Problems of Preparedness

U.S. Readiness for a Domestic Terrorist Attack

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Since the mid-1990s, the federal government has engaged in preparing the United States for highly destructive acts of terrorism, especially those involving chemical or biological weapons. Collectively known as the "U.S. domestic preparedness program," this effort involves multiple federal agencies and a variety of initiatives. The budget of the federal weapons of mass destruction (WMD) preparedness program grew from effectively zero in fiscal year 1995 to approximately $1.5 billion in FY 2000,[1] making this one of the fastest growing federal programs of the late 1990s.

The U.S. domestic preparedness program seeks to go beyond improving the physical security of particularly vulnerable or high-value targets, which has always been a part of the traditional counterterrorism formula. Instead it aims to reduce the vulnerability of American society to large, destructive acts of terrorism by improving operational response capabilities across the country, at all levels of government.[2] This effort bears a superficial resemblance to the U.S.

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1. Office of Management and Budget (OMB), *Annual Report to Congress on Combating Terrorism: Including Defense against Weapons of Mass Destruction/Domestic Preparedness and Critical Infrastructure Protection,* May 18, 2000, p. 45. Although there is some disagreement over exactly what constitutes a "weapon of mass destruction," all definitions include nuclear, chemical, and biological weapons. For a good technical primer, see U.S. Congress, Office of Technology Assessment, *Technologies Underlying Weapons of Mass Destruction,* OTA-BP-ISC-115 (Washington, D.C.: Government Printing Office [GPO], December 1993).
2. For a comprehensive survey of federal domestic preparedness programs, see Gregory Koblentz, "Overview of Federal Programs to Enhance State and Local Preparedness for Terrorism with Weapons of Mass Destruction," Discussion Paper (Cambridge, Mass.: Harvard University, John F. Kennedy School of Government, Executive Session on Domestic Preparedness [ESDP], forthcoming).

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civil defense program of the 1950 and 1960s, but its scale and complexity are unmatched.

This article addresses five interrelated questions. First, what practical initiatives does the U.S. domestic preparedness program entail? Second, how do these initiatives relate to other U.S. government functions, particularly counterterrorism and disaster management? Third, how did the program originate, and how has it evolved? Fourth, how is the program organized within the federal government, and why? Fifth, what major problems face the United States as it seeks to prepare itself for WMD terrorism at home?

These primarily diagnostic questions are important for two reasons. First, the domestic preparedness program is unprecedented and highly complex, has grown very fast, and confronts a range of public management challenges. External analytic attention may therefore improve the odds that the U.S. program will succeed. Second, no other nation has embarked on a comparable terrorism preparedness program.[3] Because the U.S. experience is unparalleled, an analysis of it will be instructive for other governments that consider following suit.

The literature on domestic preparedness is dominated by the debate about the severity of the threat of WMD terrorism. The domestic preparedness program has been a target of pointed criticism by the U.S. General Accounting Office (GAO) and individuals representing special interests that have not benefited from it. Neither, however, has generally examined the initiative as a whole or made practical recommendations to improve it.[4] Several official commissions and individual analysts have made recommendations concerning the proper goals of the program, but have not addressed the details of either implementation or structure.[5] Scholars to date have paid

3. See Ariel Merari, "Israel's Preparedness for High-Consequence Terrorism," BCSIA Discussion Paper 2000–30, ESDP Discussion Paper ESDP-2000–02 (Cambridge, Mass.: Harvard University, John F. Kennedy School of Government, ESDP, October 2000), http://www.esdp.org; and General Accounting Office (GAO), *Combating Terrorism: How Five Foreign Countries Are Organized to Combat Terrorism,* GAO/NSIAD-00-85, April 2000.

4. GAO, *Combating Terrorism: Spending on Governmentwide Programs Requires Better Management and Coordination,* NSIAD-98-39, December 1997; GAO, *Combating Terrorism: Opportunities to Improve Domestic Preparedness Program Focus and Efficiency,* NSIAD-99-3, November 12, 1998; GAO, *Combating Terrorism: Issues to Be Resolved to Improve Counterterrorism Operations,* NSIAD-99-135, May 13, 1999; and GAO, *Combating Terrorism: Need to Eliminate Duplicate Federal Weapons of Mass Destruction Training,* NSIAD-00-64, March 21, 2000.

5. See, for example, United States Commission on National Security/21st Century, *New World Coming: American Security in the Twenty-first Century,* September 15, 1999; John F. Sopko "The

little attention to the origin, history, structure, and implementation of the program.[6]

Fundamentally, the domestic preparedness program is one federal government response to assessing the terrorist threat to U.S. national interests. This article begins, therefore, with brief descriptions of the problem of terrorism and the recent U.S. debate about the severity of the threat it poses to the United States. This section seeks not to scrutinize the terrorism debate, but merely to provide context for the discussion of the domestic preparedness program.

The second section explains the general objectives, structure, and rationale of the program. Although it began as a counterterrorism initiative, in practice it is most closely related to the U.S. disaster management system. The location of the domestic preparedness program at the nexus of two distinct functional disciplines is one of its two sources of difficulty, the second being its origin in a series of discrete, uncoordinated legislative appropriations and administrative actions. A detailed history of the domestic preparedness program, presented in the article's third section, shows that the program is the result not of any guiding strategic concept but rather of ad hoc initiatives by individual policymakers. The fourth section describes six policy and management challenges facing the program and offers several recommendations.

Terrorism: An Evolving Threat, an Ongoing Debate

Terrorism is typically defined as premeditated violence used to achieve specific political, social, or religious objectives by instilling fear among the general public. No universal definition of terrorism exists, however, in part because it is such a variegated phenomenon.[7] Contemporary terrorist movements display enormous diversity in such factors as motivation, organization, geo-

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Changing Proliferation Threat," *Foreign Policy,* No. 105 (Winter 1996–97), pp. 3–20; Jonathan B. Tucker, "Chemical/Biological Terrorism: Coping with a New Threat," *Politics and the Life Sciences,* Vol. 15, No. 2 (September 1996), pp. 167–183; and National Commission on Terrorism, *Countering the Changing Threat of International Terrorism,* June 7, 2000, pp. 37–44, http://w3.access.gpo.gov/nct/index.html.

6. An exception is Arnold Howitt and Gregory Koblentz, "Organizational Capacity and Coordination: Obstacles and Opportunities in Preparing for Domestic Terrorism," Discussion Paper (Cambridge, Mass.: Harvard University, John F. Kennedy School of Government, ESDP, forthcoming).

