's Health: A Study of Infectious Disease Law in the United States*, 99 COLUM. L. REV. 59, 102 (1999).

⁷ See James G. Hodge, Jr. & Lawrence O. Gostin, *Protecting the Public's Health in an Era of Bioterrorism: The Model State Emergency Health Powers Act*, in *IN THE WAKE OF TERROR: MEDICINE AND MORALITY IN A TIME OF CRISIS* 17, 19 (Jonathan D. Moreno ed., 2003).

⁸ See George J. Annas, *Terrorism and Human Rights*, in *IN THE WAKE OF TERROR*, *supra* note 7, at 33, 43.

⁹ Certain types of improvements, such as updating communication technology, providing basic equipment to public health facilities, or increasing the size of the public health

Finally, the model selected will affect the mindset of public health officials during a crisis, determining how they initially approach the situation, how they interact with other government personnel, and what measures they consider reasonable.

A comparison of the two approaches suggests that the cooperative model would allow for a more effective response to a bioterrorist attack. First, coercive models have not been particularly successful. They are difficult to implement and reflect outdated notions of the most pressing concerns following an attack. Worse yet, use of coercive methods will likely decrease the very public trust necessary to make them effective. And by diverting resources from dual use methods, coercive models will distract officials from generally strengthening the public health system to ensure that it is both broadly capable of responding to a health emergency and is built on trust between institutions and the populations they serve. While public health scholars who support the coercive model are well aware of the need to improve the public health infrastructure, their focus on establishing legal parameters for coercive methods instead of strengthening public health institutions provides a seemingly easy political fix that ignores larger systemic needs.

Examining the models through the lens of a progressive bioethics framework provides additional reasons for supporting the cooperative model. While the question of the appropriate response to a bioterrorist attack may seem to be only one of efficacy, it is also an issue of ethics. The debate between proponents of each of these models concerns the extent to which we should protect civil liberties in the wake of an attack. These considerations are particularly acute for bioethicists, as the discipline has long placed heavy emphasis on the protection of individual rights. Bioethics arose in part as a means of advancing the rights of patients and their families to make crucial medical decisions that had previously been left to medical professionals.¹⁰ And bioethics has also played an important role in the protection of individual rights in a national security context, particularly the struggle between patient rights and military imperatives.¹¹ Thus, the concerns about the clash of individual rights and security raised by the two public health response models are at their core bioethical issues. The cooperative model, with its focus on protecting individual rights, addressing practical problems, and reshaping institutions to be more responsive to individual concerns, reflects deeply held progressive values, providing further reason to support it.

workforce, can benefit a wide range of public health efforts, thus making them particularly cost-effective investments.

¹⁰ Sam Berger & Jonathan D. Moreno, *Bioethics Progressing*, in *PROGRESS IN BIOETHICS: SCIENCE, POLICY, AND POLITICS* 3, 15 (Jonathan D. Moreno & Sam Berger eds., 2010).

¹¹ In fact, in the early years of bioethics, the military was the site of far more advanced discussions about limits on human experimentation than the civilian medical community, although ultimately the military's formal rules for human experiments were only sporadically followed. Jonathan D. Moreno, *Bioethics and the National Security State*, 32 *J.L. MED. & ETHICS* 198, 204 (2004).

Part I of this Article discusses the coercive model of public health preparedness, outlining its use of traditional public health powers and describing a current proposal for responding to public health emergencies such as a bioterrorist attack. We then discuss critiques of this model, suggesting that a cooperative model will be more effective in responding to bioterrorism. Part I concludes by explaining the difficulty in pursuing both models simultaneously, suggesting the need to emphasize a cooperative model alone. Part II argues that in addition to being a more efficacious means of responding to a bioterrorist attack, the cooperative model is also better aligned with progressive bioethical values. The model strongly protects individual rights, ensures that institutions are more responsive to individuals, and allows policymakers to focus on a wide range of pressing public health problems that should be addressed. Part III addresses the implementation of a cooperative model, discussing the challenges to an effective response posed by the current public health system and suggesting means for improving infrastructure and encouraging greater cooperation between public health institutions and the populations they serve.

I. TWO MODELS OF PUBLIC HEALTH RESPONSE

While there is widespread agreement that the public health system will play a crucial role in the event of a bioterrorist attack,¹² there is much debate as to how the system should respond to such a catastrophic event. Most proposals fit into one of the two broad models described above—the coercive model or the cooperative model. These models have applicability to public health issues beyond bioterrorism, including natural emergencies and non-emergency health problems. While our focus is on the appropriate response to bioterrorism, our discussion of the comparative effectiveness of these models may be useful in examining public health responses in those contexts as well.

A. *The Coercive Model of Public Health Responsiveness*

For supporters of the coercive model, individual rights are important and deserve adequate protection in normal times, but may give way somewhat in the face of pressing public health needs during an emergency.¹³ In order to effectively contain the spread of infectious agents and appropriately respond to the public health threat, supporters argue that the state must be able to use measures such as quarantine, isolation, mandatory vaccination,

¹² See WMD PREVENTION COMM'N, *supra* note 1, at 23–24.

¹³ See Hodge & Gostin, *supra* note 7, at 19. The use of certain coercive techniques may raise constitutional issues that will not be discussed here. For a discussion of the constitutional limits on coercive public health measures, see Wendy K. Mariner et al., *Jacobson v Massachusetts: It's Not Your Great-Great-Grandfather's Public Health Law*, 95 AM. J. PUB. HEALTH 581 (2005).

reporting requirements, and the seizure of contaminated or needed private property. As one author of the MSEHPA put it: “[G]overnment’s duty to protect the public’s health [after a bioterrorist attack] . . . includes virtually any governmental action needed to control the threat in the population.”¹⁴ Proponents of the model argue that these tools, which have a pedigree tracing back to the earliest public health responses, remain as important today as they were hundreds of years ago.¹⁵ While they acknowledge that public health has changed drastically, even over the last fifty years, they argue that these changes suggest a need to update and modify these coercive methods rather than adopt new strategies.

The MSEHPA is the most prominent recent example of the coercive model.¹⁶ Designed by public health scholars in the wake of the anthrax scare in 2001, the MSEHPA attempts to constrain the use of coercive powers in a legal framework, outlining emergency powers to be granted to public health officials in the event of a bioterrorist attack or similar threat.¹⁷ While calling for greater planning, coordination, and communication among actors in the public health system, the MSEHPA broadly increases state governmental power. The authors of the MSEHPA acknowledge that the model legislation will curtail individual rights, but they view these intrusions as necessary to protect public health: “[The] powers [granted by the MSEHPA] include measures (testing, treatment, and vaccination programs; isolation or quarantine powers; travel restrictions) that may infringe individual civil liberties (rights to due process, speech, assembly, travel, and privacy).”¹⁸

The broad powers outlined in the MSEHPA are triggered by the Governor’s declaration of a public health emergency.¹⁹ Once the emergency has been declared, public health officials can require disclosures by health care

¹⁴ James G. Hodge, Jr., *Bioterrorism Law and Policy: Critical Choices in Public Health*, 30 J.L. MED. & ETHICS 254, 256 (2002).

