

Bioterrorism and the Use of Fear in Public Health

Edward P. Richards¹

Professor of Law, Louisiana State University School of Law; M.P.H., University of Texas School of Public Health, 1983; J.D., University of Houston Law Center, 1978; B.A. Rice University, 1972.

Terry O'Brien²

Independent Consultant on Public Health.

Katharine C. Rathbun³

Associate Professor, Louisiana State University School of Medicine.

IN 1910, ROSENAU, the father of preventive medicine in the United States, wrote:

Fear is lessening, but we would not want it to disappear entirely, for while it is a miserable sensation, it has its uses in the same sense that pain may be a marked benefit to the animal economy, and in the same sense that fever is a conservative process. Reasonable fear saves many lives and prevents much sickness. It is one of the greatest forces for good in preventive medicine, as we shall presently see, and at times it is the most useful instrument in the hands of the sanitarian.⁴

Rosenau was writing about the core problem in assuring continuing support for public health: when public health is working, the public

1. formerly, Executive Director, Center for Public Health Law, Professor of Law, University of Missouri Kansas City School of Law, richards@lsu.edu. More information on bioterrorism can be found at <http://biotech.law.lsu.edu/blaw/Bioterror.htm>.

2. Terry O'Brien, J.D., is a former Assistant Attorney General for the State of Minnesota in charge of public health enforcement. He worked on many nationally prominent public investigations. He is now an independent consult on public health and policy law. He can be reached at the University of Minnesota Medical Center, Center for Infectious Disease Research & Policy, Mayo Memorial Building, MMC 263, 420 Delaware Street S.E., Minneapolis, MN 55455.

3. Katharine C. Rathbun, M.D., M.P.H., is Board Certified in public health and general preventive medicine, and has run both small and large city health departments. She has co-authored many works on public health law and policy and is currently.

4. M. J. Rosenau, *The Uses of Fear in Preventive Medicine*, 62 BOSTON MEDICAL AND SURGICAL J. No. 10, 305-307 (Mar. 10, 1910), available at http://biotech.law.lsu.edu/cphl/history/articles/rosenau_fear.htm (last visited July 7, 2002).

does not have to worry about communicable diseases and other threats to health, so the public is no longer willing to commit resources or undergo deprivations to further the public's health. By 1910, the sanitary revolution had reduced the incidence of such diseases as yellow fever and cholera.⁵ Rosenau noted that a few cases of disease each fall did wonders for insuring that local politicians continued to support the public health system.⁶

Since 1910, public health care has continued to improve life expectancy and to reduce the public fear of communicable diseases.⁷ Public awareness has shifted from communicable disease control to control of chronic diseases such as diabetes, arthritis, cancer, and heart disease—diseases in which genes and behavior, rather than contagion, are the dominate concern.⁸ Support for public health control diminished as fear of communicable disease diminished, until the Institute of Medicine (IOM)⁹ described the system as, “a hodgepodge of fractionated interests and programs, organizational turmoil among new agencies, and well-intended but unbalanced appropriations-without coherent direction by well-qualified professionals.”¹⁰ When the IOM's Committee on Emerging Microbial Threats to Health revisited the issue in 1992,¹¹ it reported:

It is the committee's view that there has been little positive change in the U.S. public health system since the release of [the 1988 IOM] report. The recent rapid increases in the incidence of measles and tuberculosis are evidence of these continuing problems. Steps have been taken to address inadequacies in these programs, but these responses are reactive, not proactive. It is the committee's belief that the *prevention* of infectious diseases must be stressed if the health of this nation's inhabitants is to be maintained or improved.¹²

5. *See id.*

6. *Id.*

7. AIDS/HIV has been a special case because it is seen as a problem of marginalized groups, and because the AIDS advocacy groups have generally been more concerned about privacy and personal liberty than with controlling the spread of the disease through traditional public health means. *See* Edward P. Richards & Guthrie S. Birkhead, *Blood-borne and Sexually Transmitted Infections*, in *LAW AND PUBLIC HEALTH PRACTICE* (Richard Goodman et al. eds., forthcoming 2002); Edward P. Richards, *HIV/AIDS Testing, Screening, and Confidentiality: The United States Experience*, in *HIV/AIDS: TESTING, SCREENING, AND CONFIDENTIALITY* (Rebecca Bennett & Charles A. Erin eds., 1999); Edward P. Richards & Donald C. Bross, *Legal and Political Aspects of STD Control: Public Duties and Private Right*, in *SEXUALLY TRANSMITTED DISEASES* (King Holmes et al. eds., 3d ed., 1998).

8. These are all diseases of an older population that were masked in earlier times because of the short life expectancy.

9. INSTITUTE OF MEDICINE. *THE FUTURE OF PUBLIC HEALTH* (National Academy Press 1988).

10. *Id.* at 139.

11. *EMERGING INFECTIONS: MICROBIAL THREATS TO HEALTH IN THE UNITED STATES* (J. Lederberg et al. eds., 1992).

12. *Id.* at 7. Since these reports, the Centers for Disease Control (CDC) has expanded its initiative on controlling emerging infections, but the overall U.S. public health

Since September 11, the public health system has been plagued by concerns that it is inadequate to manage a bioterrorism outbreak.¹³ The federal government has promised billions of dollars to fight bioterrorism; and most states have announced plans to develop their own homeland defense systems. The Centers for Disease Control and Prevention supports the promulgation of a Model State Emergency Health Powers Act (Act), which essentially presumes that state governments are powerless to manage public health emergencies.

This article examines the challenges that bioterrorism poses for today's cities. The article first describes how bioterrorism fits into general public health issues. It then evaluates the state and federal powers available to manage bioterrorism incidents. Finally, the article proposes a practical alternative to ill-conceived strategies such as the Model State Emergency Health Powers Act. The authors conclude that while changes do need to be made in many state public health laws, the need for change is relatively minor. The public health system itself needs reorganization and adequate support, which will improve routine public health and better prepare the United States to manage a bioterrorism incident. More importantly, failings in the public health system result in the unnecessary loss of thousands of lives every year.¹⁴ These lives could be saved irrespective of whether the United States ever faces a major bioterrorism attack.

I. September 11 and Fear in Public Health

Before September 11, public health professionals were ambivalent about using fear to advance public health and safety. Fear, in the form

system is in worse disarray than when last studied by the IOM. See Centers for Disease Control and Prevention, *Addressing Emerging Infectious Disease Threats: A Prevention Strategy for the United States* (1994) available at http://www.cdc.gov/ncidod/publications/eid_plan/default.htm (last visited July 7, 2002).

13. The anthrax exposures secondary to a few anthrax contaminated letters claimed few lives, but paralyzed the postal system in many cities. Tens of thousands of worried individuals took Cipro as prophylaxis against anthrax, at significantly greater risk from the potential side-effects of Cipro than from small probability that they had been exposed to anthrax.

14. For discussions of waterborne illness problems, see Centers for Disease Control and Prevention, *Outbreak of E. coli O157:H7 and Campylobacter—New York, 1999*, 48 MORBIDITY & MORTALITY WKLY. REP. 803 (Sept. 27, 1999); Centers for Disease Control and Prevention, *A Survey of the Quality of Water Drawn from Domestic Wells in Nine Midwest States*, at <http://www.cdc.gov/nceh/emergency/WellWater/default.htm> (last visited Mar. 18, 2002); Centers for Disease Control and Prevention, *Assessing the Public Health Threat Associated With Waterborne Cryptosporidiosis: Report of a Workshop*, 44 MORBIDITY & MORTALITY WKLY. REP. (Recommendations & Reports No. RR-6) (June 16, 1995). For a discussion of food-related illness problems, see Paul S. Mead et al., *Food-related Illness and Death in the United States*, 5 EMERGING INFECTIOUS DISEASES 607 (1999).

of “neutral” information about health, is the primary tool for fighting tobacco use. In food safety, fear has been downplayed to reassure the public about the safety of the food supply. In HIV control, public health information attempts a “balance of terror”—the public should be afraid enough of HIV to take personal precautions, but not so afraid as to want to restrict others.¹⁵ Since September 11, bioterrorism has become a “hot button” issue.

Bioterrorism is not a new issue—cold war fears of bioterrorism in the 1950s were used to convince Congress to fund the transformation of what had been the Malarial Control Center into the modern Centers for Disease Control and Prevention.¹⁶ Since September 11, the fear of bioterrorism has driven politicians and government agencies to “do something” to stave off criticism they were not ready for the terrorist attack and are unprepared for a possible bioterrorist attack. This can be very beneficial. Many important federal agencies, including the FDA, have their roots in legislation passed in the wake of public outcries.¹⁷ A proper understanding of what is really necessary to manage the public health consequences of bioterrorism could lead to long-term improvements in the public health system, with benefits far beyond the management of bioterrorism. All evidence so far indicates that the responses to bioterrorism will be short-term and will not address the fundamental failings in the public health system. For example, the mismanagement of the anthrax exposures is a failure of simple public health practices.¹⁸ Passing the Model Emergency Health Powers Act, with its Draconian public health powers, would have made no difference. What is necessary is more difficult and less glamorous: a rebuilt public health infrastructure, adequate funding for public health practice, and the development of systems that will protect career public health professionals from political retribution for doing their jobs.

15. See Edward P. Richards & Guthrie S. Birkhead, *Blood-borne and Sexually Transmitted Infections*, in *LAW AND PUBLIC HEALTH PRACTICE* (Richard Goodman et al. eds., forthcoming 2002).

16. See CDC Timeline, at <http://www.cdc.gov/od/oc/media/timeline.htm>.

17. In 1937, a drug company marketed Elixir Sulfanilamide, a sweet, syrupy preparation of the then-new antibiotic sulfanilamide. The drug was dissolved in diethylene glycol, a sweet, viscous liquid which is now used for permanent antifreeze. Unfortunately, no toxicity tests were done. At least seventy-three, and perhaps more than ninety, children died before the elixir was removed from the shelves. The subsequent outcry lead Congress to pass the Food, Drug, and Cosmetic Act of 1938, which was the foundation for regulating the introduction of new drugs into the market. DAVID F. CAVERS, *THE FOOD, DRUG, AND COSMETIC ACT OF 1938: ITS LEGISLATIVE HISTORY AND ITS SUBSTANTIVE PROVISIONS*, quoted in PETER BARTON HUTT & RICHARD A. MERRILL, *FOOD AND DRUG LAW* 476 (2d ed. 1991).

18. See Lawrence K. Altman & Gina Kolata, *Anthrax Missteps Offer Guide to Fight Next Bioterror Battle*, N.Y. TIMES, Jan. 6, 2002, at A1.

Bioterrorism is a poor vehicle for the long-term building of public health infrastructure for one key reason. Unless the United States faces fairly regular bioterrorism attacks, or attacks with substantially higher death rates than the anthrax attack, it will be impossible to sustain public, and therefore political, support. Dollars will be diverted to police, firefighters, and the military because they are visible warriors with very strong lobbies. The public health warriors—epidemiologists, food inspectors, sanitation workers, public health physicians—have neither the visibility nor the public relations clout of the paramilitary organizations. This article criticizes one aspect of this problem: the substitution of real public health law reform with simplistic model acts that will divert legislative efforts from the real problems of public health law.

A. Is Chemical and Biological Terrorism a Real Threat?

In April 2000, the Centers for Disease Control published its report, *Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response*.¹⁹ This report concluded that the United States was vulnerable to chemical and bioterrorism acts.²⁰ While couched in the CDC's usual low-key language, the report also makes clear that such attacks are likely in the future.²¹ Chemical and bioterrorism are especially troubling post-Superpower threats because they do not demand sophisticated delivery systems and, in the case of chemical terrorism, can use materials available through bulk commercial channels.²² This was borne out in the post-September 11 anthrax incident, which was very low-tech and created panic far beyond its real threat.²³

B. Chemical Terrorism

Chemical weapons were used by the Chinese and Greeks and others over 2,000 years ago,²⁴ but did not become a serious threat until modern

19. Centers for Disease Control and Prevention, *Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response*, MORBIDITY & MORTALITY WKLY. REP. (Apr. 21, 2000), available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4904a1.htm>.

20. *See id.*

21. For a more specific discussion of the risks, see U.S. ARMY MEDICAL MANAGEMENT OF BIOLOGICAL CASUALTIES HANDBOOK (1999).