7. See Bruce Hoffman, *Inside Terrorism* (New York: Columbia University Press, 1998), pp. 13–44; Paul Wilkinson, *Terrorism and the Liberal State,* 2d ed. (New York: New York University Press, 1986), pp. 50–68; and Richard Thackrah, "Terrorism: A Definitional Problem," in Paul Wilkinson and

graphic domain, tactics, size, and professionalism.[8] This definitional problem is compounded by the rhetorical power of the word "terrorist," which causes governments to apply the term according to their political preferences. In addition, because there is no agreed definition of terrorism, there is no comprehensive database of global terrorist movements or incidents, and the databases that do exist are biased.[9]

Terrorist methods appear to evolve with changes in weapons technology, the counterterrorist policies of individual states, and the international system. Shortly after the stabilization of chemical explosives as dynamite in 1867, for example, bombs replaced handguns as the weapon of choice for anarchists and other nineteenth-century terrorists.[10] Aircraft hijacking declined significantly after the widespread improvement of aircraft security measures and the introduction of metal detectors at airports in the early 1970s.[11] And left-wing terrorism, which during the 1970s and 1980s sought to trigger social revolution against capitalist systems, all but vanished after the end of the Cold War and collapse of the Soviet Union.[12]

Since the mid-1990s, many U.S. experts and government officials have argued that terrorists are becoming more fanatical in their motivations, less re-

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Alasdair M. Stewart, eds., *Contemporary Research on Terrorism* (Aberdeen, Scotland: Aberdeen University Press, 1987), pp. 24–41.

8. The federal government's official statement on the threat of international terrorism is U.S. Department of State, *Patterns of Global Terrorism,* http://www.state.gov/www/global/terrorism/gt_index.html.

9. These databases include the U.S. Department of State; the Jaffee Center for Strategic Studies in Tel Aviv; the RAND Corporation (which became a shared asset of the University of St. Andrews in 1994); Ed Mickolus; and recently the Monterey Institute of International Studies. For an analysis of the biases and limitations of these databases (not including the Monterey Institute), see A.J. Jongman, "Trends in International and Domestic Terrorism in Western Europe, 1968–88," in Alex P. Schmid and Ronald D. Crelinsten, eds., *Western Responses to Terrorism* (London: Frank Cass, 1993), pp. 26–76. For a discussion of the Monterey database, see Jonathan B. Tucker, "Historical Trends Related to Bioterrorism: An Empirical Analysis," *Emerging Infectious Diseases,* Vol. 5, No. 4 (July–August 1999), pp. 498–504.

10. Alfred Nobel patented dynamite (a mixture of nitroglycerin and kieselguhr) in 1867. Terrorists began using small bombs in the 1880s. In 1881 Johann Most, by all accounts a radical socialist, advocated the use of revolutionary chemistry (including dynamite) to "destroy homes, businesses, churches, factories, and the offices of the state." Shortly after that, the Anarchist Congress added its support for violence using new technologies. Throughout Europe, radical cells began employing explosive devices in more deadly, and more visible, attacks. See Martin A. Miller, "The Intellectual Origins of Modern Terrorism in Europe," in Martha Crenshaw, ed., *Terrorism in Context* (Philadelphia: Pennsylvania State University Press, 1995), pp. 27–63.

11. Peter St. John, *Air Piracy, Airport Security, and International Terrorism: Winning the War against Hijackers* (New York: Quorum Books, 1991).

12. Walter Laqueur, "Postmodern Terrorism," *Foreign Affairs,* Vol. 75, No. 5 (September/October 1996), p. 25.

strained in their tactics, and increasingly likely to employ weapons of mass destruction against the U.S. homeland or American interests abroad.[13] This assessment of the terrorist threat is not universal, however. Three broad factions are discernible in the U.S. debate about the gravity of the terrorist threat to the United States. The first faction sees terrorism as a minor problem that should not exercise undue influence on U.S. foreign policy or criminal justice. This view stresses the rarity of terrorist acts, the general weakness of terrorist movements, and the great strength of the United States. This position is often expressed implicitly, for example, when analysts or government officials ignore the subject of terrorism altogether. When expressed directly, it is often to argue that government officials and experts deliberately exaggerate the terrorist threat, or that certain aspects of the government's counterterrorism program compromise civil liberties.[14]

A second faction in the debate considers terrorism a significant problem for the United States, but argues that the threat consists mainly of the potential for conventional terrorist attacks involving bombs, guns, and hostages. This is the view of most longtime professional analysts of terrorism, such as David Claridge, Bruce Hoffman, Brian Jenkins, Ariel Merari, and Ehud Sprinzak.[15] These private sector analysts stress the political nature of terrorism by linking active terrorist threats to ongoing political conflicts in, for example, Northern Ireland, the Middle East, the Persian Gulf, and Kashmir. They argue that there is little if any evidence of terrorist interest in weapons of mass destruction, and hence that the U.S. domestic preparedness program is unnecessary or misguided, or both.[16]

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13. See National Commission on Terrorism, *Countering the Changing Threat of International Terrorism,* pp. 1–6.

14. Examples include Flora Lewis, "The New Anti-Terrorism," *New York Review of Books,* February 4, 1999, p. 24; Daniel Greenberg, "The Bioterrorism Panic," *Washington Post,* March 16, 1999, p. A21; and Robert Dreyfuss, "The Phantom Menace," *Mother Jones,* September–October 2000, pp. 40–46.

15. See David Claridge, "Exploding the Myth of Superterrorism," *Terrorism and Political Violence,* Vol. 11, No. 4 (Fall 1999), pp. 133–148; Bruce Hoffman, "America and the New Terrorism: An Exchange [The American Perspective]," *Survival,* Vol. 42, No. 2 (Summer 2000), pp. 161–166; Brian Jenkins, "The WMD Terrorist Threat—Is There a Consensus View?" in Brad Roberts, ed., *Hype or Reality: New Terrorism and Mass Casualty Attacks* (Arlington, Va.: Chemical and Biological Arms Control Institute, 2000), pp. 241–253; Ariel Merari, "Terrorism as a Strategy of Struggle: Past and Future," *Political Violence and Terrorism,* Vol. 11, No. 4 (Fall 1999), pp. 52–65; and Ehud Sprinzak, "The Great Superterrorism Scare," *Foreign Policy,* No. 112 (Fall 1998), pp. 110–124.

16. See Amy Smithson, "Ataxia: The Chemical and Biological Terrorism Threat and U.S. Response," Stimson Center Report No. 35, October 2000; Jonathan Tucker, "Chemical and Biological Terrorism: How Real a Threat?" *Current History,* April 2000, pp. 147–153; Jonathan Tucker and Amy Sands, "An Unlikely Threat," *Bulletin of Atomic Scientists,* Vol. 55, No. 4 (July–August 1999),

The third faction sees conventional terrorism as a significant but essentially manageable problem, with the real threat coming from the potential terrorist use of WMD. This view is expressed most often by strategic studies professionals, such as Graham Allison; Richard Betts, Ashton Carter, John Deutch, Philip Zelikow, Fred Iklé, Joseph Nye, and James Woolsey.[17] These experts stress the severity of the consequences of a WMD terrorist attack against the American homeland, and draw attention to the increasing availability of WMD-related materials and technology. They also note that all of America's major international adversaries possess some form of WMD capability, so a domestic WMD attack might be carried out by a hostile state rather than a nonstate actor.[18] For these reasons, these experts generally support the domestic preparedness program, along with many other initiatives aimed at reducing the accessibility of WMD, enhancing military preparedness for WMD contingencies, and improving the coherence of U.S. efforts to combat the full range of WMD threats.