¹⁵ Cf. Lawrence O. Gostin, *When Terrorism Threatens Health: How Far Are Limitations on Personal and Economic Liberties Justified?*, 55 FLA. L. REV. 1105, 1109 (2003) (“I would allow government to pursue public security through the full panoply of traditional powers, but require conformance with a structured set of standards and procedures set by elected officials in advance of a public health emergency.”).

¹⁶ Bills modeled after the MSEHPA have been proposed in a number of state legislatures, although there is a debate concerning how many states have actually adopted parts of the model legislation. Compare THE CTRS. FOR LAW & THE PUB.’S HEALTH, THE MODEL STATE EMERGENCY HEALTH POWERS ACT (MSEHPA): STATE LEGISLATIVE ACTIVITY 1 (2006), available at <http://www.publichealthlaw.net/MSEHPA/MSEHPA%20Leg%20Activity.pdf> (claiming that thirty-eight states and the District of Columbia had adopted portions of the model act), with George J. Annas, *Blinded by Bioterrorism: Public Health and Liberty in the 21st Century*, 13 HEALTH MATRIX 33, 60–62 (2003) (arguing that the act’s drafters had far overstated the number of states that had adopted any part of the MSEHPA as of 2003).

¹⁷ There have been several different versions of the MSEHPA, as its proponents have sought to respond to critics. See Annas, *supra* note 8, at 40–43. Since this Article seeks to explain the coercive model of public health responsiveness rather than examine the specifics of the MSEHPA in great detail, we do not trace its development over time. Rather, we use a description of a later version of the MSEHPA by James G. Hodge, Jr. and Lawrence O. Gostin from 2003. See Hodge & Gostin, *supra* note 7, at 24–30.

¹⁸ Hodge & Gostin, *supra* note 7, at 19.

¹⁹ *Id.* at 25.

providers, medical examiners, pharmacists, and veterinarians of the names and medical conditions of afflicted persons; seize private property for public use; restrict certain commercial transactions and practices; and quarantine and isolate individuals who refuse vaccination or become infected.²⁰ The MSEHPA provides various safeguards for the exercise of these powers, such as requiring court orders for quarantines in most circumstances,²¹ in order to provide individuals with some measure of procedural protection.

The MSEHPA is by no means the only example of coercive public health responses to emergencies. Quarantines, isolation, and mandatory vaccinations have a long history in the United States as methods of responding to both natural and man-made health emergencies.²² Protecting public health was considered one of the primary justifications for the exercise of state police power in the nineteenth century. States were given (and still have) extensive authority to utilize coercive force to prevent disease outbreaks, such as creating compulsive vaccination programs for smallpox.²³ More recently, President George W. Bush suggested that he would utilize the military to enforce domestic quarantines in the event of an avian flu outbreak.²⁴ In fact, supporters of the coercive model argue that the methods they support lie at the core of public health law: “A reliance on coercive reactive control methods—particularly nuisance abatement, quarantine, and isolation—can be said to form the deepest layer of American disease control law, a layer that is often invisible, but that still shapes the structure of the statutory landscape.”²⁵

Proponents of the coercive model do not believe that the majority of the public will intentionally disregard instructions from public health officials during an emergency. Rather, they are concerned that some individuals will ignore vital orders and threaten the safety of the larger community.²⁶ Absent clear delineation of the appropriate and available coercive measures, public health officials might delay taking the necessary steps, rendering any re-

²⁰ *Id.* at 27–29.

²¹ *Id.* at 30.

²² See, e.g., Ronald Bayer & James Colgrove, *Rights and Dangers: Bioterrorism and the Ideologies of Public Health*, in *IN THE WAKE OF TERROR*, *supra* note 7, at 51, 51–54.

²³ See *Jacobson v. Massachusetts*, 197 U.S. 11, 25 (1905).

²⁴ David Brown, *Military's Role in a Flu Pandemic*, WASH. POST, Oct. 5, 2005, at A05. The use of the military to enforce quarantines further exacerbates some of the problems with the coercive model discussed in Part II.B. See Jonathan D. Moreno & Sam Berger, Ctr. for Am. Progress, *Plugging the Gaps in Biodefense* (Oct. 26, 2005), <http://www.americanprogress.org/issues/2005/10/b1137333.html> (on file with the Harvard Law School Library).

²⁵ Gostin et al., *supra* note 6, at 102. Opponents of coercive measures suggest that this view ignores the wide range of traditional non-coercive public health responsibilities that have been tasked to other agencies over the last hundred years, such as environmental cleanliness and food safety. See Wendy E. Parmet, *Quarantine Redux: Bioterrorism, AIDS and the Curtailment of Individual Liberty in the Name of Public Health*, 13 HEALTH MATRIX 85, 102–03 (2003). They also argue that traditional public health responses included encouraging public cooperation in addition to coercive methods. See *id.* at 102; see also Barbara Gutmann Rosenkrantz, *Cart Before Horse: Theory, Practice and Professional Image in American Public Health, 1870–1920*, 29 J. HIST. MED. & ALLIED SCI. 55, 63 (1974) (discussing some public health practitioners' focus on the primary importance of educating the public).

²⁶ Hodge & Gostin, *supra* note 7, at 24.

sponse ineffective. “[C]ompulsory powers, like quarantine, will be effective only if they are used during the early stages of the outbreak. Otherwise, those who were initially infected will spread the disease . . . until the geographical area affected is too vast to make quarantine plausible and effective.”²⁷ Coercive methods have proven useful in modern times. One scholar notes that “[d]uring the SARS outbreak in 2003, the World Health Organization acknowledged that the use of quarantines, combined with surveillance and travel restrictions, ‘sharply reduced the adverse effects of the outbreaks.’”²⁸

Supporters of the coercive model also argue that their model is consistent with deeply held American values. They do not seek unchecked government authority, but want to constrain coercive power through the rule of law.²⁹ Submission to potentially coercive public health methods is viewed as a part of the social contract; as members of a society, people acknowledge that the common good will at times take precedence over their individual rights.³⁰ Supporters argue that Americans largely accept the notion that individual rights can be limited when they pose a significant risk of harm to others, produce negative externalities, or threaten the health of the larger community.³¹

B. Cooperative Critiques of the Coercive Model

The cooperative model takes a far different view of the most effective public health response. While the coercive model focuses on shaping the government’s power to compel obedience during a crisis, the cooperative model seeks to improve voluntary compliance by protecting individual rights and nurturing greater public trust in health officials.³² Proponents of the cooperative model argue that the focus of the public health response to a bioterrorist attack should not be on controlling those who ignore public health officials, but on creating an environment that decreases the likelihood that people will disobey commands in the first place. Coercive measures are seen as counterproductive and ineffective, causing people to lose valuable trust in the government while accomplishing few, if any, of the desired goals. Instead, proponents of the cooperative method focus on managing

²⁷ Gostin, *supra* note 15, at 1161 (footnote omitted).