22. For these purposes, biological toxins such as ricin and aflatoxin would be considered with chemical agents because they are not self-replicating.

23. At the time of publication, the person or persons behind the anthrax incident still were unidentified and it has not been determined whether this was international terrorism, domestic terrorism, or an attack by an isolated disaffected individual.

24. OFFICE OF THE SURGEON GENERAL, MEDICAL ASPECTS OF CHEMICAL AND BIOLOGICAL WARFARE, 11 (Russ Zajtchuk & Ronald F. Bellamy eds., 1997).

chemistry in the mid- and late-1800s led to the isolation of chlorine, hydrocyanic acid, and the development of specific chemical warfare agents, such as mustard gas and phosphene. These were used to devastating effect on troop morale in the First World War²⁵ and, while subject to international treaties, have been used sporadically since.

The archetypical modern chemical terrorism attack was the Sarin gas attack in the Tokyo subway.²⁶ Such an attack produces maximum terror because it is sudden and unexplained and can produce substantial casualties under the right conditions. It is very analogous to the traditional terrorist weapon, the bomb, but with a much more complicated cleanup. Bombing-style attacks are characterized by immediate knowledge of the attack, either because of causalities or because the attack is announced by the terrorists. Chemical attacks are more likely than biological attacks to have immediate casualties. Biological attacks, unless announced, will tend to go undetected for the incubation period of the illness, which can be from hours to days. While there have been numerous announced bioterrorism attacks, usually against abortion clinics, all have proven to be hoaxes.²⁷ The limited number of known bioterrorism attacks with real agents were only detected after the fact through epidemiologic investigations or through evidence provided by an insider.²⁸ The Sarin attack is an example of a rapidly toxic agent

25. *Id.*

Gas! GAS! Quick, boys!—An ecstasy of fumbling,
Fitting the clumsy helmets just in time;
But someone still was yelling out and stumbling
And flound'ring like a man in fire or lime . . .
Dim, through the misty panes and thick green light,
As under a green sea, I saw him drowning.
In all my dreams, before my helpless sight,
He plunges at me, guttering, choking, drowning.

Wilfred Owen, *Dulce et Decorum Est*, in *MEDICAL ASPECTS OF CHEMICAL AND BIOLOGICAL WARFARE*, frontispiece (Russ Zajtchuk & Ronald F. Bellamy eds., 1997).

26. Sadayoshi Ohbu et al., *Sarin Poisoning on Tokyo Subway*, 90 S. MED. J. 587, 587–93 (1997).

27. See David Johnston, *Agents Start Digging Up Old Files on Hoaxes*, N.Y. TIMES, Oct. 27, 2001, at B6.

28. The case of the Rajneeshee religious cult in The Dalles, Oregon, is an example. The cult planned to infect residents with salmonella on election day to influence the results of county elections. To practice for the attack, they contaminated salad bars at ten restaurants with *S. Typhimurium* on several occasions before the election. A community-wide outbreak of salmonellosis resulted; at least 751 cases were documented in a county that typically reports fewer than five cases per year. Although bioterrorism was considered a possibility when the outbreak was being investigated by public health officials, it was considered unlikely. The source of the outbreak became known only when the FBI investigated the cult for other criminal violations.

Joseph E. McDade & David Franz, *Bioterrorism as a Public Health Threat*, 4 EMERGING INFECTIOUS DISEASES 493, 493 (1998).

whose effects are immediately apparent. Terrorists could also use a slow-acting poison, such as organic mercury, if they wanted to expose a large number of persons before the attack was discovered. Slow acting poisons more closely resemble bioterrorism attacks, because the delay in onset makes it more difficult to find the original source of contamination and because the victims will be more widely distributed when they are discovered.

In effect, this has happened accidentally on two occasions when animal feed was contaminated and the contaminated meat and milk entered the commercial distribution chain before the contamination was detected.²⁹

Slow poison attacks pose public health surveillance issues because their onset of action will be insidious and in a dispersed population, and because finding all the exposed persons will require traditional epidemiologic investigations. Slow poison attacks are less threatening, however, because of the problems entailed in dispersing enough poison in a stable form without causing illness or detectable contamination. Unlike biological agents, which can multiply and thus amplify themselves, the initial dose of chemical agents must be sufficient to provide a toxic dose in the final dilution. For example, a popular terrorism scenario is poisoning the water system of a community by dumping a chemical agent in the reservoir. A reservoir will typically have millions or tens of millions of gallons of water. Making a glass of water toxic would require dumping a very large amount of poison into the reservoir. While this is possible, it would require barrels or a tanker truck, rather than a lone terrorist with a backpack. The agent would have to be dispersed and mixed into the reservoir to be effective.³⁰ While gas agents are much easier to disperse, they are very hard to control and the party using the gas agent is also at significant risk. The difficulty of controlling chemical attacks limited their usefulness in war and made it easier to have the use of chemical weapons banned through international treaties. Unfortunately, since terrorists are not bound by international treaties and are often willing to die along with the victims, they are not reluctant to use difficult-to-control agents such as toxic

29. Mary Thornton, *Firm Agrees to Pay \$38.5 Million for Michigan Cleanup*, WASH. POST, Nov. 19, 1982, at A4.

30. The Japanese group, Aum Shinri Kyo, had expert chemists and significant resources, but was unable to mount the devastating attack that it had intended. Although this is no assurance that another terrorist group, especially one willing to use a suicide attack, would not be more successful, it nevertheless demonstrates the difficulty of mounting a massive chemical attack.

gases.³¹ Thus, chemical terrorism can be managed with the same infrastructure and laws as bioterrorism and will not be discussed separately.

C. Bioterrorism

Bioterrorism is one of the oldest tactics in warfare. Long before Snow worked out the mechanism of cholera transmission through drinking water³² and Koch formalized the notion of infectious disease with his Postulates,³³ armies knew that throwing corpses and dead animals into water supplies was an effective way to limit the progress of an invading force. Catapults were used to hurl plague victims over city walls, and defenders dumped excrement on troops trying to scale castle walls.³⁴ The strongest ally of the European invaders in the new world was communicable disease; without it, a handful of troops could never have subdued indigenous peoples.³⁵ In the modern world, bacterial agents can be grown with simple equipment found in any hospital or school science department. Even viral agents can be cultivated with readily available equipment found in most universities that conduct biological sciences research. Some of the agents, such as anthrax and botulism, are ubiquitous in the environment and can be easily isolated. Others are difficult to find in the wild and the commercial sources are strictly monitored, but since they are so easy to ship and exchange, a breach of security anywhere in the world can seed far flung terrorist laboratories.

Bioterrorism using infectious agents has two unique characteristics:

1. The agent is self-replicating, i.e., once introduced, it can reproduce and spread on its own in the environment; and
2. Infectious agents that are spread by personal contact turn the victims into vectors for the disease.³⁶

These characteristics allow the exponential spread of the disease until it begins to reach saturation in the population, and facilitates widespread distribution through private and mass transportation. Such self-

31. When biochemical toxins such as botulism toxin or ricin are used, rather than infectious agents, there is no meaningful difference between chemical and biological terrorism.

32. JOHN SNOW, *ON THE MODE OF TRANSMISSION OF CHOLERA* (Churchill, London, 1855).

33. See Koch's Postulates, at <http://www.sci.wsu.edu/bio/micro310koch.html>.

34. OFFICE OF THE SURGEON GENERAL, *MEDICAL ASPECTS OF CHEMICAL AND BIOLOGICAL WARFARE 10* (Russ Zajtchuk & Ronald F. Bellamy eds., 1997).

35. WILLIAM. H. MCNEILL, *PLAGUES AND PEOPLES* (1976).

36. To a limited extent, this also can be true for chemical agents as people carry toxins on their clothes, but the process of decontamination is simple and only momentarily intrusive.

propagation makes biological terrorism more difficult to control than chemical terrorism. Most troubling, it can turn the victims into the vectors for further spread of the diseases. The heart of the deep-seated fears of bioterrorism is that it can make your own friends and family into threats. The persons most severely affected by the attack may also face substantial restrictions of their individual liberty to contain the spread of the disease. Depending on the disease, these restrictions could include complete biological isolation of the individual until death or cure.³⁷ In the worst case scenario, biological isolation facilities would be overwhelmed because there are very few such facilities in any given area and no way to safely transport people to them over any significant distance. Thus, the government's options at that point are all bad: either let exposed persons go free and risk the spread of disease, or seal them in an isolated building until the disease runs its course. These are powerful images that have already been exploited in the popular media and are part of the public consciousness.³⁸

D. *Bioterrorism Policy*

A bioterrorism policy must find a balance between complacency and fear. Complacency creates the risk that nothing will get done because state and local governments only spend money on things that voters care about, and voters only care about public health when they are afraid. While fear is essential to public action, it has risks. Before September 11, the chief risk was looking foolish when the threat fails to materialize. After the Swine Flu episode, the federal government's public health authorities became very concerned about losing credibility by "crying wolf."³⁹ This made them reluctant to advocate politically unpopular policies.⁴⁰

Even before September 11, Congress was aware the United States was unprepared for major bioterrorism incidents and passed laws that asked the Centers for Disease Control and Prevention (CDC) and other federal agencies to address bioterrorism through existing public health

37. This is already the case with some persons infected with pan-drug resistant tuberculosis: if the strain of the bacterium cannot be made non-infectious, the infected individual must remain in restrictive house arrest or in formal biological isolation until the disease resolves spontaneously or the patient dies.

38. See MICHAEL T. OSTERHOLM & JOHN SCHWARTZ, *LIVING TERRORS: WHAT AMERICA NEEDS TO KNOW TO SURVIVE THE COMING BIO-TERRORIST CATASTROPHE* (2000).

39. R. NEUSTADT & H. FINEBERG, *THE EPIDEMIC THAT NEVER WAS* (1983).

40. This is especially true for the Centers for Disease Control because it is not an enforcement agency. It does research, provides information, coordinates state and federal activities, and provides expertise for local public health when requested by the state. This makes it dependent on the good will of the states and the public.

and emergency management channels, urging the states to develop action plans and strategies to deal with bioterrorism.⁴¹ While not explicitly stated in the government's planning documents, this strategy is consistent with the view that bioterrorism threats are on a continuum with traditional public health threats, and for most of the continuum bioterrorism does not pose risks significantly in excess of natural disease outbreaks.⁴² It also leaves the burden of preparation on local and state entities, which will rightly take most of the blame if an incident is handled improperly. Most importantly, this is all the CDC is able to do unless Congress fundamentally alters the legal relationship between the CDC and the states.

After September 11, the risk of non-action shifted to the risk of over-reaction. Whenever there is a crisis, state legislatures and Congress pass new laws and presidents take executive action.⁴³ Sometimes these laws are important and have long-term benefits to the public.⁴⁴ Sometimes they are terribly destructive and leave lasting scars.⁴⁵ If the laws are overly broad and threaten individual liberties and existing government organization, they risk alienating the general public. All public health depends to a great extent on public cooperation. If the public is afraid that public health authority will be used improperly, it will be less likely to cooperate personally and to support public health actions politically. Secondly, public health jurisprudence is very complex. It is intimately tied up in state constitutional authority, case precedent, and state leg-

41. In the Defense Against Weapons of Mass Destruction Act of 1996, Congress made the following findings:

- (19) the . . . U.S. lacks adequate planning and countermeasures to address the threat of nuclear, radiological, biological and chemical terrorism.
- (21) state and local emergency response personnel are not adequately prepared or trained for incidents involving nuclear, radiological biological and chemical materials;
- (22) exercises of the federal, state and local response to nuclear, radiological, biological or chemical terrorism have revealed serious deficiencies in preparedness and severe problems of coordination.

In the Defense Against Weapons of Mass Destruction Act of 1996, Pub. L. No. 104-201, § 1402.

42. This is not to underestimate natural infectious disease epidemics. HIV has significantly increased excess mortality in the United States, and worldwide infectious diseases are still the leading cause of death.

43. See Exec. Order No. 13228 (2001), available at <http://www.whitehouse.gov/news/releases/2001/10/20011008-2.html> (establishing the Office of Homeland Security and the Homeland Security Council).

44. The predecessor agency to the Food and Drug Administration was formed after the public outcry over the publication of Upton Sinclair's novel, *The Jungle*, which exposed the horrors of the meat packing industry.