The U.S. debate over the WMD terrorist threat cannot be resolved here.[19] For present purposes, it is sufficient to note that U.S. policymakers have come to regard the threat as serious enough to launch a nationwide effort to reduce it. As a result, the U.S. government has created multiple terrorism- and WMD-related offices within the federal bureaucracy and is devoting more than $1 billion a year to a variety of WMD domestic preparedness activities. The remainder of the article focuses on this policy response.

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pp. 46–52; and Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction (The Gilmore Commission), *First Annual Report to Congress* (Washington, D.C.: RAND, December 1999).

17. Graham T. Allison, "Must We Wait for the Nuclear Morning After?" *Washington Post,* April 30, 1995, p. C7; Richard K. Betts, "The New Threat of Mass Destruction," *Foreign Affairs,* Vol. 77, No. 1 (January–February 1998), pp. 26–41; Ashton Carter, John Deutch, and Philip Zelikow, "Catastrophic Terrorism: Tackling the New Danger," *Foreign Affairs,* Vol. 77, No. 6 (November–December 1998), pp. 80–94; Fred C. Iklé, "The Next Lenin: On the Cusp of Truly Revolutionary Warfare," *National Interest,* No. 47 (Spring 1997), pp. 9–19; Walter Laqueur, "The New Face of Terror," *Washington Quarterly,* Vol. 21, No. 4 (Autumn 1998), pp. 169–178; and Joseph Nye Jr. and R. James Woolsey, "Defend against the Shadow Enemy," *Los Angeles Times,* June 1, 1997. The present author has also made this argument. Richard A. Falkenrath, Robert D. Newman, and Bradley A. Thayer, *America's Achilles' Heel: Nuclear, Biological, and Chemical Terrorism and Covert Attack* (Cambridge, Mass.: MIT Press, 1998), pp. 261–336; and Richard A. Falkenrath, "Confronting Nuclear, Biological, and Chemical Terrorism," *Survival,* Vol. 40, No. 3 (Autumn 1998), pp. 43–65.

18. See Director of Central Intelligence George J. Tenet, "The Worldwide Threat in 2000: Global Realities of Our National Security," statement before the Senate Foreign Relations Committee, March 21, 2000, http://www.odci.gov/cia/public_affairs/speeches/dci_speech_032100.html.

19. See Richard A. Falkenrath, "Analytic Models and Policy Prescription," *Studies in Conflict and Terrorism,* Vol. 24, No. 3 (Spring 2001).

Domestic Preparedness: A Hybrid of Counterterrorism and Disaster Management

Domestic preparedness is only one of many U.S. programs aimed at combating terrorism and reducing the WMD threat to American national interests.[20] Most of these programs are executed by specific offices within the federal government's large law enforcement and national security bureaucracies, including the Federal Bureau of Investigation (FBI), U.S. Attorneys' offices, the Central Intelligence Agency, the Department of State, and the Department of Defense (DoD).[21] As a policy initiative, the domestic preparedness program is essentially an outgrowth and subset of U.S. counterterrorism policy. In practice, however, the program is functionally unrelated to virtually every other U.S. counterterrorism activity. Instead it is functionally related to disaster management, a government service that heretofore has had almost nothing to do with counterterrorism. The domestic preparedness program is thus a hybrid of these two distinct functions, a fact that lies at the heart of many of the program's problems. For this reason, it is useful to briefly summarize U.S. counterterrorism policy, describe the U.S. disaster management system, and explain how the domestic preparedness program fits between the two.

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20. For a description of the full range of U.S. programs aimed at countering the threats of WMD and terrorism, see Sidney D. Drell, Abraham D. Sofaer, and George D. Wilson, eds., *The New Terror: Facing the Threat of Biological and Chemical Weapons* (Stanford, Calif.: Hoover Institution Press, 1999); and Peter L. Hays, Vincent J. Jodoin, and Alan R. Van Tassel, eds., *Countering the Proliferation and Use of Weapons of Mass Destruction* (New York: McGraw-Hill, 1998). For an analysis of the major problems facing these efforts, see Ashton B. Carter and William J. Perry, "Countering Asymmetric Threats," in Carter and John P. White, eds., *Keeping the Edge: Managing Defense for the Future* (Cambridge, Mass.: MIT Press, 2001), pp. 119–128.

21. Historically, the federal government and U.S. law have sharply distinguished international threats from domestic ones. The federal government assigns responsibility for dealing with a threat to different sets of departments and agencies according to its international or domestic character. The permissible actions of these departments and agencies are controlled by different legal authorities, again according to the international or domestic character of the threat. In the case of terrorism, this international-domestic distinction forms the basis for the designation of a lead federal agency and for the division of specific counterterrorism responsibilities. The State Department is the lead federal agency for dealing with international terrorism. The FBI, which is in the DoJ, is the lead federal agency for dealing with all aspects of domestic terrorism except consequence management, for which FEMA is the lead federal agency. Experts and officials increasingly regard this bureaucratic distinction between international and domestic terrorism as unrealistic and anachronistic. See John Deutch, Arnold Kanter, and Brent Scowcroft, "Strengthening the National Security Interagency Process," in Carter and White, *Keeping the Edge,* pp. 265–271.

THE U.S. COUNTERTERRORISM CANON

The foremost objective of counterterrorism policy in virtually every state is prevention. All governments seek to deter terrorism by threatening—and inflicting—punishment on the perpetrators. Most governments also seek to discourage the emergence of new terrorist groups by creating an environment in which taking up arms against the state is illegal, counterproductive, and—ideally—foolhardy. Most governments work to deny terrorists the ability to implement their violent plans by enhancing the security of specific types of targets (e.g., airplanes and government office buildings) or by taking preemptive action. Individual states of course practice counterterrorism differently, but the differences typically have more to do with the vigor and details of implementation than with basic goals and strategies.

The United States has been reasonably consistent in its counterterrorism policy and practices over the last twenty years. In 1985 a commission chaired by Vice President George Bush laid down a set of principles for U.S. counterterrorism policy that have been espoused by the U.S. government ever since. The Bush report has assumed near-canonical status in U.S. counterterrorism policy. It includes four key principles.

1. "The U.S. government considers the practice of terrorism by any person or group of persons a potential threat to its national security and will resist the use of terrorism by all legal means available."[22] Furthermore, and unlike all other states, the United States has a global counterterrorism program: U.S. policy is to combat not just anti-American terrorism, but terrorism "in all its forms and wherever it takes place."[23] Compared with nearly all other liberal-democratic states,[24] the United States is more inclined to define terrorism as a national security threat and to deal with it forcefully.
2. "States that practice terrorism or actively support it will not do so without consequences. If there is evidence that a state is mounting or intends to conduct an act of terrorism against [the United States], the United States will take measures to protect its citizens, property and interests."[25] This principle lies behind the U.S. policy of punishing suspected state sponsors of interna-

22. *Public Report of the Vice President's Task Force on Combating Terrorism* (Washington, D.C.: U.S. GPO, February 1986), p. 7.
23. Ibid.
24. Israel and the United Kingdom are the two possible exceptions.
25. Ibid.

tional terrorism through political ostracization, economic sanctions, and sometimes unilateral military retaliation.