²⁸ Erin M. Page, *Balancing Individual Rights and Public Health Safety During Quarantine: The U.S. and Canada*, 38 CASE W. RES. J. INT’L L. 517, 536 (2006–07) (citation omitted). The United States, however, did not use quarantines to address SARS. See *infra* note 42 and accompanying text.

²⁹ See Lawrence O. Gostin & David P. Fidler, *Biosecurity Under the Rule of Law*, 38 CASE W. RES. J. INT’L L. 437, 458–60 (2006–07).

³⁰ See Joseph Barbera et al., *Large-Scale Quarantine Following Biological Terrorism in the United States: Scientific Examination, Logistic and Legal Limits, and Possible Consequences*, 286 JAMA 2711, 2712 (2001).

³¹ See Gostin, *supra* note 15, at 1146–58.

³² “[T]aking human rights and bioethics seriously makes public health and safety measures more effective, at least in democracies, where public trust in government is essential to its success.” Annas, *supra* note 8, at 33.

information and building relationships so that public health commands are quickly disseminated and widely obeyed.

Supporters of the cooperative method view reliance on coercive methods as anachronistic; the use of those methods predates increased public trust in the health system over the last fifty years.³³ Today, the problem is not forcing individuals to seek medical help or take other appropriate actions, but ensuring they know what to do and who to go to for information. Therefore, the primary focus of any public health response should be on providing people with useful information.

George Annas argues that the anthrax attacks of 2001, which resulted in the creation of the MSEHPA, are indicative of the outdated concerns that animate the coercive model. When the attacks were first reported, “Americans almost uniformly rushed toward physicians and hospitals, not away from them, and demanded to be screen[ed] and treated, rather than resisting such care.”³⁴ There was no problem with ensuring that people sought treatment, but problems did arise from the inability of public authorities to deal with the coordination and supply issues caused by the tremendous demand. That is, there was a need for better information management and organizational infrastructure, not more coercive powers.³⁵ In fact, efforts to combat the spread of disease were hampered when the government lost the trust of the public. Government officials made a mistake in providing an anthrax vaccine to the general population without any comment on its potential efficacy. Absent any suggestion that the vaccine had been properly tested and would be beneficial, some people felt as if they were being asked to serve as guinea pigs, and very few individuals actually took the vaccine.³⁶ Thus, non-transparency decreased public trust, which undercut the effectiveness of the public health response. The problem was a lack of cooperation, not insufficient coercion.

As the anthrax experience shows, any effective public health measure must rely on public trust and cooperation in order to be successful.³⁷ During a health emergency, encouraging the public to take simple precautions, such as avoiding public spaces or seeking testing when symptoms appear, will frequently have the greatest effect in containing the spread of a disease.³⁸ These simple steps can have significant results; the challenge is ensuring that people understand and follow them, which requires that they trust the individuals providing the instructions. More complex interventions, including

³³ “Refusal [of vaccinations] was anticipated in the early 1900s because vaccination itself was controversial, there were no antibiotics, physicians were not widely trusted, science and medicine were in their infancy, and hospitals were primarily ‘pesthouses.’” George J. Annas, *Bioterrorism, Public Health, and Civil Liberties*, 346 *NEW ENG. J. MED.* 1337, 1339 (2002).

³⁴ Annas, *supra* note 8, at 43–44.

³⁵ See Annas, *supra* note 16, at 52.

³⁶ See Annas, *supra* note 8, at 44–45.

³⁷ This view is shared, in part, by one of the principal authors of the MSEHPA, who argues that “if quarantine or isolation is mandated, the cooperation of the public is crucial to its success.” Gostin, *supra* note 15, at 1167.

³⁸ See Barbera et al., *supra* note 30, at 2716.

coercive ones, necessitate even greater public trust and cooperation. Mass vaccination programs, whether voluntary or involuntary, require popular belief that vaccinations are safe, effective communication to ensure people know where and when to get the vaccinations, and assurances to individuals without adequate health insurance that they will receive prompt care for vaccine-related injuries.³⁹ Quarantines and isolation also require high levels of trust, as limited public health resources and the potential size of the task make them all but impossible to enforce without voluntary compliance.⁴⁰

The use of coercive measures carries the serious risk of reducing public trust, however, generating large costs and undermining response efforts. Coercive measures have historically caused people to ignore or contravene public commands,⁴¹ necessitating more personnel to enforce actions and greatly increasing the cost of the public health response. In addition, coercive measures may cause individuals to be less willing to undergo testing or report information about those infected. This lack of information would severely limit the government's ability to analyze the spread of the disease and treat the infected. Panicked reactions to potential coercive measures can also lead to unproductive or risky behavior. In China, fear that the government would establish martial law in Beijing because of the SARS epidemic caused thousands to flee the city, potentially spreading the disease over an even wider area, and rioters in another Chinese town destroyed a quarantine building. The United States and other democratic countries relied on the more effective technique of asking potentially infected people to self-quarantine and self-monitor for ten days, producing a more measured public response.⁴² U.S. health officials utilized public trust to maintain order, thereby preventing panicked—and ultimately dangerous—public responses and making management of the health crisis significantly easier.

As the SARS episode suggests, while coercive methods have a long pedigree in responding to health emergencies, they do not have a particularly successful track record.⁴³ Consider the case of quarantines, one of the oldest coercive public health methods in the world. While quarantines were often used historically, they have not been employed frequently or effectively in the modern era. In fact, there has been no large-scale quarantine in the United States in the past eighty years.⁴⁴ To effectively employ a large-scale quarantine today would be a logistical nightmare, requiring a tremendous number of enforcement officers and significant expenditures, with little expected benefit. Moreover, the use of quarantines can cause people to panic

³⁹ See Parmet, *supra* note 25, at 113.

⁴⁰ The proliferation of communication technology and new media may also render quarantines less effective absent public trust. See Annas, *supra* note 33, at 1340 (“[W]e have televised news 24 hours a day, cell phones, and automobiles, making a large-scale quarantine impossible unless the public believes that it is absolutely necessary to prevent the spread of fatal disease and is fairly and safely administered.”).

⁴¹ See *infra* note 45 and accompanying text.

⁴² See Annas, *supra* note 16, at 65–66.

⁴³ See Parmet, *supra* note 25, at 103–04.