45. See, e.g., Alien and Sedition Acts; *Korematsu v. United States*, 323 U.S. 214 (1944).

isolation. As will be discussed later, states have very broad powers, which are more than adequate to manage both routine public health and bioterrorism incidents. The way these powers are deployed varies greatly from state to state. A one-size-fits-all model act imposed over this network of state laws, cases, and constitutional restrictions will generate conflicts with state law, complicate enforcement of existing laws, and potentially reduce the states' ability to respond to public health threats. It can also encourage overreaction by state officials, especially those who are not public health experts, and thus unnecessarily undermine civil liberties.

As discussed in the final section of this article, the most important problem with the Model State Emergency Health Powers Act (the Act) and other legislative quick fixes is that they do not address public health infrastructure problems or the real legal problems that frustrate both routine public health and an effective response to bioterrorism. One example was highlighted by the anthrax exposures: first line health care providers are not very good at identifying or reporting unusual communicable diseases. Yet, one of the most important issues in managing a bioterrorism incident is early recognition that there has been an incident. The routine public health diagnosis and reporting system does not work very well. The legal and public health system changes necessary to improve reporting are not addressed in the Act, and will be more difficult to enact since any legislature that passes the Act will assume it has now solved the bioterrorism problem.

II. The State Police Power

Legal authority to manage bioterrorism has divided the legal and public health communities. Some scholars have consistently argued that the existing public health laws are too broad and give the state too much power to be prudent under modern constitutional jurisprudence.⁴⁶ Since September 11, there have been calls from the CDC and others to pass Draconian emergency powers laws that would sweep away traditional public health laws. The authors of this article believe that existing public health laws are essentially adequate for managing both routine public health and bioterrorism.⁴⁷ This belief is rooted in the broad powers granted to the states to protect the health and safety of their citizens.

46. Larry Gostin, *Compulsory State Powers, Public Health, and Civil Liberties*, 49 OHIO ST. L.J. 1017 (1989).

47. As discussed *infra*, the existing laws do need some revision, but this is incremental change, not complete revision.

Unlike many areas of jurisprudential controversy, such as abortion, it is clear that the drafters of the Constitution were well aware of the problems posed by communicable diseases, because pestilence was part of every day colonial life and a constant threat that contributed to a life expectancy of only twenty-five years.⁴⁸ In fact soon after the Constitution was ratified, an epidemic of yellow fever raged in New York and Philadelphia.⁴⁹ The prevalent attitude of that period toward disease was captured in an argument before the Supreme Court:

For ten years prior, the yellow-fever had raged almost annually in the city, and annual laws were passed to resist it. The wit of man was exhausted, but in vain. Never did the pestilence rage more violently than in the summer of 1798. The State was in despair. The rising hopes of the metropolis began to fade. The opinion was gaining ground, that the cause of this annual disease was indigenous, and that all precautions against its importation were useless. But the leading spirits of that day were unwilling to give up the city without a final desperate effort. The havoc in the summer of 1798 is represented as terrific. The whole country was roused. A *cordon sanitaire* was thrown around the city. Governor Mifflin of Pennsylvania proclaimed a non-intercourse between New York and Philadelphia.⁵⁰

These extreme actions, including isolating the federal government, which was sitting in Philadelphia at the time, were accepted as necessary. It was this personal experience with the reality of epidemic disease that caused the drafters of the U.S. Constitution to leave the states almost unfettered in their authority to deal with threats to the public health:

Every state has acknowledged power to pass, and enforce quarantine, health, and inspection laws, to prevent the introduction of disease, pestilence, or unwholesome provisions; such laws interfere with no powers of Congress or treaty stipulations; they relate to internal police, and are subjects of domestic regulation within each state, over which no authority can be exercised by any power under the Constitution, save by requiring the consent of Congress to the imposition of duties on exports and imports, and their payment into the treasury of the United States.⁵¹

These are called the police powers.⁵² Most public health police powers are exercised by health officers, fire marshals, sheriffs, and judges. The police powers:

form a portion of that immense mass of legislation which embraces every thing within the territory of a state, not surrendered to the general government: all which

48. L. SHATTUCK, REPORT OF THE SANITARY COMMISSION OF MASSACHUSETTS 1850. (Harv. Univ. Press, facsimile ed., 1948).

49. See *Smith v. Turner*, 48 U.S. 283, 340–41 (1849).

50. *Id.*

51. *Holmes v. Jennison*, 39 U.S. 540, 616 (1840).

52. The term police does not refer to police departments, which did not exist in their present form until much later. It refers to the older meaning of the word “police”—to keep order. The state’s police powers deal with general issues of public health and safety, not the punishment of criminals.

can advantageously be exercised by the States themselves. Inspection laws, quarantine laws, and health laws of every description . . . are component parts of this mass.⁵³

It appears clear that the constitutional drafters presumed the preexistence of sovereign police powers.⁵⁴ Throughout U.S. history, the Supreme Court has reaffirmed the authority of the several states to exercise their police powers to protect public health.⁵⁵ Indeed, both the Supreme Court,⁵⁶ and the state courts,⁵⁷ have stated that the preservation of the public health is the most important duty devolving upon the state as a sovereign power.⁵⁸ As discussed in the section on federal powers, the federal government has many emergency powers that allow it to respond to insurrections, attacks, and interstate emergencies. Routine public health is a state matter, and most of the public health actions necessary to respond to a bioterrorism attack would fall to the states.⁵⁹

The police powers include the right to exercise basic communicable disease control activities that are at the heart of managing the public health aspects of a bioterrorism incident: (1) require reporting of private medical data to governmental agencies, (2) search medical and hospital records to locate information about the spread of communicable diseases, (3) immunize persons against infectious diseases, (4) collect specimens, perform laboratory tests, and medically examine persons

53. *Gibbons v. Ogden*, 22 U.S. 1, 87 (1824).

54. LAWRENCE H. TRIBE, *AMERICAN CONSTITUTIONAL LAW* 379 (2d ed. 1998).

55. *See Medtronic, Inc. v. Lohr*, 518 U.S. 470, 474 (1996).

56. *See Jacobson v. Mass.* 197 U.S. 11 (1905).

57. *See Schulte v. Fitch*, 202 N.W. 719 (1925).

58. "The exercise of the police powers is really what [state] government is about: it defines the very purpose of government. Thus on the state level, the power to provide for and protect the public health is a basic, inherent power of the government." FRANK GRAD, *PUBLIC HEALTH LAW MANUAL* 10 (2d ed. 1990).

59. Section 243 of 42 U.S.C. (1994), entitled "Federal-State Cooperation," grants authority for the states and the federal government to cooperate with respect to quarantines. Section 264 of 42 U.S.C. (1994) authorizes the Surgeon General with the approval of the Secretary of Health and Human Services to make and enforce regulations to prevent the spread of diseases, including the quarantine of infected or suspect cases. But these rules apply only to persons traveling in interstate or foreign commerce. Neither the statute nor the regulatory program constitute or establish a national quarantine system for citizens within a state. Even if it were legal to invoke this authority following a bioterrorist incident, which nobody has asserted, the practical mechanisms of identifying carriers of infectious disease who intend to travel across state lines are, at best, unclear. What is clear, however, is that no federal statute or authorized federal official has ever purported that the United States has authority to exercise personal control mechanisms upon persons residing within a state and planning to stay within the state. Indeed, a representative from the Emergency Response Coordination Group of the Centers for Disease Control and Prevention acknowledges that following a biologic attack, mass restrictions and quarantine power is vested in state health offices. Section 266 of 42 U.S.C. (1994) authorizes limited CDC quarantine power "in time of war."

without their consent, (5) treat persons without their consent, (6) restrict the disease carrier's occupation, (7) restrict the freedom of association and movement of disease carriers, and (8) seize and destroy property which threatens the public health.⁶⁰

Every state has enacted laws and/or regulations to enable public health authorities to carry out these powers. These powers have withstood all challenges under the U.S. Constitution and under state constitutions.⁶¹ Each state has implemented these powers differently, and they are all subject to state constitutional law constraints. During the 1980s and 1990s these laws were weakened in many states because civil liberties groups distrusted public health authorities and feared that they would persecute persons with AIDS.⁶² Ironically, the strongest push for Draconian public health powers is from scholars who, until September 11, were most vocal in attacking public health laws as too broad and overreaching.⁶³

As discussed later in this article, no state public health laws are perfect. All should be comprehensively reviewed to identify weaknesses and areas where lines of authority are blurred or the traditional police powers have been unduly weakened by subsequent legislation. These problems should be corrected with narrow, specifically tailored legislation, which would assist with managing bioterrorism and, more generally, improve the legal climate for general public health enforcement. It is not, however, necessary or sufficient for managing a bioterrorism incident. It is not necessary because, as state and federal court decisions from the colonial period to today that have dealt with public health have made clear, no court will stand in the way of a state acting in the face of a near and present danger.⁶⁴ There may be subsequent

60. Edward P. Richards, *Communicable Disease Control in Colorado: The Rational Approach to AIDS*, 65 DENV. U. L. REV. 127, 133-34 (1988); see also CENTERS FOR DISEASE CONTROL AND PREVENTION, ADDRESSING EMERGING INFECTIOUS DISEASE THREATS: A PREVENTION STRATEGY FOR THE UNITED STATES (1994).

61. See Edward P. Richards, *The Jurisprudence of Prevention: The Right of Societal Self-Defense Against Dangerous Individuals*, 16 HASTINGS CONST. L.Q. 329, 391 (1989).

62. See Edward P. Richards, *HIV/AIDS Testing, Screening, and Confidentiality: The United States Experience*, in HIV/AIDS: TESTING, SCREENING, AND CONFIDENTIALITY (Rebecca Bennett & Charles A. Erin eds., 1999).

63. See Lawrence Gostin et al., Model State Emergency Health Powers Act, available at <http://biotech.law.lsu.edu/blaw/bt/MSEHPA.pdf>; see also George J. Annas, *Bioterrorism, Public Health, and Civil Liberties*, 346 NEW ENG. J. OF MED. 1337 (2002) (providing a criticism of Gostin's proposed act).

64. Even if a trial judge were to issue such an improvident order, the appeals judges would rapidly overturn it. "It is not for the courts to determine which scientific view is correct in ruling upon whether the police power has been properly exercised. The judicial function is exhausted with the discovery that the relation between means and ends is not wholly vain and fanciful, an illusory pretense." *City of New York v. New*

damage litigation under state tort law, 42 U.S.C. § 1983, or other retrospective remedies, but no judge is going to stop the quarantining of smallpox carriers or otherwise overrule emergency decision making by public health authorities. If anything, history tells us that judges are as likely to overreact as laypersons, and, if allowed to make public health decisions, they will provide even less protection for individual liberties than will public health professionals.

Law reform is also not sufficient for improving the public health response to bioterrorism. One of greatest concerns following September 11 is that politicians will substitute new laws for the long-term and expensive rebuilding of the public health infrastructure. As model bioterrorism exercises illustrate, the central problems are lack of expert personnel as first responders and lack of effective command and control structures for directing first response and follow-up personnel. Both problems demand planning, training, and support of personnel, none of which are affected by new legal powers.

III. Federal Authority

One of the motivations for drafting the Constitution of 1789 was the lack of federal power to raise troops to fight the Revolutionary War under the Articles of Confederation. Since this was a war fought on American soil controlled by the sovereign states, it is clear that the drafters anticipated that the federal government would have the right to some military presence in the states. Unlike the police powers, which were left to the states with no specific restrictions,⁶⁵ federal military presence in the states did concern the drafters and was limited by the Constitution.

While it is clear that federal powers are more circumscribed by laws and court decisions, the same conclusion must be drawn as to state laws: there is no precedent allowing courts to stop federal action against a near and present danger. Further, there is evidence that the U.S. Supreme Court has intentionally avoided rulings that would place it directly in opposition to the executive branch in situations in which national security would be jeopardized.⁶⁶

Saint Mark's Baths, 497 N.Y.S.2d 979, 983 (1986) (quoting *Williams v. Mayor of Baltimore*, 289 U.S. 36, 42 (1933)). See also *Compagnie Francaise de Navigation a Vapeur v. Louisiana State Bd. of Health*, 186 U.S. 380 (1902); *Jacobson v. Massachusetts*, 197 U.S. 11 (1905); *Board of Health v. Court of Common Pleas*, 85 A. 217 (1912); *Ex Parte Company*, 139 N.E. 204 (1922); *Ex Parte Caselli*, 204 P. 364 (1922); *In re Halko*, 54 Cal. Rptr. 661 (1966); *Reynolds v. McNichols*, 488 F.2d 1378 (10th Cir. 1973).