3. "The U.S. government will make no concessions to terrorists. It will not pay ransoms, release prisoners, change its policies or agree to other acts that might encourage additional terrorism. At the same time, the United States will use every available resource to gain the safe return of American citizens who are held hostage by terrorists."[26] The administration of Ronald Reagan violated this principle with its Iran-Contra scheme to release American hostages in Lebanon, but since then the U.S. government has taken a hard line against making concessions to terrorist demands.
4. "The U.S. government will act in a strong manner against terrorists without surrendering basic freedoms or endangering democratic principles."[27] In practice, the United States seeks to punish individual terrorists by apprehending them and subjecting them to criminal prosecution in a U.S. court with all the rights and safeguards afforded to any criminal defendant under U.S. law. Law enforcement has thus come to play a large and, in some cases, predominant role in U.S. counterterrorism. Some national security and counterterrorism experts have criticized this development, arguing that the rising significance of federal law enforcement agencies (namely, the FBI) has made U.S. counterterrorism efforts less flexible and more insulated from national strategic considerations.[28]

In the early 1990s, the Clinton administration added a fifth counterterrorism principle that enjoys wide official support, but is rarely discussed in public or in detail because of diplomatic sensitivities: The United States will provide assistance to other governments combating terrorism in the form of specialized training, technical aid, financial assistance, and intelligence.[29]

A full evaluation of U.S. counterterrorism policy is beyond the scope of this article. It should be noted, however, that U.S. officials argue that the policy has had considerable success in promoting greater counterterrorism efforts and

26. Ibid.
27. Ibid.
28. See, for example, Carter, Deutch, and Zelikow, "Catastrophic Terrorism," p. 82.
29. U.S. Department of State, *Patterns of Global Terrorism,* p. 1. The Department of State's Antiterrorism Training Assistance program offers courses to foreign law enforcement personnel in such areas as airport security, bomb detection, hostage rescue, and crisis management. To date, more than 20,000 representatives from more than one hundred nations have received training. See "Fact Sheet: U.S. Counterterrorism Efforts since the 1998 U.S. Embassy Bombings in Africa," as released by the Office of the Spokesman, U.S. Department of State, August 7, 2000.

discreet cooperation among other states, especially in curtailing state sponsorship of international terrorism. Critics, on the other hand, tend to argue that the U.S. response is excessive given the relatively modest threat facing the country, and indeed is counterproductive because it exaggerates the power and stature of individual terrorists.

In the context of America's overall effort against terrorism, the domestic preparedness program is an innovation. Previously, U.S. counterterrorism policy had placed no special emphasis on the possible terrorist acquisition or use of weapons of mass destruction, nor did it concern itself with mitigating the physical damage of terrorist attacks after they occurred. Yet because the specific initiatives associated with domestic preparedness are entirely dissimilar from traditional counterterrorism activities, the program does not fit neatly into or build upon past U.S. counterterrorism practices. Rather it belongs in the U.S. disaster management system.

THE U.S. DISASTER MANAGEMENT SYSTEM

Like all developed countries, the United States has a system for saving lives, protecting property, and meeting basic human needs during and after all kinds of disasters. The fundamental structure of the U.S. emergency management system is a function of the federal structure of the government. According to Article 10 of the U.S. Constitution, responsibility for emergency and disaster management lies with the states. Each state therefore maintains its own emergency management agency, plans, and capabilities—as do most local governments.

Although not mandated by the Constitution, the role of the federal government in the emergency management system has grown steadily since the early nineteenth century.[30] American public leaders recognize that major disasters often overwhelm the response capabilities of state and local governments. Therefore the federal government has assumed responsibility for providing supplemental assistance and resources to state and local authorities faced with overwhelming disasters. The system for supplying this assistance was ad hoc

30. Elements of the federal emergency management system date back to the Congressional Act of 1803, which provided assistance to a New Hampshire town following a large fire. For the next 130 years, disaster legislation passed on an ad hoc basis. In the 1930s, a series of new federal statutes gave public agencies the authority to provide disaster assistance. For more information on the history of U.S. disaster management and FEMA, see http://www.fema.gov/about/history.htm.

and extremely fragmented until the 1970s, when two landmark reforms sought to impose coherence. The first was the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974, which clarified the types of assistance that the federal government could provide in a disaster and established the current mechanism for releasing this assistance through a presidential disaster declaration issued at the request of a governor.[31] The second was the creation of the Federal Emergency Management Agency (FEMA) in 1979, which consolidated multiple disaster and emergency assistance programs that had emerged throughout the federal government. FEMA's core responsibility is to coordinate all financial, operational, and technical assistance to state and local agencies during disasters, which it does through its Washington headquarters and ten regional offices that work closely with these agencies. FEMA's mission has grown to include restoring and reconstructing areas damaged in disasters, as well as reducing the vulnerability of communities to disasters through programs that educate and train response personnel and exercise these learned skills via simulated disaster scenarios.

FEMA was established to address the duplication and confusion caused by multiple federal disaster assistance programs and response plans. For this reason, it aims to provide a single, integrated all-hazard disaster management system for the nation. The all-hazards approach to disaster management seeks to apply the same management system to all categories of natural disasters—including earthquakes, floods, forest fires, hurricanes, tornadoes, landslides, and disease outbreaks—as well as to all categories of technological or man-made disasters—for example, building fires, collapsed structures, hazardous material (HAZMAT) incidents, oil spills, nuclear reactor accidents, terrorism, and war. FEMA's most important tool to support its all-hazards approach is the Federal Response Plan (FRP), a single document accepted by twenty-seven federal agencies that "establishes a process and structure for the systematic, coordinated, and effective delivery of Federal assistance to address the conse-

31. According to the FEMA web site: "The Stafford Act: The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law (P.L.) 93–288, as amended, authorizes the President (FEMA per Executive Order 12673) to provide financial and other forms of assistance to State and local governments, certain private nonprofit organizations and individuals to support response, recovery and mitigation efforts following presidentially declared major disasters and emergencies. The Stafford Act describes generally the declaration process, the types and extent of assistance that may be provided and fundamental eligibility requirements." See http://www.fema.gov/r-n-r/pa/papd/105.htm.

quences of any major disaster or emergency declared" by the president under the Stafford Act.[32]

Although FEMA has improved the coherence of the U.S. disaster management system, the emergency management system for the country as a whole has many layers and lacks complete integration. Whatever the merits of the Federal Response Plan, it essentially overlays a variety of plans produced by state and local governments, voluntary organizations (i.e., church and community groups), and numerous private companies. Moreover, even though the FRP represents a major improvement over the fragmented federal disaster assistance programs of the past, it is not comprehensive. For bureaucratic and legal reasons, the federal response to certain types of hazards is still managed by special, separate response plans, such as the Federal Radiological Emergency Contingency Plan, the National Plan for Telecommunications Support in Non-Wartime Emergencies, and the National Contingency Plan (for oil and hazardous material spills).