⁴⁴ Barbera et al., *supra* note 30, at 2712.

and ignore public health orders out of fear or distrust, complicating the public health response. As one group of public health scholars, including a prominent author of the MSEHPA, put it: "In most infectious disease outbreak scenarios, there are alternatives to large-scale quarantine that may be more medically defensible, more likely to effectively contain the spread of disease, less challenging to implement, and less likely to generate unintended adverse consequences."⁴⁵ For example, public health officials would be better served by providing resources and information to the public to encourage disease-containing behavior, such as seeking timely medical help, taking antibiotics, and wearing disposable face masks or other protective equipment. While large-scale quarantines represent only one kind of coercive public health method, similar problems of coordination and unintended adverse responses from the public would likely plague other large-scale coercive tools.⁴⁶

Supporters of the cooperative model are also concerned that coercive measures could be used in a discriminatory way, as has historically been the case. In the nineteenth century, immigrants in New York were frequently isolated from the larger population in an effort to prevent the spread of cholera and typhus.⁴⁷ In the early 1900s, public health officials in San Francisco imposed quarantines in Chinatown because they believed Chinese immigrants were responsible for spreading the bubonic plague.⁴⁸ More recently, in the 1970s and 1980s, the United States seriously considered a number of restrictive public health measures in an effort to combat AIDS that "can be recognized as nothing more noble than the scapegoating, if not vilification of marginalized groups."⁴⁹ Measures that were ultimately rejected included mandatory testing for those suspected of having the disease and the exclusion of HIV-positive children from school.⁵⁰ During the same time period, a school board sought to exclude mentally handicapped children who were infected with Hepatitis B from public school, and then, when forced to admit them, tried to segregate them from other students.⁵¹ The tendency to dehumanize the diseased during an outbreak not only results in social stigmatization, but can also lead to greater attention being paid to quarantining the

⁴⁵ *Id.* at 2714.

⁴⁶ It is possible that more narrow coercive methods would not suffer these problems; the scholars who criticize large-scale quarantines suggest isolation or closure of mass transit systems as two potentially more effective alternatives. *See id.* at 2716.

⁴⁷ Bayer & Colgrove, *supra* note 22, at 52.

⁴⁸ *See* NAYAN SHAH, *CONTAGIOUS DIVIDES: EPIDEMICS AND RACE IN SAN FRANCISCO'S CHINATOWN* 120–57 (2001). Similar quarantines had been used in Chinatown in the past because "[n]ineteenth-century San Francisco health officials and politicians conceived of Chinatown as the preeminent site of urban sickness, vice, crime, poverty, and depravity." *Id.* at 1. A federal court struck down the bubonic plague quarantine as being unfair and discriminatory. *Jew Ho v. Williamson*, 103 F. 10, 26 (C.C.N.D. Cal. 1900).

⁴⁹ Parmet, *supra* note 25, at 95.

⁵⁰ *See id.* at 96–97.

⁵¹ Scott Burris, *Current Topics in Law and Policy, Fear Itself: AIDS, Herpes and Public Health Decisions*, 3 *YALE L. & POL'Y REV.* 479, 492 (1985).

infected than actually caring for them.⁵² While such extreme abuses are far less likely today, and proponents of the coercive model seek safeguards to assure that state powers are utilized in a nondiscriminatory manner, there is still cause for concern that coercive measures could be used inappropriately.⁵³

The fear caused by discriminatory exercises of state power can exacerbate public resistance to coercive measures and further hamper effective public health responses. In 1894, the city of Milwaukee dealt with a smallpox outbreak through a mixture of vaccination, home quarantine, and isolation hospitals.⁵⁴ Believing that home quarantines would be more effective in middle- and upper-class neighborhoods, the city only used forcible removal to isolation hospitals in poor immigrant sections of the city. Residents of these areas felt they were being discriminated against and thus refused to cooperate with city officials in reporting instances of smallpox, eventually starting a month-long riot against the forcible removals and vaccination campaign.⁵⁵ The resulting chaos and public resistance allowed smallpox to spread and kill many more people than it would have absent these problems.⁵⁶ In contrast, in 1947, New York City addressed a smallpox outbreak by providing mass voluntary vaccinations and an extensive information campaign to all citizens, eschewing coercive measures. The program resulted in high levels of public compliance; over six million people received vaccinations, and the disease did not gain a foothold in the city.⁵⁷ By relying on a cooperative model that treated people equally and respectfully, New York City was far more successful in limiting the effects of the smallpox outbreak while maintaining public order.

As demonstrated by the New York City case, the cooperative model views the primary role of public health officials as managing information, not people.⁵⁸ People need to be told details about the biological agent and its spread, what to do to limit exposure, and where to go to seek treatment.⁵⁹ Information must be accurate and reliable, because if people lose trust in

⁵² See HOWARD MARKEL, *QUARANTINE! 185–87* (1997).

⁵³ Recent experiences with disaster response suggest that these concerns are not overblown. Consider allegations of discriminatory practices by public officials engaging in disaster relief after Hurricane Katrina. See, e.g., Sherrie Armstrong Tomlinson, Note, *No New Orleanians Left Behind: An Examination of the Disparate Impact of Hurricane Katrina on Minorities*, 38 CONN. L. REV. 1153, 1170–74 (2006). These risks may be heightened in the wake of a bioterrorist attack, when people are confused about who caused the outbreak and who is spreading the disease, making them more prone to stigmatize others. See The Working Group on “Governance Dilemmas” in Bioterrorism Response, *Leading During Bioattacks and Epidemics With the Public’s Trust and Help*, 2 BIOSECURITY & BIOTERRORISM: BIODEFENSE STRATEGY, PRAC., & SCI. 25, 32 (2004).

⁵⁴ See Judith Walzer Leavitt, *Public Resistance or Cooperation? A Tale of Smallpox in Two Cities*, 1 BIOSECURITY & BIOTERRORISM: BIODEFENSE STRATEGY, PRAC., & SCI. 186 (2003).

⁵⁵ See *id.* at 187.

⁵⁶ See *id.* at 187–88.

⁵⁷ *Id.* at 188–89.

⁵⁸ See Annas, *supra* note 4, at 1181.

⁵⁹ Barbera et al., *supra* note 30, at 2716.

official sources of information, there is scant time to win it back, and less reliable sources will fill the informational void.⁶⁰ Moreover, the cooperative method suggests that public health officials take steps to encourage disease containment behavior in the wake of an attack, such as widely distributing medical supplies and allowing family members to care for the infected when the risks can be reduced to an acceptable level.⁶¹ Officials should also respect individuals' civil liberties, thereby building public trust and encouraging voluntary compliance with public health orders. In addition to relying on public health officials, the cooperative model relies on better training for and communication with clinicians and other primary care doctors, who are frequently the first to see potential outbreaks and the first to interact with patients. These medical first responders can serve not only to diagnose potential victims, but also to reassure patients who have not contracted the disease, which can maintain public order and lessen an unnecessary diversion of attention and resources to healthy people.⁶²

But the cooperative model requires more than just mobilization after a bioterrorist attack. It also requires public health officials to build public trust prior to an attack by working closely with communities and encouraging local involvement in public health institutions. This type of collaboration can produce greater cooperation, allow public health officials to utilize local knowledge to combat the biological agent, and greatly improve public health outcomes. For example, in the early twentieth century, Wilbur C. Phillips created a Social Unit Organization in the Mohawk-Brighton neighborhood of Cincinnati, which united doctors, nurses, social workers, and citizens in a governing council that worked together to administer preventative health programs for young children.⁶³ In addition to organizing the youth program, the Social Unit Organization organized public health efforts for the neighborhood during the 1918 influenza epidemic, relying on citizen engagement and peer-to-peer informational campaigns to combat the disease. Although the neighborhood suffered a greater percentage of cases of influenza than the city as a whole, it had a lower death rate, suggesting the effectiveness of voluntary compliance models grounded in community activism.⁶⁴ Public health officials should take similar steps today to ensure equally cooperative responses from the public in the event of a bioterrorist attack.