65. The Bill of Rights did not apply to the states at the time of the adoption of the Constitution.

66. The classic case is *Marbury v. Madison*, 5 U.S. 137 (1803), in which the court

This section is an overview of the federal and state laws that could be used to manage a bioterrorism incident. This overview does include the basics of laws passed between September 11 and the press date of August 1, 2002, but is not comprehensive. Important laws such as the Homeland Security Act were still in process at this time, and many federal regulations and executive orders and directives likely will be altered and amended in the wake of new legislation. These new laws do not affect the basic premise of this article that an effective response to bioterrorism must begin with improving the staffing, training, and funding of local public health and emergency management departments.

For operational and tactical decisions to respond to a bioterrorist event at any location, the jurisdictional lines between the federal and state governments, as well as among various agencies, are blurred. For example, both the federal Centers for Disease Control and Prevention (CDC) and the states have jurisdiction to quarantine a carrier infected with certain diseases who intends to travel to other states.⁶⁷ Similarly, at the scene of the source of a bioterrorist event, federal officers have jurisdiction to attempt to maintain the integrity of the “crisis” area, but state and local authorities have a responsibility to examine, diagnose, remove, treat, and isolate victims/patients exposed to the pathogenic agent. Although federal troops may assist local and state authorities, the manner and scope of their “assistance” is cloudy.⁶⁸ This is less a legal problem than a political one. As was illustrated by the leadership of Mayor Rudolph Giuliani of New York in the aftermath of September 11, even catastrophic events can be managed within existing laws if there is political will, public support, and adequate resources.

found that it had the right to review the executive branch’s actions, but did so in a way that did not provoke a confrontation with the executive branch. *See also* *Clinton v. Jones*, 520 U.S. 681 (1997). This is also evidenced by the political question doctrine. *See Baker v. Carr*, 369 U.S. 186 (1962).

67. *Interstate Quarantine*, 42 C.F.R. § 70, *et seq.*

68. *See* Chris Seiple, *Consequence Management: Domestic Response to Weapons of Mass Destruction*, *PARAMATERS*, Autumn 1997, at 119–134 (stating “The United States is not ready to address systematically the consequences of a domestic incident involving a weapon of mass destruction. Detection capabilities are limited, integrated analytical and planning methods are proclaimed but not fully understood, and laws about domestic use of military forces need to be reexamined. Most important, there is no understanding of how all the moving parts of a response to such an attack on the United States would function in relation to the requirement and to one another. The whole is not only greater, it is also different than the sum of the parts.”).

A. *Biological Weapons & Toxin Convention*⁶⁹

In 1972, the United States and seventy other nations joined this agreement in which signatories pledged not to make, keep, or acquire biological or toxic weapons. In Article IV, the nations agreed to undertake all necessary steps to prevent development or stockpiling of such weapons by anyone within their jurisdictions.⁷⁰

B. *Chemical and Biological Weapons Control And Warfare Elimination Act of 1991*⁷¹

With respect to nation states, Congress passed this law (December 4, 1991), which establishes systems of economic sanctions and export controls to curb proliferation of biological weapons.⁷² Indeed, countries that violate international law with respect to biological weapons face an array of economic and diplomatic sanctions.

C. *Export Administration Act*⁷³

Congress amended the Export Administration Act of 1979 to prevent U.S. companies and citizens from exporting to certain countries any technologies or goods which might assist a government or group to develop or deliver a biological weapon.⁷⁴ Any company or individual who knowingly violates the Export Administration Act is subject to civil and criminal penalties' including imprisonment of up to one year.⁷⁵

D. *Biological Weapons Anti-Terrorism Act of 1989*⁷⁶

In the past, the major fear concerning biological terrorism was the use of biological weapons in international conflicts by nation states.⁷⁷ More recently, a new class of potential users includes not only rogue states,⁷⁸ but also a variety of nonstate actors, such as religious groups, religious cults, and even individuals. Many of these new parties use biological

69. Bacteriological (Biological) and Toxin Weapons, Mar. 26, 1975, T.I.A.S. No. 8062, 26 U.S.T. 583, 1015 U.N.T.S. 163.

70. James R. Ferguson, *Biological Weapons and U.S. Law*, 279 JAMA 357 (1997).

71. Pub. L. No. 102-182, 105 Stat. 1258 (1991) (codified at 22 U.S.C. §§ 5601-5603 (2000)).

72. See 22 U.S.C. § 2601 (2000).

73. Pub. L. No. 91-184, 83 Stat. 841 (1969) (codified as amended at 50 U.S.C. App. §§ 2401-2419(2002)).

74. See 50 U.S.C. App. § 2401 (2002).

75. 50 U.S.C. App. § 2410 (2002).

76. Pub. L. No. 101-298, 104 Stat. 201 (1990) (codified as amended at 18 U.S.C. §§ 175-178 (2002)).

77. George W. Christopher et al., *Biological Warfare: A Historical Perspective*, 278 JAMA 412 (1997).

78. Raymond A. Zilimskas, *Iraq's Biological Weapons: The Past Is Future?*, 278 JAMA 418 (1997).

weapons not as an instrument of war, but as agents of terror.⁷⁹ In response, the United States, which had previously concentrated on preventing other countries from acquiring biological weapons, is now increasingly focusing on the use of such weapons by nonstate actors.

The Biological Weapons Anti-Terrorism Act of 1989 makes it a federal crime to knowingly develop, manufacture, transfer, or possess any biological agent, toxin or delivery system "for use as a weapon."⁸⁰ Biologic agent includes any microorganism, virus, or infectious substance capable of harming the environment, damaging food, water, or equipment, causing diseases in humans and other living organisms.⁸¹ The statute imposes heavy criminal penalties for those who knowingly violate its prohibitions.⁸²

The law also confers broad civil and investigative powers to prevent the development, production or stockpiling of biological weapons.⁸³ Indeed, the government may apply for a warrant to seize any such agent or system without having to show probable cause that the materials to be seized are intended for use as a weapon, but merely need probable cause to believe that the materials have no apparent peaceful justification.⁸⁴

Moreover, the Biological Weapons Anti-Terrorism Act of 1989 authorizes the government to obtain an injunction prohibiting any party from attempting to develop or possess a pathogen or delivery system having no peaceful justification.⁸⁵ In effect, this provision authorizes the government to move speedily to prevent production of biological weapons in the absence of evidence sufficient to pursue a criminal prosecution. This statute acknowledges that there are legitimate uses for infectious disease agents and biological toxins in the section of the act dealing with seizures of potential bioterrorism agents,⁸⁶ but this

79. See, e.g., Shellie A. Kolavic et al., *An Outbreak of Shigella Dysenteriae Type 2 Among Laboratory Workers Due to Intentional Food Contamination*, 278 JAMA 396 (1997); Torok et al., *A Large Community Outbreak of Salmonellosis Caused by Intentional Contamination of Restaurant and Salad Bars*, 278 JAMA 389 (1997).

80. 18 U.S.C. § 175 (2002).

81. 18 U.S.C. § 178 (2002).

82. 18 U.S.C. § 175 (2002).

83. See 18 U.S.C. §§ 175a, 176 (2002).

84. 18 U.S.C. § 176 (2002).

85. 18 U.S.C. § 177 (2002).

86. (c) Affirmative defense. It is an affirmative defense against a forfeiture under subsection (a)(1)(B) of this section that—

- (1) such biological agent, toxin, or delivery system is for a prophylactic, protective, or other peaceful purpose; and
- (2) such biological agent, toxin, or delivery system, is of a type and quantity reasonable for that purpose.

18 U.S.C. § 176 (2002).

defense does not clearly apply to the primary prohibitions in 18 U.S.C. § 175. Thus, a researcher working with biological toxins for legitimate purposes might have to convince a jury that he or she was not also planning on using these agents for prohibited purposes.

E. *Antiterrorism and Effective Death Penalty Act of 1996*⁸⁷

This legislation provides the federal government with additional tools to fight domestic terrorism. Congress conferred on various agencies a broad range of new investigative, prosecutorial, and regulatory powers dealing with biological weapons.⁸⁸ Congress broadened criminal provisions of the earlier act to encompass anyone who “threatens” or “attempts to” produce or use a biological weapon or uses recombinant technology or other biotechnological advances to create new pathogens or more dangerous forms of existing pathogens.⁸⁹ This legislation builds on provisions concerning the control of communicable diseases in soldiers that dates from World War II.⁹⁰

The Antiterrorism Act of 1996 directed the Centers for Disease Control and Prevention (CDC) to establish a regulatory scheme to identify biological agents posing a threat to the public health and to regulate their transfer and use through federal rules.⁹¹ Under the rules, CDC identified twenty-four infectious agents and twelve toxins that pose a significant risk to public health.⁹² The rules establish procedures for

87. Pub. L. No. 104–132, 110 Stat. 1214 (1996) (codified as amended in scattered sections of titles 8, 18, and 42 of the U.S.C.).

88. See Pub. L. No. 104–132, § 511, 110 Stat. 1214 (1996), available at <http://thomas.loc.gov/cgi-bin/query/z?c104:S.735.ENR>.

89. See Pub. L. No. 104–132, § 511.

90. See, 42 U.S.C. § 266 (2002) (stating “To protect the military and naval forces and war workers of the United States, in time of war, against any communicable disease specified in Executive orders as provided in subsection (b) of section 264 of this title, the Surgeon General, on recommendation of the National Advisory Health Council, is authorized to provide by regulations for the apprehension and examination, in time of war, of any individual reasonably believed (1) to be infected with such disease in a communicable stage and (2) to be a probable source of infection to members of the armed forces of the United States or to individuals engaged in the production or transportation of arms, munitions, ships, food, clothing, or other supplies for the armed forces. Such regulations may provide that if upon examination any such individual is found to be so infected, he may be detained for such time and in such manner as may be reasonably necessary.”).

91. See, Pub. L. No. 104–132, § 511, 110 Stat. 1214 (1996), available at <http://thomas.loc.gov/cgi-bin/query/z?c104:S.735.ENR>; 61 Fed. Reg. 55190 (Oct. 24, 1996); 42 C.F.R. §§ 72.1–72.7 (2002).

92. 42 C.F.R. § 72, App. A (2002) (Viruses: 1. Crimean-Congo haemorrhagic fever virus; 2. Eastern Equine Encephalitis virus; 3. Ebola viruses; 4. Equine Morbillivirus; 5. Lassa fever virus; 6. Marburg virus; 7. Rift Valley fever virus; 8. South American Haemorrhagic fever viruses (Junin, Machupo, Sabia, Flexal, Guanarito); 9. Tick-borne encephalitis complex viruses; 10. Variola major virus (Smallpox virus); 11. Venezuelan Equine Encephalitis virus; 12. Viruses causing hantavirus pulmonary syndrome; and 13. Yellow fever virus. (Exemptions: Vaccine strains of viral agents (Junin Virus strain

identifying facilities possessing such agents and for ensuring that the facilities have appropriate safeguards.⁹³ Any institution or person that acquires any restricted agent, or wishes to, must register with the federal government and designate a “responsible facility individual” who is required to certify specific items.⁹⁴ The government may conduct inspections to determine if the facility meets biosafety level requirements and may approve the laboratory by providing a specific registration number specifying the agents the entity is authorized to work on within prescribed biosafety levels.⁹⁵

The regulations establish procedures for tracking the transfer of agents from one facility to another and require information to be compiled on an official transfer form with respect to agents, persons involved, maintenance of the form, etc.⁹⁶ Although the form is available to federal and state law enforcement authorities, it is not available to the public.⁹⁷ The regulations further address the responsibilities of the facility with respect to researchers and laboratories and shipping facilities.