The domestic preparedness niche: chemical and biological weapons consequence management

The U.S. domestic preparedness program seeks to improve the nationwide capacity to manage the consequences of a chemical or biological weapons attack by, among other things, offering targeted federal assistance to state and local disaster management agencies. This use of federal assistance follows logically from the structure of the U.S. disaster management system and the nature of chemical and biological weapons. State and local agencies already possess many of the operational systems—such as police and fire departments, HAZMAT teams, emergency medical services, emergency management, and public health agencies—on which the nation's current preparedness for terrorism and other disasters depends. Further, because a terrorist attack can occur anywhere, anytime, and without warning, the federal government simply cannot maintain the necessary operational capabilities across the breadth of the United States, particularly for a category of incidents as uncommon as WMD terrorism.

Three basic factors explain the domestic preparedness program's focus on chemical and biological weapons consequence management. First, the U.S. policymakers who created the program accept the argument that the greatest

32. FEMA, *Federal Response Plan* (Washington, D.C.: FEMA, April 1999), p. 15, http://www.fema.gov/r-n-r/frp/.

terrorist threat to U.S. national interests is the use of WMD against the U.S. homeland. By the mid-1990s, the U.S. government had in place a wide range of programs aimed a combating terrorism or reducing the WMD threat. Domestic preparedness was one of only a handful of practical options for lowering this threat that was not already a U.S. government priority. By process of elimination, therefore, policymakers interested in reducing the threat of WMD terrorism were left with creating a program that sought to mitigate the consequences of an attack.

Second, the deficiencies in existing capabilities for dealing with more common, conventional forms of terrorism are smaller than the deficiencies in WMD response capabilities. As might be expected, the United States is generally best prepared for more probable, lower-consequence forms of terrorism (e.g., small bombings, hijackings, and hostage-barricade situations) and least prepared for the less common, higher-consequence forms of terrorism, such as mass-casualty attacks involving chemical or biological weapons.

Third, chemical and biological weapons—unlike virtually all other weapon types—have physical effects that can be substantially mitigated by a prompt and appropriate operational response. In the case of a chemical weapons attack, this response involves decontamination and medical treatment. The effects of biological weapons can be treated medically, but a key variable in the efficacy of this treatment is the promptness and accuracy of diagnosis, which means that biological preparedness also requires enhancements in epidemiological surveillance systems.[33] The immediate physical effects of a nuclear weapons attack on a human being cannot be substantially reduced; hence the U.S. domestic preparedness program has not focused on limiting the damage of a nuclear incident.[34] There is, however, an opportunity to reduce the country's vulnerability to chemical and biological terrorism by developing the specific response capabilities needed to alleviate the weapons' physical effects. The program seeks to exploit this opportunity by improving the opera-

33. See David R. Franz et al., "Clinical Recognition and Management of Patients Exposed to Biological Warfare Agents," in Joshua Lederberg, ed., *Biological Weapons: Limiting the Threat* (Cambridge, Mass.: MIT Press, 1999), pp. 37–81; Centers for Disease Control and Prevention, "Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response," *Morbidity and Mortality Weekly Report,* April 21, 2000; and Chemical and Biological Arms Control Institute and Center for Strategic and International Studies, *Contagion and Conflict: Health as a Global Security Challenge* (Washington, D.C.: CSIS, 2000).

34. A partial exception to this is the system of radiological emergency response plans that the United States has developed for the regions around its nuclear power plants. See Nuclear Regulatory Commission's web site at http://www.nrc.gov/NRC/AEOD/ER/index.html.

tional capacity to respond appropriately to a chemical or biological weapons attack.

Most of the activities associated with the U.S. domestic preparedness program are closely related to basic disaster management functions, such as providing special training, procuring special equipment, developing plans, and conducting exercises and simulations. In this sense, the U.S. domestic preparedness program builds logically on the existing U.S. disaster management system. However, because the program has emerged as a national security—specifically, counterterrorism—initiative, the U.S. government agencies that implement it are to a large extent institutionally segregated from the U.S. disaster management system. Both the FBI and DoD have developed WMD incident response plans separate from the FRP, while policy development has been led by the White House, not FEMA. This limited integration of domestic preparedness with existing disaster management systems is a result of the program's peculiar origins (as explained below), and could lead to problems in the future.

History of the U.S. Domestic Preparedness Program

The U.S. domestic preparedness program is composed of multiple, loosely related programs. The location, size, and character of these programs were determined not by an overarching national strategy but rather by a fragmented, often chaotic policymaking and budget-setting process. The technical requirements of effective domestic preparedness require specific capability-building programs distributed across multiple agencies and levels of government. For this reason, and because each program has a distinct statutory basis, the overall domestic preparedness program has been only loosely coordinated. This limited coordination has created certain difficulties and wasted some resources, but is not especially unusual for a national function as ambitious and novel as domestic preparedness for WMD terrorism.

The U.S. domestic preparedness program began after a series of unusually destructive terrorist incidents in 1993–95.[35] The February 1993 bombing of the World Trade Center in New York City demonstrated that foreign terrorists could and would attack the American homeland. The March 1995 nerve gas at-

35. For a more detailed discussion of the perceptual and conceptual origins of the U.S. domestic preparedness program, see Falkenrath, "Analytic Models and Policy Prescription."

tack in the Tokyo subway further demonstrated that terrorist use of advanced weapons of mass destruction was no longer a purely theoretical possibility.[36] The April 1995 bombing of the Oklahoma City federal building was the most deadly terrorist attack in U.S. history. These three incidents created a climate of intense popular interest in the threat of terrorism, especially terrorism involving WMD. The media began to run more stories on terrorism—both with and without WMD—many of which were uncritical, sensational, or poorly informed.

The terrorist acts of 1993–95 also triggered growing official concern with the terrorist threat to the American homeland. In June 1995, the White House laid out the basic contours of federal counterterrorism policy in presidential decision directive 39 (PDD-39).[37] PDD-39 called for heightened federal agency efforts in counterterrorism and preparedness, but directed relevant agencies to fund these programs out of existing budgets and did little to strengthen transagency coordination. The document signaled growing White House concern, but in practice did little more than clarify certain bureaucratic areas of responsibility.