⁶⁰ See *id.*

⁶¹ *Id.*

⁶² See Julie Louise Gerberding et al., *Bioterrorism Preparedness and Response: Clinicians and Public Health Agencies as Essential Partners*, 287 JAMA 898, 898–99 (2002).

⁶³ See Patricia Mooney Melvin, "A Cluster of Interlacing Communities": The Cincinnati Social Unit Plan and Neighborhood Organization, 1900–1920, in *COMMUNITY ORGANIZATION FOR URBAN SOCIAL CHANGE* 59, 70–74 (Robert Fisher & Peter Romanofsky, eds., 1981).

⁶⁴ See *id.* at 75–76. Despite its success at improving public health, the Social Unit Organization was abandoned after two years because of post-World War I concerns that it was too close to Bolshevism, as well as its inability to generate sufficient financial support. *Id.* at 77, 80.

C. The Need to Emphasize One Model

Although we argue that the cooperative model is a more effective means of responding to a bioterrorist attack, we acknowledge that there is still room for the use of coercive methods in public health responses. Any effective response will likely incorporate some aspects of both approaches, depending on the situation. But this does not mean that the choice between the two models can be avoided or that policymakers should focus on a hybrid of the two. These models present very different visions of the correct public health response to a bioterrorist attack, and while they are not wholly incompatible, primary emphasis must be placed on one approach. Determining that emphasis may seem like a minor point, but it has significant ramifications. For political and policy reasons, both models cannot be pursued simultaneously, and significant support for coercive measures will likely undermine efforts to effectively utilize the cooperative model.

Political realities suggest that too much support for coercive measures may prevent effective implementation of the cooperative model. Due to limited resources and electoral realities, political decision makers frequently seek the most cost-effective solutions in the short term. This political climate is not conducive to the sort of time- and resource-intensive activities necessary to implement the cooperative model. In order to work effectively, the cooperative model requires a robust and highly functioning public health system that can quickly disseminate information and provide communities with the resources they need to take effective disease containment measures. It also requires significant increases in staffing in order to have the personnel needed to build trust within local communities effectively—work that is also time-intensive. The coercive method, on the other hand, requires comparatively little in the way of new funding or time commitments in the short term. Creating new legal powers does not cost any money, and other than strategic planning of the public health response, the coercive model would employ resources largely after the attack. The high costs of the model arise from its post-attack implementation, costs that are exacerbated by low levels of voluntary compliance stemming from the use of coercive measures; in the short term, the coercive model actually appears to be a less costly option.

Faced with the two means of combating bioterrorism, therefore, politicians may be tempted to expand state coercive powers without making the necessary improvements to the public health system to facilitate a cooperative response.⁶⁵ But clarifying legal powers is only one small part of preparing a response to a bioterrorist attack; without significant attention to public health infrastructure needs, any response will be significantly impeded. In fact, the drafters of the MSEHPA recognized this potential danger and sought to address it in the redrafting process: “the new draft [of the MSEHPA] subtly acknowledged that the original version had, by emphasizing the importance of coercive measures, inadequately underscored the cen-

⁶⁵ See Parmet, *supra* note 25, at 111.

trality of a well-financed and organized public health system.”⁶⁶ Still, the temptation to ignore the substantive changes demanded by the cooperative model will be powerful; only by emphasizing the importance of the cooperative method can policymakers be assured of the necessary resources to implement it.

In addition to political concerns, there are policy reasons that suggest the importance of primarily focusing on cooperative methods. In his work on how to encourage cooperative impulses in individuals, Yochai Benkler argues that we should pay greater attention to institutional effects on cooperation.⁶⁷ Properly designed institutions can greatly increase voluntary compliance, and poorly designed ones can strongly discourage it. In establishing public health institutions, therefore, policymakers must be attuned to whether those institutions are supposed to encourage cooperation through trust. And, as mentioned above, the use of coercive methods may actually decrease public trust in the larger populace. In his discussion of cooperation, Benkler warns of the danger of “crowding out,” namely when one form of motivation undermines the efficacy of another; the classic example is punishment reducing the efficacy of trust.⁶⁸ By utilizing or over-emphasizing coercive methods, policymakers may actually undermine the conditions necessary to inspire voluntary compliance in the first place.

As we have noted, there are times when coercive methods may be necessary in order to effectively respond to a bioterrorist attack. In this sense, we strongly distinguish our position from opponents of the coercive model who believe that the use of government power during a health emergency is never justified.⁶⁹ The use of state power in the wake of an attack may be particularly necessary when there is legitimate concern that further attacks, biological or otherwise, will follow, and efforts must be undertaken to prevent or prepare for those attacks, such as ensuring a sufficient number of health care workers and hospital beds. To the extent that laws do not allow for the reasonable use of state power in these situations, they should be changed. But the instances in which this coercive power is exercised should be carefully circumscribed, and the utmost respect must be given to individual civil liberties.

When public health officials do utilize coercive methods, they should consider means of making the burdens less onerous in order to encourage cooperation. The state should ensure that people’s economic losses will be recouped, affected individuals will be fairly treated and have procedural protections, and people’s dependents will be cared for while they are isolated or

⁶⁶ Bayer & Colgrove, *supra* note 22, at 66.

⁶⁷ See Yochai Benkler, *Law, Policy and Cooperation*, in *GOVERNMENT AND MARKETS: TOWARD A NEW THEORY OF REGULATION* 299, 302–03 (Edward J. Balleisen & David A. Moss eds., 2010).

⁶⁸ See *id.* at 321–22.

⁶⁹ In particular, we want to distinguish our position from that of critics of the coercive model who oppose almost any public health initiative, including vaccination programs. See, e.g., Bayer & Colgrove, *supra* note 22, at 68–69 (describing libertarian and anti-vaccine activists’ opposition to the MSEHPA).

quarantined.⁷⁰ Officials should also reassure people that they will not be completely separated from family members if they are found to be infected. Minnesota has made some progress in this area by ensuring that quarantined or isolated persons can communicate with people outside of these settings, and by specifically allowing family members or health care agents of the quarantined or isolated person to enter the restricted area.⁷¹ These measures lessen the distrust caused by coercive measures and encourage individuals to cooperate with public health officials rather than avoid them. While still utilizing coercive tools, they show greater awareness that encouraging voluntary compliance is more effective than unvarnished force.