These regulations carry criminal penalties. For example, an individual who knowingly makes a false statement on any of the forms required for registration or transfer is subject to a fine or imprisonment of up to five years.⁹⁸ Knowing violation of other provisions carries a fine of \$250,000 and imprisonment of up to five years.⁹⁹

F. *Presidential Decision Directive 39: U.S. Policy on Counter-Terrorism, June 1995*¹⁰⁰

Following the Oklahoma City bombing and the Sarin gas attack in Japan, President Clinton signed PDD-39, which purports to address

candid #1, Rift Valley fever virus strain MP-12, Venezuelan Equine encephalitis virus strain TC-83, Yellow fever virus strain 17-D) are exempt.) Bacteria: 1. *Bacillus anthracis*; 2. *Brucella abortus*, *B. melitensis*, *B. suis*; 3. *Burkholderia* (*Pseudomonas*) *mallei*; 4. *Burkholderia* (*Pseudomonas*) *pseudomallei*; 5. *Clostridium botulinum*; 6. *Francisella tularensis*; 7. *Yersinia pestis*. (Exemptions: vaccine strains as described in Title 9 CFR, 78.1 are exempt.) Rickettsiae: 1. *Coxiella burnetii*; 2. *Rickettsia prowazekii*; 3. *Rickettsia rickettsii*; Fungi: 1. *Coccidioides immitis*. Toxins: 1. Abrin; 2. Aflatoxins; 3. Botulinum toxins; 4. *Clostridium perfringens* epsilon toxin; 5. Conotoxins; 6. Diacetoxyscirpenol; 7. Ricin; 8. Saxitoxin; 9. Shigatoxin; 10. Staphylococcal enterotoxins; 11. Tetrodotoxin; 12. T-2 toxin.)

93. See 42 C.F.R. § 72.6 (2002).

94. *Id.*

95. *Id.*

96. *Id.*

97. *Id.*

98. 42 C.F.R. § 72.7 (2002).

99. *Id.*

100. Presidential Decision Directive 39, at <http://www.fas.org/irp/offdocs/pdd39.htm>. Portions of PDD-39 are still classified. This discussion is based upon un-

how the United States should deal with the prospect of terroristic use of weapons of mass destruction (WMD). Essentially, the PDD-39 bifurcates the response into two discrete categories: “Crisis Response” and “Consequence Management.”

“Crisis Response” addresses the governmental reaction when terrorists have been discovered before an actual release. Essentially, the Department of State, through its Office of Counter-Terrorism, is responsible for any incidents overseas, whereas the domestic crisis response team is the responsibility of the FBI. It establishes a chain of command and implicitly acknowledges the state and local role.

“Consequence Management” describes the ways and means to alleviate the short- and long-term physical, socioeconomic and psychological effects of a WMD attack, for which the Federal Emergency Management Agency (FEMA) has the primary national responsibility. Accordingly, FEMA establishes the division of responsibility by leaving the federal government to deal with terrorists¹⁰¹ and the states to deal with the consequences of terrorist activity.¹⁰²

At the request of Congress, the General Accounting Office (GAO) prepared a report in December 1997 entitled *Combating Terrorism—Spending on Government Programs Requires Better Management and Coordination*,¹⁰³ which addressed PDD-39. Essentially, the GAO stated that: (1) Government priorities for combating terrorism have not been established; (2) funding requirements have not been validated on analytically sound assessments of threat and risks; and (3) there is no reasonable assurance that the nation has a coordinated and focused approach to implement national policy and strategy, or that the priority requirements are being met. Indeed, the report implies that terrorism-related activities and capabilities are duplicative or redundant and funding misallocations have occurred. The report identifies conflicts of law including disputes between agencies regarding funding. PDD-39 requires that agencies provide support for antiterrorism-related activities

classified versions of the document released by the White House, articles cited in this outline, a FEMA Federal Response Plan dated February 7, 1997, and conversations with officials familiar with it. The Minnesota Attorney General’s Office has the unclassified portions of PDD-39.

101. See Federal Emergency Management Agency, *United States Government Interagency Domestic Terrorism Concept of Operations Plan*, available at <http://www.fas.org/irp/threat/conplan.html> (stating that “The laws of the United States assign primary authority to the Federal government to prevent and respond to acts of terrorism or potential acts of terrorism.”).

102. See *id.* (stating that “The laws of the United States assign primary authority to the State and local governments to respond to the consequences of terrorism; the Federal government provides assistance, as required.”).

103. Available at <http://www.gao.gov/archive/1998/ns98039.pdf>.

at their own expense. The Economy Act of 1932¹⁰⁴ requires the receiving agency to reimburse for goods and services provided by another agency. This has caused disagreements. For example, the FBI has cited PDD-39 to seek Department of Defense (DOD) support for counter-terrorism activities on a nonreimbursable basis, while DOD has cited the Economy Act as requiring FBI reimbursement.

Chris Seiple, a member of the Strategic Initiative Groups at the U.S. Marine Corps Headquarters at the Pentagon, has written a perceptive review critical of PDD-39.¹⁰⁵ He faults the directive for creating an artificial distinction between crisis management and consequence management. Bluntly stated, in spite of PDD-39's neat lines, which separate jurisdiction and command in crisis and consequence management, there is, in reality, no bright line as to when the crisis concludes and consequence management commences. Indeed, "in a WMD situation, domestic or international, Consequence Management is the crisis."¹⁰⁶ Others have faulted PDD-39 for, among other matters:

- failing to provide a blueprint for how government should improve its capabilities for responding to a WMD crisis;
- failing to assign responsibilities or incentives to any agency to enhance epidemiology surveillance or training or equipping state and local responders;
- placing too much responsibility on the FBI, which has little experience in preparing for, or conducting, large-scale multi-agency operations required to respond to a domestic incident;
- failing to recognize FEMA alone lacks the money and the political power to insure other agencies improve their capability;
- failing to delineate clearly and consistently the responsibility of the different levels of government—federal, state, and local.¹⁰⁷

G. *Presidential Decision Directive 62: Combating Terrorism, May 1998*¹⁰⁸

This directive highlights the growing threat of unconventional attacks and purports to detail a new and more systematic approach to fighting terrorism by bringing a program management approach to United States counter-terrorism efforts. In order to strengthen the interagency coor-

104. 47 Stat. 382 (1932) (codified as amended at 31 U.S.C. 1535 (2002)).

105. Chris Seiple, *Consequence Management: Domestic Response to Weapons of Mass Destruction*, PARAMETERS, Autumn 1997, available at <http://carlisle-www.army.mil/usawc/parameters/97autumn/seiple.htm>.

106. *Id.*

107. See RICHARD A. FALKENRATH ET AL., AMERICA'S ACHILLES' HEEL: NUCLEAR, BIOLOGICAL, AND CHEMICAL TERRORISM AND COVERT ATTACK 269-76 (1998).

108. Available at <http://www.fas.org/irp/offdocs/pdd-62.htm>.

dination process, President Clinton created the Office of National Coordinator for Security, Infrastructure Protection, and Counter-terrorism. PDD-62 reemphasized the role of consequence management as a means of effective counter-terrorism strategy and addressed specifically the bioterrorism threat, including calling for the stockpiling of antibiotics and vaccines.

H. *Presidential Decision Directive 63: Critical Infrastructure Protection, May 1998*¹⁰⁹

This directive calls for a national effort to assure the security of the increasingly vulnerable and interconnected infrastructures of the United States. It sets up a new structure to address the challenge by reaffirming or establishing:

- A national coordinator, whose scope will include not only critical infrastructure, but also foreign terrorism and threats of domestic mass destruction, including biological weapons, as attacks on the U.S. may not come labeled in neat jurisdictional boxes.
- A National Infrastructure Protection Center (NIPC)¹¹⁰ within the FBI to fuse representatives of the FBI, DOD, the intelligence community, the private sector, and others in an attempt to share information. The NIPC will also provide the principal means of facilitating and coordinating the federal governments' response to an incident and monitoring reconstruction efforts.
- A National Infrastructure Assurance Council drawn from private sector leaders and state and local officials to provide guidance to the formulation of a national plan.
- The Critical Infrastructure Assurance Office to provide support to the national coordinator's work with government agencies and the private sector in developing a national plan.
- In addition, The private sector, cooperating with U.S. agencies, is encouraged to establish an Information Sharing and Analysis Center (ISAC).

PDD-63 directs each lead agency to appoint a senior official to sit on interagency councils.

PDD-63 mandates that a national infrastructure assurance plan be implemented to accomplish beginning capacity by the year 2000 and have maintainable ability to protect the nation's infrastructure from significant degradation by May 2003.

109. Available at <http://www.fas.org/irp/offdocs/pdd/pdd-63.htm>.

110. For more information, see the National Infrastructure Protection Center website at <http://www.nipc.gov>.

I. *Nunn-Luger-Domenici Amendment: Defense Against Weapons of Mass Destruction Act of 1996*¹¹¹

Senator Sam Nunn, a co-author of the Defense Against Weapons of Mass Destruction Act, stated his fear in 1996 that the United States, in responding to chemical or biological terrorism, displayed “a remarkable lack of domestic preparedness.” Indeed, he warned that “an attack of this kind is not a question of ‘if’ but a question of ‘where.’”¹¹² Thus he and two co-authors promoted an amendment to the Defense Authorization Act. This amendment has three parts. The first sets forth measures to enhance our preparedness to respond to a domestic WMD attack. The responsibility for the nation’s domestic preparedness is assigned to the Department of Defense (DOD). The responsibility for training first responders was given to the U.S. Army’s Chemical and Biological Defense Command. The President is directed to take immediate action “to enhance the capacity of the federal government to prevent and respond to terroristic incidents involving weapons of mass destruction,” and “to provide and enhance support to improve the capabilities of state and local emergency response agencies to prevent and respond to such incidents on both the national and state level.” To meet these objectives, Congress appropriated approximately \$50 million in funding to the DOD in fiscal year 1997.

The second major thrust of the Nunn-Luger-Domenici Amendment dealt with reducing the risk of fission material theft and diversion in the former Soviet Union. Finally, because Congress perceived the Clinton Administration’s response to counter-terrorism and nonproliferation to be inadequate, Congress mandated the establishment of a “National Coordinator for Nonproliferation Matters” as a position between the National Security Advisor and the Senior Directors of the National Security Council Staff.

J. *The Robert T. Stafford Disaster Relief And Emergency Assistance Act*¹¹³

The Stafford Act provides a mechanism to legally employ active duty Army units in times of great national disaster. It is applicable only

111. Defense Against Weapons of Mass Destruction Act of 1996, Pub. L. No. 104-201, 110 Stat. 2715 (1996) (codified as amended in scattered sections of 50 U.S.C.), available at <http://www.fas.org/spp/starwars/congress/1996/pl104-201-xiv.htm>.

112. Barbara Starr, *Chemical & Biological Terrorism Briefing*, JANES DEFENSE WKLY. (Aug. 14, 1996).

113. The Robert T. Stafford Disaster Relief And Emergency Assistance Act, Pub. L. No. 93-288, 88 Stat. 143 (1974) (codified as amended in scattered sections of 42 U.S.C.).

within the United States and its territories and is typically triggered when a governor of a state requests a Presidential Declaration of a state of emergency following a national disaster.¹¹⁴ An “emergency” is:

any occasion or instance for which, in the determination of the President federal assistance is needed to supplement state and local efforts in capabilities to save lives and to protect property and public health and safety or to lessen or avert the threat of a catastrophe in any part of the United States.¹¹⁵

A governor may request a Presidential Declaration of a state of emergency if, after taking appropriate action under state law and executing the state’s emergency plan, the governor finds that the situation is of such severity and magnitude that an effective response is beyond the state’s capacity.¹¹⁶ The President may act without a governor’s request:

when he determines that an emergency exists for which the primary responsibility for response rests with the United States because the emergency involves a subject area for which, under the Constitution or laws of the United States, the United States exercises exclusive or preeminent responsibility and authority. In determining whether or not such an emergency exists, the President shall consult the governor of any affected state, if practicable.¹¹⁷

While this rather vague statute has not been interpreted, its use in a bioterrorism attack would not justify personal control mechanisms such as quarantine. The President’s authority is limited to those activities specified in §§ 5192¹¹⁸ and 5193¹¹⁹ of Title 42, which address federal emergency assistance in providing community services, technical and advisory assistance, issuing warnings, and other similar issues.

K. *Public Health Security and Bioterrorism Preparedness and Response Act of 2002*

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 was signed by the President on June 12, 2002. It is a complex Act that creates new federal programs, adds targeted bioterrorism funding to existing programs, modifies many of the existing

114. See 42 U.S.C. § 5122(1)-(4) (2002).

115. 42 U.S.C. § 5122(1) (2002).