The domestic "first responder" community, the military, and the Congress moved more decisively than the executive branch in transforming the rising concern over WMD terrorism into a practical policy initiative. Immediately after the nerve gas attack in Tokyo, the U.S. Marine Corps created the Chemical and Biological Incident Response Force (CBIRF), which consolidated the bulk of the corps' existing chemical and biological defense capabilities into a single, deployable unit.[38] Around the same time, leaders from a few local first-responder agencies such as fire, police, and emergency medical personnel (mainly in New York City and the Washington, D.C., area) began to advocate for improved equipment and training, in response to learning that in the Tokyo

36. For more information on the Tokyo sarin attack, see Ian Reader, *Religious Violence in Contemporary Japan: The Case of Aum Shinrikyo,* Nordic Institute of Asian Studies Monograph Series, No. 82 (London: Curzon, 2000); Robert Jay Lifton, *Destroying the World to Save It: Aum Shinrikyo, Apocalyptic Violence, and the New Global Terrorism* (New York: Metropolitan Books, 1999); David Kaplan and Andrew Marshall, *The Cult at the End of the World: The Incredible Story of Aum* (London: Hutchinson, 1996); and Kyle Olson, "Aum Shinrikyo: Once and Future Threat?" *Emerging Infectious Diseases*, Vol. 5, No. 4 (July/August 1999), http://www.cdc.gov/ncidod/eid/vol5no4/contents.htm.

37. An unclassified summary of PDD-39 is available at http://www.fas.org/irp/offdocs/pdd39.htm.

38. For more information on CBIRF, see "Chemical/Biological Incident Response Force," http://www.maxwell.af.mil/au/awc/awcgate/CBIRF/cbirf.htm.

attack many unprepared response personnel were seriously injured while trying to help the victims.[39]

THE NUNN-LUGAR-DOMENICI PROGRAM

Partially in response to the call for assistance from the domestic first-responder community, Congress passed the Defense against Weapons of Mass Destruction Act of 1996, better known as the Nunn-Lugar-Domenici amendment, in September 1996.[40] This legislation was the result of a series of hearings held by Senators Sam Nunn (D-Georgia), Richard Lugar (R-Indiana), and Pete Domenici (R-New Mexico) between late 1995 and early 1996.[41] The hearings highlighted the vulnerability of the United States to various forms of terrorism, as well as the poor state of preparation and coordination of U.S. capabilities for responding to domestic chemical weapons incidents. The resulting legislation directed that the "Secretary of Defense shall carry out a program to provide civilian personnel of Federal, State, and local agencies with training and expert advice regarding emergency responses to a use or threatened use of a weapon of mass destruction or related materials," and made available approximately $100 million in FY 1997 for this purpose.[42]

Interestingly, the executive branch did not request that the domestic preparedness program be established in the Department of Defense. Indeed the Pentagon, and especially the uniformed military, did not wish to assume responsibility for domestic WMD preparedness or response operations, which they continue to view as a distraction from their core mission of war fighting. Rather the Congress assigned the program to the Defense Department as a result of budgetary politics: The Nunn-Lugar-Domenici legislation was an amendment to the FY 1997 defense authorization bill. A decision by Congress

39. The first of these domestic response teams was the Metropolitan Medical Strike Team (now part of the Metropolitan Medical Response System) in the Washington, D.C., metropolitan area, established by the HHS Office of Emergency Preparedness in July 1995. Additional programs were established in Atlanta and seventy other U.S. metropolitan areas. See NDMS/OEP home page at http://ndms.dhhs.gov/.

40. The Defense against Weapons of Mass Destruction Act was part of the FY 1997 defense authorization act signed on September 23, 1996, P.L. 104-201.

41. Senate Committee on Governmental Reform, Permanent Subcommittee on Investigations, *Global Proliferation of Weapons of Mass Destruction* (Washington, D.C.: GPO, 1996).

42. Approximately half of the money was provided to the Department of Defense ($52 million) to conduct training of state and local first responders, while the remainder of the funding was earmarked for the Department of Health and Human Services ($6.5 million), the Department of Justice ($17 million), the Federal Emergency Management Agency ($15 million), and the Customs Service ($9 million). See P.L. 104–201, sec. 1412 (A) (1).

to add almost $20 billion to the Clinton administration's defense budget request in 1996 meant that there was substantial uncommitted funding in the FY 1997 defense budget, thus room for a new, small program.[43] In addition, the three senators expressed greater confidence in the Defense Department's ability to implement the program than in that of the civilian agencies, which lacked the military's substantial resources in chemical and biological defense.

In recognition of the Pentagon's indifference, the Nunn-Lugar-Domenici legislation contained a provision allowing the president to transfer the program to another federal agency in two years. Most people involved in 1996–97 assumed that this agency would be FEMA. This was because the Nunn-Lugar-Domenici program was essentially preparing local response personnel to manage the consequences of a chemical weapons terrorist incident, and FEMA was (according to PDD-39) the lead federal agency for consequence management. FEMA elected not to take over the program, however, again for budgetary reasons. FEMA's budget is much leaner than DoD's ($3.4 billion vs. $268 billion in FY 2000), and has even less discretionary authority.[44] Because the congressional committees that authorize and appropriate FEMA's budget are different from those that created the Nunn-Lugar-Domenici program, the agency feared that if it were to assume responsibility for the program (an executive branch decision), it would not receive the budgetary resources needed to implement it (a legislative decision). The result would be a severe drain on FEMA's limited discretionary resources and, in all likelihood, public criticism for ineffective implementation. Consequently, FEMA has played only a minor role in the domestic preparedness program—in stark contrast to the lead role it has taken in coordinating federal consequence management activities.

THE GROWING ROLE OF THE DEPARTMENT OF JUSTICE

The final institutional location of the Nunn-Lugar-Domenici program was thus unclear for much of 1997–98. In 1999 the Clinton administration transferred the program to the Department of Justice (DoJ), effective October 1, 2000.[45] The

43. For the Department of Defense's FY 1997 budget request and the budget enacted by Congress, see http://www.clw.org/milbud.html.

44. The FEMA budget figure is the administration's FY 2000 budget request. See "FEMA Asks Congress for $3.4 Billion 2000 Budget," http://www.fema.gov/nwz99/99020.htm. The DoD figure is the budget enacted by the Congress and signed into law by the president. See Center for Strategic and Budgetary Assessments, http://www.csbaonline.org/3Defense_Budget/Defense_Budget.htm. According to Janice Green of the budget office at FEMA, FEMA's FY 2000 budget was $872,709,000. The FY 2001 budget has not yet been set.

45. Office of the White House Press Secretary, *Memorandum on Emergency Response Assistance Program,* "Subject: Designation of the Attorney General as the Lead Official for the Emergency Re-

DoJ has long been central to the U.S. counterterrorism effort, and PDD-39 confirmed this role by designating the FBI as the lead federal agency for crisis management of terrorist incidents.[46] Unlike DoD, however, the DoJ and the FBI did not possess the extensive specialized resources needed to prepare for, let alone conduct, an effective operational response to an incident of chemical or biological terrorism. The FBI and DoJ investigate and prosecute crimes, respectively—tasks entirely different from consequence management. Yet DoJ did possess an established apparatus for providing technical and financial assistance to state and local law enforcement and criminal justice agencies—the Bureau of Justice Assistance (BJA)—which in FY 1999 had a budget of $3.9 billion.