The potential need for the use of coercive methods in these narrow instances does not outweigh the larger benefits of a broader cooperative mindset when responding to bioterrorist attacks, nor should it lead to greater emphasis being placed on coercive measures. Ultimately, adoption of a cooperative model will organize the public to be willing partners in responding to the attack and provide an appropriate framework for addressing the modern problems of emergency response.

II. A PROGRESSIVE APPROACH TO PUBLIC HEALTH PREPAREDNESS

First and foremost, progressivism dictates that policy decisions should be based on effectiveness. In addition to ensuring that a public health response is effective, however, it is also important that the response be commensurate with our values. No policy exists in a vacuum; the values reflected in public health emergency response planning will bleed into other discussions of public health and national security policy. A comparison of the two models reveals that the cooperative model is more reflective of broader progressive bioethical values; it not only provides a more effective paradigm for handling bioterrorism, but also reinforces the importance of protecting individual rights, making institutions more responsive, and practically addressing significant real-world concerns.

Progressive bioethics seeks to utilize the insights of the Progressive movement and apply them to bioethical issues. The Progressives of the early twentieth century were social reformers who wanted to improve the world through scientific expertise and democratic participation. They sought to interject science and evidence into policymaking, while also making institutions more responsive to the public.⁷² Drawing on these values, today's progressives believe that social progress is possible, that pragmatism should trump ideology, that individual rights and the common good reinforce one another rather than conflict, that policymaking must be grounded in evi-

⁷⁰ See Parmet, *supra* note 25, at 113–14.

⁷¹ See MINN. STAT. § 144.419 (2009).

⁷² See Berger & Moreno, *supra* note 10, at 6–9.

dence, and that old traditions must give way to more effective methods of accomplishing our goals.⁷³

Applying this progressive vision to bioethics, we have argued that four values make up a progressive bioethics sensibility: critical optimism, human dignity, moral transparency, and ethical practicality.⁷⁴ Progressives are critical optimists who believe in the power of science and technology to improve our lives, but recognize that these technologies frequently have downsides as well. They support human dignity by protecting people's autonomy to pursue their own vision of the good life provided they do not impede the ability of others to do the same. Progressive bioethicists acknowledge moral transparency; they understand that bioethicists should not impose values on people, but instead explain how widely held communal values can be applied in new contexts. And they are ethically practical, focusing on the actual problems we confront in the world rather than on the risk of unlikely dystopian or utopian futures.

The progressive values most relevant for distinguishing between the two models of public health response are human dignity and ethical practicality, and they weigh in favor of the cooperative model. The cooperative model reflects a greater respect for and commitment to human dignity by prioritizing protecting individual rights. Civil liberties carry tremendous weight for progressive bioethicists, as they are a primary means of preventing external interference with individuals' pursuit of their own vision of the good life. The cooperative model incorporates this respect for individual rights by collaborating with individuals rather than paternalistically coercing them. People are presumed to freely and rightly pursue their own best interests, so the public health system should employ transparent policies and information disclosure to demonstrate that the government also has their best interests in mind.

The cooperative model also ensures greater respect for human dignity by making large, impersonal institutions more responsive to individuals. The cooperative model suggests that public health officials should work to better engage citizens in the public health system and seeks their help in setting priorities and realizing public health goals. For progressives, institutional responsiveness has always been a central means of ensuring the individual's ability to pursue his own vision of the good life. The Progressive movement was a response to the deficiencies of existing political institutions, in particular their inability to adequately respond to individuals' needs⁷⁵ or address structural problems such as those produced by urbaniza-

⁷³ *Id.* at 17.

⁷⁴ *Id.* at 18–20.

⁷⁵ See, e.g., William E. Forbath, *Politics, State-Building, and the Courts, 1870–1920*, in 2 THE CAMBRIDGE HISTORY OF LAW IN AMERICA: THE LONG NINETEENTH CENTURY, 1789–1920, at 643, 650–51 (Michael Grossberg & Christopher Tomlins eds., 2008).

tion and industrialization.⁷⁶ Progressive reformers championed measures like the direct election of Senators and the ballot initiative to restore popular political power and hold government accountable.⁷⁷ They also sought to improve democratic deliberation by uniting communities and expert decision makers; Phillips' Social Unit Organization was an example of such Progressive experimentation. The cooperative model reflects a modern day attempt to build trust and inspire cooperation between government and the people it represents.

Adopting the cooperative model is also commensurate with ethical practicality. A cooperative approach to bioterrorism would not only improve readiness for a biological attack, but also improve the robustness of the health infrastructure on the whole, thereby addressing a host of more common and tangible problems. While bioterrorism poses a greater threat than a nuclear terrorist attack, both scenarios are significantly less likely than death from common diseases, which kill thousands of people each year.⁷⁸ Additionally, should an outbreak of a global pandemic such as H5N1 (avian) or 2009 H1N1 (swine) flu occur, significant public health resources would be necessary to contain it effectively. Concerns about bioterrorism, therefore, should not divert funding from other necessary public health initiatives that make a concrete difference in people's lives.⁷⁹ Rather, funding should go to general infrastructure needs that will be useful both in combating bioterrorism and addressing common public health problems,⁸⁰ such as modernizing communication technology, providing public health facilities with basic equipment, and increasing the size of the public health workforce.⁸¹ Public health officials have increasingly recognized the importance of this all-hazards approach, and have taken steps to ensure bioterrorism funding supports a multitude of public health causes.⁸²

But the coercive model does not lend itself to these types of dual-use expenditures. The model provides policymakers with the opportunity to avoid more time- and resource-intensive improvements to the public health infrastructure and instead focus only on altering legal powers. Additionally, because it emphasizes the aftermath of the attack, the coercive model pro-

⁷⁶ One of the major impetuses for increased public regulation in the Progressive era was maintaining public health in the rapidly growing cities. See DANIEL T. RODGERS, *ATLANTIC CROSSINGS: SOCIAL POLITICS IN A PROGRESSIVE AGE* 114–16 (1998).

⁷⁷ See e.g., Gavin M. Rose, *Taking the Initiative: Political Parties, Primary Elections, and the Constitutional Guarantee of Republican Governance*, 81 *IND. L.J.* 753, 756–57 (2006) (explaining that the roots of the direct election of Senators and other electoral institutional mechanisms lay in returning political power to the people).

⁷⁸ Sidel, *supra* note 4, at 717.

⁷⁹ Annas notes that diversion of funds from successful programs has been a problem for the public health system. See Annas, *supra* note 4, at 1177–78.

⁸⁰ See Sidel, *supra* note 4, at 717.

⁸¹ See LISTER, *supra* note 5, at 1.