116. 42 U.S.C. § 5191(a) (2002).

117. 42 U.S.C. § 5191(b) (2002).

118. See *id.* (stating that “Whenever the federal assistance provided under subsection (a) of this section with respect to an emergency is inadequate, the President may also provide assistance with respect to efforts to save lives, protect property and public health and safety, or lessen and avert the threat of a catastrophe.”).

119. See 42 U.S.C. § 5193 (2002) (limiting the amount of federal funds for a single emergency to \$5 million or less unless the President determines that there is a continuing or immediate risk to public health, among other conditions).

laws that impinge on bioterrorism, and also contains many special interest provisions. This is a brief review of the major provisions of the legislation. Since many parts of the law are to be fleshed out by administrative agencies through regulations and grant programs, it is important for those affected by the legislation to track the forthcoming information in the *Federal Register*.

- *National Preparedness Plan*.¹²⁰ This section expands on the existing disaster planning responsibilities of the Secretary of Health and Human Services (the Secretary) by requiring that the Secretary report to Congress on the abilities of state and federal agencies to respond to bioterrorism and other public health emergencies and to develop a plan to coordinate and improve this response. The Secretary has one year to submit this report to Congress.
- *Coordination of Preparedness for and Response to Bioterrorism and Other Public Health Emergencies*.¹²¹ The key provision of this section is the creation of the National Disaster Medical System. This system will coordinate the efforts of the Department of Health and Human Services, the Federal Emergency Management Agency, the Department of Defense, and the Department of Veterans Affairs, and relevant state agencies. The role of the National Disaster Medical System is to:
 - (i) provide health services, health-related social services, other appropriate human services, and appropriate auxiliary services to respond to the needs of victims of a public health emergency (whether or not determined to be a public health emergency under section 319); or
 - (ii) be present at locations, and for limited periods of time, specified by the Secretary on the basis that the Secretary has determined that a location is at risk of a public health emergency during the time specified.¹²²

The Secretary may enter into agreements with state agencies and other entities to carry out the mission of the National Disaster Medical System. Persons appointed to perform functions of the system are given the same legal immunity as employees of the Public Health Service, irrespective of whether they are paid by the federal government.¹²³ This is a significant provision and all agencies that participate in the federal bioterrorism effort should obtain formal agreements from the Secretary that extend this protection to their personnel.

120. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pub. L. No. 107-188, § 2801, 116 Stat. 594 (2002).

121. *Id.* § 2811.

122. *Id.* § 2811(b)(3)(i-ii)

123. *Id.* § 2811(d)(2).

- *Revitalizing the Centers for Disease Control and Prevention.*¹²⁴ This provision gives the Centers for Disease Control and Prevention \$300 million in fiscal years 2002 and 2003, plus unspecified future funds, with general directions to do more to prepare for bioterrorism and public health emergencies. The money may be spent on personnel, buildings, and training.
- *Advisory Committees and Communications; Study Regarding Communications Abilities of Public Health Agencies.*¹²⁵ This section establishes various study committees, including one on children and bioterrorism, to study public health agencies and to help disseminate public health information.
- *Training Grants.*¹²⁶ Various sections of the Act direct the secretary to provide training money for health care personnel in areas related to bioterrorism and public health emergencies, with specific reference to training related to children's issues.
- *Emergency System for Advance Registration of Health Professions Volunteers.*¹²⁷ This provision directs the Secretary to develop a system of identifying health care professionals who are willing to volunteer in an emergency. These volunteers will be registered and their credentials will be verified in advance and put in a database so that they can be called up on short notice. It is possible, although not explicitly addressed in the law, for the Secretary to combine this registration with the liability provisions of the statute, thus giving all registered volunteers governmental immunity for their actions.
- *Working Group on Bioterrorism and Other Public Health Emergencies.*¹²⁸ This section directs the Secretary to establish a working group on the prevention, preparedness, and response to bioterrorism and other public health emergencies. In doing so, the Secretary will work in coordination with the Secretary of Agriculture, the Attorney General, the Director of Central Intelligence, the Secretary of Defense, the Secretary of Energy, the Administrator of the Environmental Protection Agency, the Director of the Federal Emergency Management Agency, the Secretary of Labor, the Secretary of Veterans Affairs, and other similar federal officials as determined appropriate.

124. *Id.* § 319D

125. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pub. L. No. 107-188, § 104, 116 Stat. 594 (2002).

126. *Id.* §§ 105, 106.

127. *Id.* § 107.

128. *Id.* § 108.

- *Antimicrobial Resistance*.¹²⁹ This section makes \$25 million available in each of fiscal years 2002 and 2003, plus unspecified monies in 2004 and 2005, to study mechanisms by which antimicrobial resistance is developed.
- *Strategic National Stockpile*.¹³⁰ The Secretary, in coordination with the Secretary of Veterans Affairs, is directed to maintain a stockpile of drugs, vaccines, medical devices, and other supplies in such numbers, types, and amounts as determined by the Secretary to be appropriate and practicable. This section also directs the Secretary to contract for smallpox vaccine production. \$640 million is allocated for the stockpile in 2002 and \$509 million is allocated for smallpox vaccine production, with additional unspecified sums in future years.
- *Countermeasures and Defenses*.¹³¹ The Secretary is directed to fund and fast track the development of countermeasures and defenses against bioterrorist agents.
- *Potassium Iodide*.¹³² Potassium iodide has a protective effect on the thyroid in persons exposed to radioactive emissions from nuclear power plants. There has been discussions for decades about whether it is cost-effective to provide potassium iodide to persons living near nuclear power plants, perhaps by having the electric or gas utility companies attach supplies to every electric or gas meter. This section directs the President to make available to state and local governments potassium iodide tablets for stockpiling and for distribution as appropriate to public facilities, such as schools and hospitals, in quantities sufficient to provide adequate protection for the population within twenty miles of a nuclear power plant. States and localities are also to plan how to stockpile and distribute the potassium iodide, unless they certify that the federal government has taken care of it. The President is to ask the National Academy of Sciences to study the problem and advise on the program.
- *Grants to Improve State, Local, and Hospital Preparedness for Response to Bioterrorism and Other Public Health Emergencies*.¹³³ This section provides \$1.6 billion for fiscal year 2003 to improve the ability of state and local governments and hospitals to respond to bioterrorism.

129. *Id.* § 109.

130. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pub. L. No. 107-188, § 121, 116 Stat. 594 (2002).

131. *Id.* §§ 122-125.

132. *Id.* § 127.

133. *Id.* §§ 319C-1, 319C-2.

- *Streamlining and Clarifying Communicable Disease Quarantine Provisions.*¹³⁴ This section allows the President, on the recommendation of the Secretary and in consultation with the surgeon general, to issue regulations on quarantine. This does away with the previous requirement that such recommendations come from the National Advisory Health Council. This section also amends the federal quarantine and inspection laws to make it clear that persons can be quarantined when they are infectious and when they are in a pre-infectious stage of a disease that will become infectious later.
- *Emergency Waiver of Medicare, Medicaid, and Schip Requirements.*¹³⁵ This is an important section that gives the Secretary considerable flexibility in waiving eligibility and other requirements for federal health care programs when this is necessary to take care of persons in an emergency.
- *Provision For Expiration of Public Health Emergencies.*¹³⁶ The Secretary has forty-eight hours after a declaration of a public health emergency to report the declaration and supporting information to Congress. A public health emergency expires in ninety days, unless cancelled earlier by the Secretary. The Secretary may renew a declaration of a public health emergency on the same basis as an initial declaration.
- *Regulation of Certain Biological Agents and Toxins.*¹³⁷ This section increases the regulation of biological agents and toxins that could be used in bioterrorism attacks. Users of these biological agents and toxins must be registered. Registered users may not have a criminal record and are subject to a background check by the Attorney General for other evidence of terrorist activity. The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 provides an *ex parte* review process for persons whose registration is denied or limited. Persons must report any theft or loss of regulated agents. Agents handled ancillary to clinical testing, such as testing mail for anthrax spores are exempt from these provisions. Agencies holding this information are not to disclose it or otherwise make it publicly available to persons who might use it improperly.
- *Regulation of Certain Biological Agents and Toxins—Agricultural Bioterrorism Protection Act of 2002.*¹³⁸ This section sets up a par-

134. *Id.* § 142.

135. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pub. L. No. 107-188, § 143, 116 Stat. 594 (2002).

136. *Id.* § 144.

137. *Id.* § 201.

138. *Id.* § 212.

allel biological agents and toxins registration and regulation program for the Agriculture Department.

- *Criminal Penalties*.¹³⁹ This section criminalizes the transfer of regulated agents to unregistered persons and the possession of regulated agents by unregistered persons.
- *Protecting Safety and Security of Food and Drug Supply*. This is a significant section of the Act devoted to assuring the safety of the food supply. Most of the provisions are concerned with inspecting and tracking foreign food shipments. There are record keeping requirements, prior notice of import requirements, and several grant programs to support state inspection of foods.
- *Drinking Water Security and Safety*. This section mandates studies on the vulnerabilities of drinking water systems to terrorism and how to prevent such attacks.
- *Unrelated Provisions*. There are several provisions tacked onto this bill that have no relationship to bioterrorism. There is a Public Access Defibrillation Program¹⁴⁰ that provides \$25 million to improve access to defibrillators in public places. Subtitle A increases and further regulates the user fees paid to the FDA by drug companies seeking marketing approval for new drugs. Section 531 requires televisions sold after a certain date to have digital tuners to facilitate the transition to digital television.

L. *General Presidential Emergency Authority*

The Constitution contains no explicit provision giving the President authority to declare a national emergency or to legislate independently of Congress during an emergency. Nonetheless, Presidents have claimed executive power under Article II and declared national emergencies on the basis of real or imagined authority delegated by statutes.¹⁴¹ These include 10 U.S.C. §§ 331–333, which give the President authority to use emergency powers to quell an insurrection. Typically, the President must first receive a request from a governor, issue a proclamation asking for dispersal providing the malefactors an opportunity to quit, and if not done, the President may use federal troops to control the civil disorder.¹⁴² The National Emergency Act of 1976¹⁴³ provides

139. *Id.* § 231.

140. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pub. L. No. 107–188, § 312, 116 Stat. 594 (2002).

141. See Gehard Casper, *The Constitutional Organization of Government*, 26 WM. & MARY L. REV. 177, 188–89 (1985).

142. See 10 U.S.C. §§ 331–332, 334 (2002).

143. Pub. L. No. 94–412, § 201, 90 Stat. 1255 (1976) (codified as amended at 50 U.S.C. §§ 1601–1651(2002)).

the procedures for the President to declare a national emergency, the general conditions on the President's authority during such an emergency, and how such an emergency is terminated.¹⁴⁴ Executive Order 12656—*Assignment of Emergency Preparedness Responsibilities*—is an extensive protocol for exercising these emergency powers.¹⁴⁵

M. *Posse Comitatus Act*¹⁴⁶

In normal times, the President acts through the agencies of the federal government. In emergencies, when there is a need for manpower and/or force, the President acts through the military, either by using the National Guard or the Armed Forces. The founders, concerned that a president might use troops to subvert democracy, put certain constitutional limits on standing armies. In 1866, the Supreme Court ruled that the national government may not use the military to enforce civil law.¹⁴⁷ The court acknowledged, however, that the military would have to provide for law and order in the event civilian authority collapsed.

During Reconstruction, however, the U.S. Army assisted in law enforcement in the defeated southern states. In response to complaints from southern politicians and to incorporate long-standing fears of military use in civilian matters, Congress passed the Posse Comitatus Act in 1878.¹⁴⁸ This law prohibits government authorities from using the Army or Air Force “as a posse comitatus or otherwise to execute the laws.”¹⁴⁹ Under the command of a governor, the Posse Comitatus Act is not applied to the National Guard when acting in its capacity as the state militia.¹⁵⁰

The most significant recent challenge to military involvement with respect to enforcing civil law arose out of the American Indian uprising in Wounded Knee, South Dakota, in 1973, when 100 American Indian Movement (AIM) members occupied the town for over two months. Troops were called in to “assist” the FBI and other law enforcement agencies. Thereafter, several courts that interpreted the Posse Comitatus Act rendered inconsistent decisions, which provide little guidance as to the legitimate role of troops assisting civilian authorities.