The Department of Justice and the FBI were only tangentially involved in the DoD program to provide specialized training and equipment to state and local response agencies, but through congressional initiative a parallel program began to emerge. The first in a series of discrete congressional earmarks for specific counterterrorism projects appeared in the April 1996 Antiterrorism and Effective Death Penalty Act.[47] In FY 1997 the National Institute of Justice, an arm of the DoJ that supports state and local law enforcement agencies, received a congressional earmark of $10 million to develop new counterterrorism technologies. At the same time, BJA began a small training program to equip firefighters and other emergency services personnel in 120 targeted urban jurisdictions with skills for handling mass disasters.[48] In FY 1998 Congress earmarked $17 million for a Special Equipment and Training Grant Program and another $4 million for the operation of four major institutions, including Fort McClellan, Alabama, a military chemical defense facility that the Pentagon had planned to shut down. To implement this program, the DoJ established the Office of State and Local Domestic Preparedness Support.

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sponse Assistance Program under Sections 1412 and 1415 of the National Defense Authorization Act for Fiscal Year 1997 (Public Law 104-201)," April 6, 2000, http://www.pub.whitehouse.gov/uri-res/I2R?urn:pdi://oma.eop.gov.us/2000/4/7/7.text.2.

46. PDD-39 defined two major phases of an operational response to a terrorist incident: "crisis management" and "consequence management." Crisis management refers to all activities required to eliminate an ongoing terrorist threat, apprehend the perpetrators, and prepare a criminal prosecution. Consequence management refers to disaster response activities such as medical care, HAZMAT cleanup, and personal decontamination.

47. Anti-Terrorism and Effective Death Penalty Act of 1996, April 24, 1996, P.L. 104-132.

48. Department of Justice, *OJP Annual Report for Fiscal Year 1997* (Washington, D.C.: GPO, 1998), p. 19. The BJA program was called the Metropolitan Firefighter and Emergency Services National Training Program for First Responders to Terrorist Incidents. The federal government also provides training for firefighters and emergency managers through the National Fire Academy and the Emergency Management Institute, respectively, but these entities are subordinate to FEMA and thus funded by different authorizing and appropriating subcommittees.

The mission of this office was effectively identical to that of the Nunn-Lugar-Domenici program.

The FBI's counterterrorism budget also increased rapidly in the late 1990s.[49] In this case, however, the additional funding was used to augment the existing capabilities of the bureau rather than to assist other agencies.[50] The FBI increased the number of agents assigned to counterterrorism investigations and support functions; invested in new specialized capabilities such as the Hazardous Materials Response Unit (established in 1996); enhanced analytical capabilities for nuclear, biological, and chemical materials at the FBI laboratory; and provided WMD training for select FBI special agents. In October 1998, the U.S. attorney general announced the creation of the National Domestic Preparedness Office (NDPO) within the FBI. The office was to be the single point of contact for state and local agencies seeking federal preparedness assistance.[51] The NDPO has not accomplished this objective, however, because it lacks bureaucratic clout within the DoJ and the government as a whole, as well as congressional funding.

DEPARTMENT OF DEFENSE ATTEMPTS TO REDEFINE ITS ROLE

Like the FBI, the Department of Defense has also invested in developing its capabilities for supporting domestic WMD response operations.[52] In late 1996, Secretary of Defense William Cohen asked the Defense Science Board (DSB), a standing advisory panel, to examine the Defense Department's role in national efforts to deal with "transnational threats," including WMD terrorism. The resulting study recommended inter alia an expanded role for the National Guard in this area.[53] The DSB argued that the National Guard was well suited for civilian support in WMD contingencies because of its even distribution across the United States and its unique legal status, which makes it available both to governors and to the president.[54] In March 1998, the secretary announced the

49. The FBI's counterterrorism budget rose from $256 million in 1995 to $581 million in 1998. GAO, *Combating Terrorism: FBI's Use of Federal Funds for Counterterrorism-Related Activities (FYs 1995–98)*, GAO-GGD-99–7, November 1998, p. 2.
50. An exception is the State and Local Bomb Technician Equipment Program at the FBI's Hazardous Devices School at Redstone Arsenal, Alabama.
51. The decision to create the NDPO was a response to complaints voiced at an August 1998 meeting of federal, state, and local "stakeholders" in domestic preparedness.
52. The Department of Defense stresses that it will support only domestic WMD response operations, and only when requested to do so by the proper civilian authorities.
53. Defense Science Board, *DoD Responses to Transnational Threats* (Washington, D.C.: GPO, 1997).
54. See National Guard Bureau report to Congress, *Enhancing the National Guard's Readiness to Support Emergency Responders in Domestic Chemical and Biological Terrorism Defense*, report to Congress, July 20, 1999, http://www.ngb.dtic.mil/wmd/report/; and Science Applications International

creation of ten National Guard teams for WMD support; by 2000 the planned number of such teams had risen to twenty-seven.[55] In 1999 the Defense Department also established Joint Task Force Civilian Support (JTF-CS), a command structure based in Norfolk, Virginia, for active-duty military units that might deploy in domestic WMD response operations, and a position within the secretary's office to coordinate DoD consequence management assistance to civilian authorities.[56] With these reforms and the planned transfer of the Nunn-Lugar-Domenici program to the DoJ, DoD effectively redefined its role in domestic preparedness. DoD would no longer provide training and equipment to civilian responders, but would instead develop and maintain specialized response capabilities that could deploy in domestic situations.

WHITE HOUSE EFFORTS TO IMPROVE FEDERAL COORDINATION

Numerous public officials (including members of Congress), government-chartered commissions, and individual experts criticized the federal domestic preparedness program for duplication, poor coordination, incoherence, and unclear or incorrect priorities. Almost all officials involved as well as outside observers were confused by the separate but similar training and equipment programs in the Departments of Defense and Justice, each with separate regulations and requirements, as well as the profusion of minor programs and initiatives in various federal agencies. State and local recipients of federal assistance complained that the officials in charge of the program did not understand state and local disaster management systems or appreciate the emergency response capabilities already available in most communities. Officials from state governments complained that the DoD program, by providing as-

Corporation, *Report to the National Guard Bureau Weapons of Mass Destruction Study,* February 9, 1999, http://www.ngb.dtic.mil/wmd/index/htm.

55. The teams were initially called Rapid Assessment and Initial Detection, or RAID, teams. They were subsequently renamed Weapons of Mass Destruction Civil Support Teams. Each team consists of twenty-two soldiers with special training and equipment. See National Guard Bureau, *Enhancing the National Guard's Readiness to Support Emergency Responders in Domestic Chemical and Biological Terrorism Defense;* and prepared statement of Charles Cragin, acting assistant secretary of defense for reserve affairs, before the House Committee on Government Reform, National Security, Veterans Affairs, and International Relations Subcommittee, hearing on "Combating Terrorism: The National Guard Rapid Assessment and Initial Detection (RAID) Teams," June 23, 1999.