⁸² See TRUST FOR AM.'S HEALTH, *READY OR NOT? PROTECTING THE PUBLIC'S HEALTH FROM DISEASES, DISASTERS, AND BIOTERRORISM* 4–5 (2008), available at <http://healthyamericans.org/assets/files/bioterror-report-2008.pdf>.

vides little impetus for broader and more sustained public health system improvements. Unlike the coercive model, however, the cooperative model encourages the types of improvements that will benefit all public health efforts, whether directed towards a possible bioterrorist attack or the next flu season. This includes improvement to infrastructure, as well as institutional designs that increase public trust and civic engagement in the health system.⁸³

The cooperative model thus provides a number of benefits in addition to its effectiveness in responding to a bioterrorist attack. It reaffirms the importance of individual rights, particularly the need to protect them even in the direst of contexts. It also suggests the importance of making institutions more responsive to individual needs and preferences, as well as the value of encouraging greater trust in government. Finally, the model does not distract policymakers from the practical problems of the everyday world, but instead provides a further reason for them to take bold steps that address these problems by improving the public health system via dual-use expenditures. The reinforcement of these important values provides good reason for progressives to support the cooperative model.

III. IMPROVING THE PUBLIC HEALTH SYSTEM AND BUILDING A COOPERATIVE SYSTEM

The cooperative model of preparedness is the best means of ensuring public safety in the wake of a bioterrorist attack. But in order to effectively utilize the cooperative model, we need to continue improving our public health system. Prior to 9/11, the public health system was largely a victim of its own success. In the last hundred years, the public health system has eradicated a host of dangerous diseases and drastically improved our sanitation—public health efforts are responsible for over eighty percent of our increased life span since 1900.⁸⁴ But as public health improved, the importance of the public health system declined in the public eye. Protected from the diseases and afflictions that made public health so salient, we allowed the public health system to fall into disarray by the end of the twentieth century.⁸⁵

While the emergence of bioterrorism has drawn renewed attention to the public health system and led to significant improvements, much remains to be done to repair the damage from years of under-funding and neglect.⁸⁶

⁸³ For further discussion of the types of improvements required by the cooperative model, see *infra* Part III.

⁸⁴ Barry S. Levy, *Twenty-First Century Challenges for Law and Public Health*, 32 *IND. L. REV.* 1149, 1150 (1999).

⁸⁵ See *LISTER*, *supra* note 5, at 1–2.

⁸⁶ See, e.g., *TRUST FOR AM.'S HEALTH ET AL., PANDEMIC FLU PREPAREDNESS: LESSONS FROM THE FRONTLINES* 3 (2009), available at <http://healthyamericans.org/assets/files/pandemic-flu-lesson.pdf> (noting that public health departments did not have sufficient resources to respond to H1N1 outbreaks).

Many of these improvements would benefit both cooperative responses to bioterrorism and other public health efforts. For example, the public health system is currently suffering from a workforce shortage, particularly at the local level,⁸⁷ necessitating an increase in the number of well-trained health workers. States must also modernize and improve their disease surveillance systems, laboratory capacity, and surge capacity.⁸⁸ Relatively stagnant federal funding for a number of years exacerbated these infrastructure and workforce problems,⁸⁹ slowing improvements to the public health system.

The public health infrastructure should also be better designed to quickly and effectively deliver information to the public. As the WMD Prevention Commission notes:

[A]n effective public information strategy is essential to educate and inform the U.S. population during a bioterrorist attack, so that citizens are able to take effective action to minimize their risk of exposure, prevent the person-to-person spread of contagious agents, and diagnose and treat themselves and their loved ones at home when possible so that hospitals and other treatment centers are not inundated.⁹⁰

Effective communication requires both resources and planning. While states have taken steps to improve the communication among local health departments, more work needs to be done to improve the ability of the public health departments to communicate with the public in the event of an attack or contagious disease outbreak.⁹¹

In addition to improving the public health infrastructure, greater attention should be devoted to inculcating public trust and cooperation. The WMD Prevention Commission stated that “[t]he next administration must work to openly and honestly engage the American citizen, encouraging a participatory approach to meeting the challenges of the new century.”⁹² Therefore, public health officials must strengthen the impetus for cooperation prior to an attack. Their efforts should be informed by the significant body of legal scholarship on encouraging cooperation through the exercise of “soft power,” which includes the use of institutional norms, information, and transparency, rather than coercion.⁹³ For example, Benkler identifies

⁸⁷ See LISTER, *supra* note 5, at 29–32.

⁸⁸ See TRUST FOR AM.’S HEALTH, *supra* note 86, at 12, 14; see also *A Review of This Year’s Flu Season: Does Our Public Health System Need a Shot in the Arm?: Hearing Before the H. Comm. on Gov’t Reform*, 108th Cong. 5, 5–7 (2004) (statement of Janet Heinrich, Director of Health Care—Public Health Issues, General Accounting Office). The problem is further complicated because states have primary responsibility for public health, which has led to inconsistent levels of preparedness throughout the country. See TRUST FOR AM.’S HEALTH, *supra* note 82, at 11–49.

⁸⁹ See TRUST FOR AM.’S HEALTH, *supra* note 82, at 56.

⁹⁰ WMD PREVENTION COMM’N, *supra* note 1, at 34.

⁹¹ See TRUST FOR AM.’S HEALTH, *supra* note 82, at 96–97.

⁹² WMD PREVENTION COMM’N, *supra* note 1, at 109.

⁹³ See generally Scott Burris et al., *Changes in Governance: A Cross-Disciplinary Review of Current Scholarship*, 41 AKRON L. REV. 1, 30–44 (2008) (reviewing literature on the means

how institutions can be designed to police selfish actors without undermining people's intrinsic cooperative motivations. His advice includes allowing participants to communicate effectively with each other; encouraging people to identify with supposed counter-parties; avoiding crowding-out problems; and having institutional officials establish basic norms, act fairly and transparently, and allow for asymmetric levels of public involvement.⁹⁴ These ideas suggest that public health officials should provide helpful guidance to the public regarding appropriate behavior in the event of an attack, encourage public health workers to engage with their communities prior to an attack, and discourage coercive responses that are likely to decrease overall voluntary compliance.

Cooperative models have been applied in other fields. The most prominent example is community policing, which relies on cooperation between police and the neighborhoods they patrol, as opposed to more traditional coercive criminal enforcement. Community policing, which has been widely adopted over the past fifteen years, engages community members in discussions about the nature of local crime problems and the means to control them.⁹⁵ In addition, it draws on the resources of the community itself, involving community members in the process of policing their own neighborhoods and reporting potential crimes. In some instances, it even involves participatory budgetary decisions that allow communities to pay for additional policing services and coverage.⁹⁶ Effective community policing requires training for professionals and citizens, both of whom tend to be inexperienced in deliberative problem solving.⁹⁷

This redefinition of police practices is a particularly useful example because of law enforcement's long tradition of coercive models of engagement.⁹⁸ While community policing still relies on force to arrest criminals, efforts are redirected to cooperating with the large number of people in a community who are not criminals. By working with neighborhoods, officials can improve compliance with the law and reduce fear of enforcement officers,⁹⁹ two factors that would be very important in the public health context when responding to a bioterrorist attack.

of governing outside of traditional government structures, including the exercise of soft power).