For example, in *United States v. Red Feather*,¹⁵¹ the court held that

144. See 50 U.S.C. §§ 1601, 1621 (2002).

145. See Exec. Order No. 12656, 53 Fed. Reg. 47,491 (Nov. 18, 1988), available at <http://www.nara.gov/fedreg/codific/eos/e12656.html>.

146. 20 Stat. 152 (1878) (codified as amended at 18 U.S.C. § 1385 (2002)).

147. *Ex parte Miligan*, 71 U.S. 2 (1866).

148. Furman, *Restrictions Upon Use of Army Imposed by the Posse Comitatus Act*, 7 MIL. L. REV. 85 (1960).

149. 18 U.S.C. § 1385 (2002).

150. *U.S. v. Benish*, 5 F.3d 20 (3d Cir. 1993).

151. 392 F. Supp. 916 (D.S.D. 1975).

so long as the military involvement was passive or indirect, such engagement was legal, because the law only prohibited troops from actively executing the law.¹⁵² On the other hand, in *United States v. Jaramillo*,¹⁵³ the court ruled in the defendant's favor since the military crossed the line by advising the FBI and repairing loaned military equipment.¹⁵⁴ Similarly, the court found on behalf of defendant Russell Means in *United States v Banks*,¹⁵⁵ because an Army officer's advice and direction to civilian authority was not seen as merely passive.¹⁵⁶ A fourth case arising from the same incidents, *United States v. McArthur*,¹⁵⁷ criticized the other decisions for establishing vague criteria and said the standard is whether civilian authorities used the military in such a manner that was regulatory, proscriptive, or compulsory.¹⁵⁸

In *Bissonette v. Haig*,¹⁵⁹ another case arising out of the Wounded Knee controversy, the Eighth Circuit Court of Appeals affirmed a lower court decision concerning a Fourth Amendment violation under the Posse Comitatus Act.¹⁶⁰ The appeals court stated that:

[t]he use of military forces to seize civilians can expose civilian government to the threat of military rule and the suspension of constitutional liberties. On a lesser scale, military enforcement of the civil law leaves our protection of vital Fourth and Fifth Amendment rights in the hands of persons who are not trained to uphold these rights. It may also chill the exercise of fundamental rights . . . and create the atmosphere of fear and hostility which exists in territories occupied by enemy forces.¹⁶¹

In 1981, Congress amended the 1878 Posse Comitatus Act to allow limited cooperation with civilian law enforcement through surveillance and leasing equipment.¹⁶² Nonetheless, 10 U.S.C. § 375 specifically precluded troops from becoming directly involved in "search and seizure, and arrest, or other similar activities."¹⁶³ Despite this prohibition, Congress has directed the Department of Defense to become the lead agency for detection and monitoring of air and sea drug trafficking across the borders and appropriated \$300 for the purposes of narcotics interdiction. The courts have been divided on whether this violates with

152. *See id.* at 922–23.

153. 380 F. Supp. 1375 (D. Neb. 1974).

154. *Id.* at 1380–81.

155. 383 F. Supp. 368 (D. S.D. 1974), *appeal dismissed*, 513 F.2d 1329 (8th Cir. 1975).

156. *See id.* at 375–76.

157. 419 F. Supp. 186 (D.N.D. 1975).

158. *Id.* at 194.

159. 776 F.2d 1384 (8th Cir. 1985), *aff'd on reh'g*, 800 F.2d 812 (8th Cir. 1986), *aff'd*, 485 U.S. 264 (1988).

160. *Id.* at 1392.

161. *Id.* at 1387.

162. *See* 10 U.S.C. § 375 (2002).

163. *See id.*

the Posse Comitatus Act, with some overturning narcotics trafficking convictions based on evidence obtained by the military¹⁶⁴ and others, accepting such evidence based on the theory that the involvement of the military was insufficient to trigger the prohibitions of the Act.¹⁶⁵

Attorney General Janet Reno, in her testimony on chemical and biological terrorism before the U.S. Senate Select Committee on Intelligence, asserted her belief that the Posse Comitatus Act would restrict the military from executing laws in a bioterrorism situation.¹⁶⁶

The Posse Comitatus Act does not completely preclude domestic civilian use of the armed forces. Section 215.4 of 32 C.F.R. describes six circumstances in which the military may assist civilian authorities:

- (a) Under the Constitution and laws of the United States, the protection of life and property and the maintenance of public order are primarily the responsibilities of State and local governments, which have the necessary authority to enforce the laws. The Federal Government may assume this responsibility and this authority only in certain limited instances.
- (b) Aside from the constitutional limitations of the power of the Federal Government at the local level, there are additional legal limits upon the use of military forces within the United States. The most important of these from a civil disturbance standpoint is the Posse Comitatus Act (18 U.S.C. 1385), which prohibits the use of any part of the Army or the Air Force to execute or enforce the laws, except as authorized by the Constitution or Act of Congress.
- (c) The Constitution and Acts of Congress establish six exceptions, generally applicable within the entire territory of the United States, to which the Posse Comitatus Act prohibition does not apply.
 - (1) The constitutional exceptions are two in number and are based upon the inherent legal right of the U.S. Government—a sovereign national entity under the Federal Constitution—to insure the preservation of public order and the carrying out of governmental operations within its territorial limits, by force if necessary.
 - (i) The emergency authority. Authorizes prompt and vigorous Federal action, including use of military forces, to prevent loss of life or wanton destruction of property and to restore governmental functioning and public order when sudden and unexpected civil disturbances, disasters, or calamities seriously endanger life and property and disrupt normal governmental functions to such an extent that duly constituted local authorities are unable to control the situations.
 - (ii) Protection of Federal property and functions. Authorizes Federal action,

164. *State v. Pattioay*, 896 P.2d 911 (1995).

165. *United States v. Hartley*, 796 F.2d 112 (5th Cir 1986). See generally Brian L. Porto, Annotation, *Construction And Application of Posse Comitatus Act (18 U.S.C.A. § 1385), and Similar Predecessor Provisions, Restricting Use of United States Army and Air Force To Execute Laws*, 141 A.L.R. Fed. 271 (1997).

166. *The Threat of Chemical and Biological Weapons: Hearing Before the Subcommittee on Technology, Terrorism, and Government Information, Committee on the Judiciary, and Select Committee on Intelligence*, April 22, 1998 (statement of Attorney General Janet Reno). A good analysis of the Posse Comitatus Act is presented in Roger Hohsbeen, *Fourth Amendment and Posse Comitatus Act Restructuring on Military Involvement in Civil Law Enforcement*, 54 GEO. WASH. L. REV. 404 (1986).

including the use of military forces, to protect Federal property and Federal governmental functions when the need for protection exists and duly constituted local authorities are unable or decline to provide adequate protection.

- (2) There are four exceptions to the Posse Comitatus Act based on Acts of Congress.
- (i) In the cases of each of the first three of those described, paragraphs (c)(2)(i)(a), (b), and (c) of this section, personal Presidential action, including the issuance of a proclamation calling upon insurgents to disperse and retire peaceably within a limited time, is a prerequisite.
 - (a) 10 U.S.C. 331. Authorizes use of the militia and Armed Forces when a State is unable to control domestic violence, and a request for Federal assistance has been made by the State legislature or governor to the President. Implements Article IV, section 4, of the Constitution.
 - (b) 10 U.S.C. 332. Authorizes use of the militia and Armed Forces to enforce Federal law when unlawful obstructions or rebellion against the authority of the United States renders ordinary enforcement means unworkable. Implements Article II, section 3, of the Constitution.
 - (c) 10 U.S.C. 333. Authorizes use of the militia and Armed Forces when domestic violence or conspiracy hinders execution of State or Federal law, and a State cannot or will not protect the constitutional rights of the citizens. Implements Article II, section 3, and the 14th Amendment of the Constitution.

Conflicts may arise when military troops are used in public health emergencies. Military troops are trained to engage in military conflicts. They are not trained in either police functions or emergency management. Even in combat zones, they are the first to admit that they are ill prepared to replace local police once the combat has ended. Thomas R. Lujan, a military lawyer, described the difficulties encountered between civilian and military authorities when President Bush, in response to a request by the Governor of California, used U.S. Army forces to quiet the riots following the Rodney King verdict in 1992.¹⁶⁷ Thirty-five hundred troops and Marines were conveyed to restore order. At the very first meeting between the commander of the Joint Task Force and the Los Angeles police chief and the county sheriff, it became clear that no one had a clear perception of the proper role of military forces in an emergency. On a tactical level, the chief wanted to partition the city into military districts. The sheriff, in a "rent a soldier fashion," wanted to have various military forces allocated to police units. The Joint Force commander, believing he was constrained by the provisions of the Posse Comitatus Act did not believe he could legally participate in law enforcement activities. These conflicts led the officer to conclude:

167. Thomas R. Lujan, *Legal Aspects of Domestic Employment of the Army*, PARAMETERS, Autumn 1997, at 82, available at <http://carlisle-www.army.mil/usawc/Parameters/97autumn/lujan.htm>.

The direct lesson for civilian leaders is startling in its clarity. Any military forces authorized by the President to restore domestic tranquility in terrorist incidents must be prepared to operate under military ROE [rules of engagement]. Our specially trained and equipped forces are not law enforcement elements, whose activities should be subjected to the same legal boundaries applicable to the FBI. Instead, they possess specialized military operational standards. When civilian leaders decide to employ military forces in response to a domestic terrorist threat, they will have to recognize that military units may be required to use traditional military rules of engagement, defining combatants and using deadly force without the analytical assessment of threat. Before decision makers bring our military forces to bear, the situation must be so potentially harmful (seized nuclear weapon, biological or chemical weapon of mass destruction) that the United States must react to it as if it is an act of war—not just a crime. In domestic terrorism requiring a military response, the armed forces are not “adjunct police,” they are military forces operating under military rules of engagement. Their actions are, of course, subject to applicable law of war proscriptions. The ROE used must be approved and supported at the highest level of the Executive Branch.¹⁶⁸

IV. Public Health Law Reform

The Model State Emergency Health Powers Act is premised on the belief that existing state public health laws are inadequate to meet the challenge of bioterrorism. This premise is dangerously wrong because there are no occasions when a judge has stopped public health authorities from acting in a crisis situation. If anything, the judiciary is prone to overreaction as any other group of laypersons. When facing a crisis, public health fails through inadequate action, rather than being legally unable to act. This failure to act arises in two ways. The first is paralysis by the health officer. The health officer may be worried about personal or departmental legal liability, about the political consequences against him- or herself or against the department, or, most simply, the health officer may not know what to do, and is thus afraid to act. The second basis for a failure to act is extrinsic. The health officer may be unable to get the necessary support from other agencies, especially the police. This can arise from inadequate laws, or, more commonly, from lack of a political commitment by the city council or county commission to force the police to enforce public health orders. It can also arise because the political body does not have legal counsel that understands both the scope of public health authority and the necessity for its exercise.

Consider the following hypothetical. The FBI has a tip that a Boeing 777, with 450 passengers on board, is the target of a bioterrorist attack. The allegation is that an infectious agent has been sprayed into the air

168. *Id.* at 82.

circulation system of the plane, which could infect many of the passengers. The identity of the agent is unknown, and smallpox cannot be ruled out. The plane is about to land in an airport in the Midwest, so the state epidemiologist and state police have been called. If the passengers have been exposed to an infectious agent, they will pose a serious health threat if they leave the plane for other flights or leave the airport for their destinations. After September 11, there are many more security personnel at the airport to respond to the alert, but there are no facilities to contain 450 people in the gate area, and no simple way of moving them through the terminal. The usual airport response to problems is to evacuate the terminal, but this would assure that everyone will be lost. Some passengers claim they are in robust health and assert they have business or personal commitments that they intend to keep, or connecting flights that they intend to make, unless the FBI can come up with more specific proof. Someone must decide immediately who shall restrain these passengers and determine how such physical restraint shall be accomplished. The airport police and National Guard may be willing to act, but where do they put people, and should they shoot the ones who will not cooperate? Does their legal authority extend to victims of an attack, or only to terrorists? Who has jurisdiction? Can the FBI give orders to the state police or the National Guard?