⁹⁴ See Benkler, *supra* note 67, at 312–23.

⁹⁵ See, e.g., Archon Fung, *Accountable Autonomy: Toward Empowered Deliberation in Chicago Schools and Policing*, 29 POL. & SOC'Y 73, 74–75 (2001) (describing community policing efforts in Chicago).

⁹⁶ See Burris et al., *supra* note 93, at 49.

⁹⁷ Fung, *supra* note 95, at 80.

⁹⁸ The focus on relationship building and the exercise of soft power has also received attention within the national security arena, particularly with respect to information gathering. Providing neighborhoods with some control over how they are policed can build the trust necessary to turn local citizens into cooperative partners in intelligence gathering. See Martin Innes, *Policing Uncertainty: Countering Terror Through Community Intelligence and Democratic Policing*, 605 ANNALS AM. ACAD. POL. & SOC. SCI. 222, 229–34 (2006).

⁹⁹ See David Weisburd & John E. Eck, *What Can Police Do to Reduce Crime, Disorder, and Fear?*, 593 ANNALS AM. ACAD. POL. & SOC. SCI. 42, 52–53 (2004). The comparative effectiveness of community policing in crime reduction is still undetermined. See *id.*

Learning from the success of community policing, public health officials should work to strengthen their ties to local communities. The National Health Security Strategy (NHSS), a comprehensive plan of the Department of Health and Human Services designed to protect the nation's health in the case of an emergency, recognizes the importance of working with communities. The NHSS makes building community resilience one of its two primary goals because "[a]n essential part of achieving national health security is an informed, empowered, and resilient population."¹⁰⁰ Rather than wait until an attack occurs, public health workers should work with local communities now to engage them in discussions about the public health problems in their neighborhoods. And in the aftermath of the attack, public health officials should cooperate with the afflicted community to identify and resolve the biggest threats to local public health, such as individuals too sick to seek treatment, unable to understand the public information being provided, or unwilling to seek the appropriate medical attention. Funding should not only be used to stockpile vaccines, but also to support these types of collaborative efforts and provide the training that public health workers need to effectively implement them. In addition, greater direction should be given to local health agencies interested in utilizing such programs.¹⁰¹

Some scholars have also advocated government engagement with communities to encourage citizen self-protection, known as "community shielding."¹⁰² Under this plan, once people are alerted of a bioterrorist attack, they would undertake self-imposed temporary isolation within their own home, which would help contain the spread of disease, reduce public fear, and allow for a quicker return to normalcy after the attack.¹⁰³ Government officials would have to provide the resources and public education necessary to make such a plan successful, engaging with community leaders prior to an attack to create awareness and secure support.¹⁰⁴

Moreover, citizen engagement in public health should go beyond responses to a bioterrorist attack. Health is a vital good—one that affects our ability to obtain a whole host of other goods—so greater efforts should be made to democratize the health system's decision-making process. Public health officials should focus greater attention on involving communities in setting public health priorities and making public health decisions. The current Administration recognizes that citizen engagement in all aspects of public health is needed to build community resilience, and therefore health security, and has outlined initial steps to increase engagement at the local

¹⁰⁰ U.S. DEP'T OF HEALTH & HUMAN SERVS., NATIONAL HEALTH SECURITY STRATEGY 5 (2009), available at <http://www.hhs.gov/aspr/opsp/nhss/nhss0912.pdf>.

¹⁰¹ See TRUST FOR AM.'S HEALTH, *supra* note 82, at 96–97; Monica Schoch-Spana et al., *Expanding the Public's Role in Health Emergency Policy*, 7 BIOSECURITY & BIOTERRORISM: BIODEFENSE, STRATEGY, PRAC., & SCI. 39, 39–41 (2009).

¹⁰² See, e.g., Gostin, *supra* note 15, at 1166–67.

¹⁰³ See VICKI J. HUNT, COMMUNITY SHIELDING: A POLICY ANALYSIS 8 (2005), available at http://www.healthsystem.virginia.edu/internet/ciag/publications/community_shielding_policy_analysis.pdf.

¹⁰⁴ See *id.* at 4.

level, such as building local social networks and involving nongovernmental groups in local decisions about improving health.¹⁰⁵

This call for a more participatory health system is by no means new; there have been similar calls in the past for greater public engagement in public health and the larger health care system.¹⁰⁶ Community health campaigns; facilitated discussions about health priorities between practitioners, public health officials, and the public they serve; and community education programs are all effective means of strengthening the public health system through greater civic engagement. Reformers have taken similar steps in the larger health care system, such as quality collaboratives at the state and local level, which bring together providers, consumers, government officials, and employers to address issues in health care provision, although consumers frequently have only a minimal role.¹⁰⁷ Support for the cooperative model will provide further reason for policymakers to heed these calls for a more participatory healthcare structure.

CONCLUSION

The debate over the appropriate response to a bioterrorist attack implicates important issues in public health, bioethics, and progressivism. By focusing on a cooperative model that seeks to inculcate public trust and encourage voluntary compliance, progressives can effectively address public health crises while maintaining maximal respect for individual rights and civil liberties. Rather than utilizing coercive measures that lead to public backlash, health officials should seek to provide timely and accurate information to people, as well as the resources to limit the spread of the disease through voluntary action. Focusing on cooperation will not only lead to better outcomes, but will also make the use of coercive methods more effective in the rare cases in which they are needed.

Furthermore, the cooperative model's emphasis on encouraging greater public participation in issues that directly affect people's lives provides ancillary benefits. The model encourages dual-use expenditures that will strengthen the public health infrastructure as a whole. Politically, the cooperative model reflects long-standing progressive values that call for the protection of individual rights, more responsive public institutions, and a greater focus on the matters most important to local communities. Increased citizen participation would benefit the public health system more broadly, improv-

¹⁰⁵ See U.S. DEP'T OF HEALTH & HUMAN SERVS., *supra* note 100, at 20–21.

¹⁰⁶ See, e.g., NANCY KARI ET AL., CIVIC PRACTICES NETWORK, HEALTH AS A CIVIC QUESTION (1994), <http://www.cpn.org/topics/health/healthquestion.html> (on file with the Harvard Law School Library).

¹⁰⁷ See Louise G. Trubek, *New Governance Practices in US Health Care*, in LAW AND NEW GOVERNANCE IN THE EU AND THE US 245, 253–55 (Grainne de Burca & Joanne Scott eds., 2006). The success of a collaborative is determined by a wide range of factors, such as transparency and effectiveness, which mirror the factors discussed by Benkler as necessary to foster cooperation. See *id.* at 256–57.

ing public compliance and utilizing community knowledge to address local health problems. And a participatory and cooperative public health system would be a step toward realizing the goal of progressives to marry expert analysis with participatory decision-making and citizen engagement, and the goal of bioethics to empower patients to take a more active role in their treatment. When combined with the cooperative model's greater effectiveness, this grounding in fundamental progressive values makes it the better choice for progressive policymakers and bioethicists alike.