The September 11 shutdown of domestic aviation, an unprecedented event with a profound impact on millions of people, illustrates the extent of the existing powers to protect the public. There are probably no legal impediments to managing this planeload of potentially contagious passengers. However, exercising that authority demands that the parties involved know that they have the authority, that there be a plan for establishing a command and control hierarchy, which will be respected by all the parties, and that there are adequately trained personnel to carry out the indicated actions. Planning is a political issue that requires no new laws, but does demand that the governmental agencies and their elected officials accept that such plans are a high priority.¹⁶⁹ Assuring

169. There are more than 3,000 health jurisdictions at the state and local levels within the United States alone. See www.naccho.org. The number of federal agencies, bureaus, and other administrative arms that may be involved in containing a bioterroristic threat is unknown. Nonetheless, public health officials, lawyers, and federal and state military and emergency personnel should develop a protocol or blueprint to respond to the bioterrorist threat based upon sound legal principles to effectuate both public health flexibility and protect individual rights. Now, no such plan exists. In many health crises the lack of a preexisting plan renders the response inefficient and may create its own disaster. George A. Gelle, *Preparing For Emerging Infections*, 370 NATURE 409 (August 11, 1994).

adequate numbers of properly trained staff is a public health administrative function that demands significant economic support. The remainder of this article is a proposed course of action for states interested in addressing the legal aspects of public health practice.

A. *From Bioterrorism to Cold Soup*

It is impossible to build a sustainable and effective civilian response system to very low frequency events.¹⁷⁰ Such a system does not lend itself to the military model of “strike forces” and the projection of force. Public health is a local activity and managing a bioterrorist incident must be done within the constraints of the local community. While there is an important role for expert teams from the CDC and other federal agencies, the best parallel is with FEMA. FEMA comes in to help coordinate local disaster relief efforts, but the agency depends on local institutions for most front line work. This demands that local agencies, of which there are more than 3,000, must maintain a high state of readiness. Yet all of the agencies are underfunded and understaffed, with many of them consisting of no more than a handful of people. They are overwhelmed with their day-to-day responsibilities, and there is little prospect that state and local governments will fund them to have excess capacity and expert personnel waiting around for a bioterrorism incident.

Developing a bioterrorism plan that is compatible with public health realities depends on taking routine public health more seriously. The CDC estimates that more than 5,000 people die from food borne illness every year, and a much larger number become so ill that they require hospitalization.¹⁷¹ In total, public health related diseases take a signifi-

170. As President Eisenhower warned in a speech about the military-industrial complex, the dynamics are very different for a military system. There is so much money and so many people involved that the system is able to capture the political process and become self-perpetuating. The debates about military reorganization, closing bases whose function was to protect against Indian attacks, and whether bankrupt shipyards should be subsidized by turning cruise ships into troop transports are current examples of the problem.

171. Paul. S. Mead, et al., *Food-related Illness and Death in the United States*, 5 EMERGING INFECTIOUS DISEASES 607 (1999). There is also a significant problem with water sanitation. See Centers for Disease Control and Prevention, *Assessing the Public Health Threat Associated with Waterborne Cryptosporidiosis: Report of a Workshop*, 44 MORBIDITY & MORTALITY WKLY. REP. (Recommendations & Reports No. RR-6) (June 16, 1995); Centers for Disease Control and Prevention, *Outbreak of E. coli O157:H7 and Campylobacter—New York, 1999*, 48 MORBIDITY & MORTALITY WKLY. REP. 803 (Sept. 27, 1999); Centers for Disease Control and Prevention, *A Survey of the Quality of Water Drawn from Domestic Wells in Nine Midwest States*, at <http://www.cdc.gov/nceh/emergency/WellWater/default.htm> (last visited Mar. 18, 2002).

cant toll on society. A bioterrorism strategy should begin with increasing the public awareness of everyday public health risks and concerns, not with low probability events, some of which are so threatening as to induce paralysis rather than constructive action.¹⁷² Rather than having elaborate bioterrorism contingency plans on the shelf at the local health department, educate the public to demand effective public health every day, and thus rebuild the political support necessary for an effective public health infrastructure. It is better to have every diner worry when served lukewarm soup¹⁷³ than to worry about vague threats of bioterrorism: focus the public's fears on events that it can recognize and address within local political institutions.

Thus, in an application of the Broken Windows hypothesis¹⁷⁴ to public health, the best way to manage the risk of bioterrorism is to not expend precious resources and political credibility on low frequency events, such as bioterrorism, but to focus on day-to-day public health functions, i.e., channel the public and legislative fears about bioterrorism to fears about everyday public health. For example, one common strategy proposed to manage bioterrorism is to establish a sentinel notification system in which selected emergency rooms and others will notify the authorities of possible bioterrorism victims. As a matter of public health practice and law, this has a fatal flaw. Since there will be few to no bioterrorism events in any given community over any given time period, it will be impossible to evaluate the effectiveness of the system because there will be too few reports to ensure that the reporting system is working.¹⁷⁵ In contrast, ensuring that the existing laws on disease control reporting are enforced will improve routine public health, and because they include the unusual outbreaks that typify bioterrorism incidents, will ensure that bioterrorism-related events are also reported. The efficacy of such systems can be much better monitored

172. A major smallpox incident that occurred before the new smallpox vaccine is ready could be catastrophic and would defy rational management. See MICHAEL T. OSTERHOLM & JOHN SCHWARTZ, *LIVING TERRORS: WHAT AMERICA NEEDS TO KNOW TO SURVIVE THE COMING BIOTERRORIST CATASTROPHE* (2000).

173. Soup is an excellent media for bacterial growth. To be eaten safely, it must be stored and served cold or very hot. Being served lukewarm soup as anything more than a rare accident indicates the restaurant has no fear of being inspected or sanctioned for unsanitary practices.

174. James Q. Wilson & George L. Kelling, *Broken Windows: The Police and Neighborhood Safety*, *ATLANTIC MONTHLY*, Mar. 1982, at 29–38, available at <http://www.theatlantic.com/politics/crime/windows.htm>.

175. WILLIAM EDWARD DEMINGS, *OUT OF THE CRISIS—1900* (2000). This is a classic statistical quality control problem in which the wrong indicator is monitored, which leads to inadequate and inappropriate data.

because the incidence of reportable diseases is high enough and well enough understood to create useful reporting benchmarks.

B. Law Reform for an Integrated Public Health Response

As discussed earlier in this article, there are no constitutional barriers to public health actions necessary to protect the public health in emergencies, nor have the courts limited the action of public health authorities in emergencies. The bigger problem with public health law is the support of day-to-day public health activities. If routine public health activities cannot be carried out effectively, then it is unreasonable to expect that the same authorities can detect bioterrorism related incidents and respond effectively to them. The proposed Model State Emergency Health Powers Act is an attempt to impose a legal regime to deal with large-scale emergencies, while ignoring the problems of routine public health.

C. The Model State Emergency Health Powers Act

This is a proposed model law, primarily written by academics at the Center for Law and the Public's Health, a federally funded project at Georgetown and Johns Hopkins Universities. It was done as a response to concerns about bioterrorism raised by the events of September 11. The Act is based on the assumption that existing state laws are wholly inadequate to confront a bioterrorism event and should be superseded by a comprehensive act, which will override any conflicting state laws. The Act is made up of a combination of newly drafted statutory provisions and parts of existing laws from different states. It attempts to deal with bioterrorism in isolation from other public health issues through concentrating power in the governor, and, secondarily, state health officials. It spans approximately forty pages and attempts to micro-manage the state's response by very detailed statutory provisions rather than the traditional use of a general statute that is then fleshed out with administrative regulations and guidelines.

Model acts can be useful vehicles for law reform when the acts are narrowly tailored to address specific problems that lend themselves to uniform and inflexible solutions. Even in such areas, however, there is a better mechanism for establishing standards. Public health law is a special practice area of administrative law—the law that governs the workings of state and federal agencies. The most important aspect of agency law is that agencies need flexibility to respond to changing threats and to craft new approaches when needed. This is very difficult

to do when agencies are governed by detailed, specific laws. The better course is to give the agencies broad powers and let the agencies use their expertise to fill in the details with administrative regulations and guidelines.

The use of administrative regulations and guidelines that are subject to public comment and review is more democratic and leads to better regulations because it can be better tailored to the specific needs of the state. Most importantly, administrative regulations can be modified as agencies gain more knowledge about public health threats. Detailed statutory schemes have two dangerous flaws. First, they are difficult to change, especially once the legislature loses its interest in bioterrorism. Second, it is impossible to predict the collateral effects of enacting a hastily drafted statute and all the expected amendments that will creep in during the legislative process. The likely result is a law that weakens public health practice and muddles state authority, but will be very difficult to change.

The most serious flaw in the Model State Emergency Health Powers Act is that it ignores the diversity of state government structures and state constitutional law. Public health law, more than any other area of law, is a creature of individual state history, state constitutional provisions, court precedent, and a state's physical and political environment. It is seldom codified in a single place, but usually is spread through many different parts of the state law and constitution. The Model State Emergency Health Powers Act cuts across all those interlocking laws and traditions and will have unpredictable consequences, including generating state and federal constitutional law problems, which may ultimately disrupt public health law practice. It is especially troubling that the Act attempts to specify where the ultimate state authority should lie for specific public safety concerns. This would only encourage conflicts in authority, rather than clarify it.¹⁷⁶

D. *What Should Be Done?*

Each state should develop a plan to coordinate emergency services personnel, the National Guard, and public health departments to re-

176. The Model Act also provides for elaborate due process requirements that will shift much public health decision making from public health professionals to judges. This is consistent with the thesis of LARRY O. GOSTIN, *PUBLIC HEALTH LAW: POWER, DUTY, RESTRAINT* (University of California Press, 2000), which was written by the primary drafter of this act. For a critique of this book and its approach, see Edward P. Richards, *Review of Public Health Law: Power, Duty, Restraint*, 287 *JAMA* 2 (Jan. 9, 2002) at 246–48, available at <http://jama.ama-assn.org/issues/v287n2/ffull/jbk0109-3.html>.

spond to major public health threats.¹⁷⁷ These may be due to bioterrorism or more mundane threats such as chlorination failure in a municipal water treatment system, or the arrival of an international traveler with a serious communicable disease.

Most states have already made significant progress with such plans as they apply to other emergencies and natural disasters. If there are things the state believes that it cannot do under its existing laws, it should seek advice from lawyers who are experts in dealing with agency laws, rather than constitutional law. The best source would be administrative law practitioners in top business law firms who could assess whether the state really needs to revise its laws and how it can do so in the least disruptive way. Whenever possible, this should be done through administrative regulation and executive orders, which provide more flexible responses than statutes.

Each state should start a long-range process to study the structure and staffing of public health departments to ensure adequate expertise and training of all key personnel and, as much as possible, to replace political appointees with skilled public health professionals, especially physicians who are certified public health specialists.

Each state should begin the process of studying its public health laws by working with public health practitioners to find areas where there is inadequate authority or conflicting mandates. These statutory problems should be remedied as simply as possible before states attempt wholesale revision of their public health codes. Since one of the major impediments to effective public health law practice is the absence of any public health law practice guides, the state should prepare a clear guide to public health law practice in the state. This will help the city, county, and state attorneys who assist in the front line work of public health enforcement.

Each state should also address the lack of professional opportunity in public health law practice. Finding expert legal support for public health poses a special problem because most lawyers who provide public health legal services work for city, county, or state legal departments, not the public health departments. These lawyers do not identify themselves as public health lawyers and do not belong to public health professional associations, such as the American Public Health Association (APHA). There are no professional organizations for public health lawyers and few opportunities for the private practice of public

177. For a good example of a state emergency preparedness law that could be used to manage bioterrorism, see NEB. REV. STAT. §§ 81–829.37 *et seq.*

health law. City, county, and state legal departments do not provide career paths for public health lawyers. Public health legal work often goes to the most junior lawyer in the office, who will then pass it to the next lawyer as soon as possible. The result is that there are very few career public health attorneys and few legal departments with any personnel skilled in public health law.

V. Conclusion

There is no need for any state to enact the Model State Emergency Health Powers Act. It is critical to avoid overreaction and the passing of ill-conceived legislation during a time of crisis. States should determine what changes in their own laws would allow them to carry out their state emergency management plans, and make only those changes. In most states, these changes will be minor or will not be necessary at all. States should evaluate their legal support for their public health agencies and develop public health law career tracks that will attract and retain the best possible legal talent in public health law practice.