56. The Pentagon office is the Consequence Management Program Integration Office, which is subordinate to the director of military support. The new command structure is the Joint Task Force Civilian Support (JTF-CS), which is a subordinate command of Joint Forces Command, based in Norfolk, Virginia. For a more complete review of Defense Department programs in the domestic preparedness area, see Koblentz, "Overview of Federal Programs to Enhance State and Local Preparedness for Terrorism with Weapons of Mass Destruction."

sistance directly to local agencies, injected confusion into statewide emergency management plans. Emergency management professionals across the country were puzzled by the peripheral role of FEMA. Biological weapons experts criticized the almost exclusive emphasis on chemical weapons preparedness during the first three years of the program (discussed below).

The executive branch bore the brunt of this criticism, though in fact it was only partially to blame. The disorder evident in the domestic preparedness program resulted from its origin as an ad hoc assemblage of individual congressional earmarks. Each component of the program was controlled by specific legislation that had been passed by Congress and signed by the president, which federal agencies are obliged to implement as directed and with the funds provided in each year's appropriation.[57] No one in the executive branch, therefore, had the authority to coordinate the program as a whole or even to deviate from its many specific legislative requirements. The failure of the Clinton administration was to cede the initiative to Congress and not develop a national strategy for domestic preparedness.

In May 1998, in part with these coordination problems in mind, the White House issued PDD-62, entitled "Protection against Unconventional Threats to the Homeland and Americans Overseas."[58] This document went beyond its predecessor, PDD-39, by upgrading and enlarging the National Security Council (NSC) office responsible for coordinating federal counterterrorism, domestic preparedness, and critical infrastructure protection programs. The office was directed by Richard Clarke, an experienced senior member of the NSC staff, who was given the title of national coordinator for security, infrastructure protection, and counterterrorism. Although this office had no formal authority over the budgets or programs of any federal agency, increased attention and activism by the White House appeared to have produced some improvement.[59] The most important advance concerned the federal government's ef-

57. This problem was also noted in the 1999 final report of a congressionally chartered commission chaired by former Director of Central Intelligence John Deutch: "Congressional-executive interaction is complicated by the number of congressional committees that now have oversight and budgetary authority over proliferation-related programs. Oversight from at least twenty committees heightens the need for coherent, continuous consultation between the branches." *Report of the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction* (Washington, D.C.: GPO, July 1999), p. 7, http://www.fas.org/spp/starwars/program/deutch.

58. An unclassified summary of PDD-62 is available at http://www.fas.org/irp/offdocs/pdd-62.htm.

59. Furthermore, as a member of the White House staff, the national coordinator is not accountable to Congress. This has produced some frustration on Capitol Hill, because no one official is unambiguously in charge of the government's domestic preparedness or counterterrorism programs.

forts to prepare for terrorism involving biological weapons, a subject that had languished until the White House seized the issue in mid-1998.[60]

PUBLIC HEALTH AGENCIES' ACCEPTANCE OF A BIOTERRORISM PREPAREDNESS MISSION

In 1995, immediately after the Tokyo subway attack, the Office of Emergency Preparedness—a small office within the Department of Health and Human Services (HHS) responsible for coordinating federal medical services in major disasters—began working with emergency service providers in the Washington, D.C., metropolitan area to devise a plan for improving their collective capability for responding to a Tokyo-like incident in the capital region. The result was the Metropolitan Medical Response System (MMRS) program, which supported municipal efforts to prepare emergency medical providers for the consequences of a chemical weapons incident. The MMRS program was very small: Between 1995 and 1998, it provided twenty-seven cities with grants of $350,000 each. HHS was unable to significantly expand the MMRS program because of competing traditional demands on the already tight HHS budget, and because the department's authorizing and appropriating committees did not allocate funds for the program, unlike their counterparts in the Departments of Justice and Defense.

The MMRS and other domestic preparedness programs initiated between 1995 and 1998 focused primarily on preparing for chemical weapons attacks, not biological weapons attacks. These initiatives emphasized the need for specialized training, protective clothing, medicine, and other equipment for response personnel—mainly firefighters, police, and emergency medical technicians—who would be called to secure the scene of an attack and rapidly extract, decontaminate, and treat the victims. Several reasons account for this

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In the late 1990s, Congress tended to regard the attorney general as the leading official responsible for the federal government's programs in this area. In 1998, for instance, Congress required that the attorney general prepare a Five-Year Interagency Counterterrorism and Technology Crime Plan, which was submitted to Congress in December 1998. The value of this report is not obvious, however, because the Department of Justice does not determine or even influence the budgets of other agencies, and because the attorney general's plan does appear to be the same as the White House's plan. See Senate Committee on Appropriations, Subcommittee on Commerce, Justice, and State, the Judiciary, and Related Agencies, *Counterterrorism and Infrastructure Protection* (Washington, D.C.: GPO, 1999), pp. 29–31.

60. President Bill Clinton was reportedly motivated, at least in part, by the novel *Cobra Event* by Richard Preston, which describes a bioterrorism incident in New York City. See Judith Miller and William Broad, "Exercise Finds U.S. Unable to Handle Germ War Threat," *New York Times,* April 26, 1998, p. A1. This initiative was announced during Clinton's speech at the U.S. Naval Academy commencement on May 22, 1998, http://www.pub.whitehouse.gov/uri-res/I2R?urn:pdi://oma.eop.gov.us/1998/5/26/18.text.1.

emphasis on chemical weapons. First, many public officials and experts tended to assume that the next WMD terrorist incident would resemble the chemical weapons attack in the Tokyo subway. It was relatively easy to imagine how emergency services should respond to chemical weapons incidents, which have certain similarities to relatively common bombings and hazardous materials accidents. An operational response to a chemical weapons attack would fit into the familiar "lights and sirens" model in which police, fire, and emergency medical services personnel as well as others converge on a single incident site with numerous vehicles, with the differences having to do mainly with the greater scale and toxicity of a chemical weapons incident. Second, the leaders of the first-responder community lobbied Congress to ensure that the particular interests of their agencies benefited from this new federal funding source. This meant that the programs would provide equipment and training useful mainly in a chemical weapons response.

A biological weapons attack would bear little if any resemblance to a chemical weapons attack, and thus would require a different operational response. The key response capabilities in a biological attack will be the medical care providers, who will be needed on a massive scale to treat infected populations, and the public health sector, which may provide the first indication of an attack through its monitoring of death and illness patterns. Moreover, an act of biological terrorism would have no necessary temporal or spatial boundaries: The delayed onset of symptoms coupled with the mobility of citizens today means that the location of the attack will not be obvious, and the medical consequences of the attack may continue over an extended period of time. The nature of biological weapons attacks is not widely understood, however, because there is almost no historical experience with these weapons. There is, in other words, no biological analogue to Tokyo.[61]

The Department of Health and Human Services did not initially attach high priority to preparing for biological terrorism because the United States—and indeed the world—face a multitude of pressing health problems, virtually all of which are everyday realities, not worrisome hypothetical scenarios. These prevailing health problems have placed great demand on the HHS budget, which is considerably leaner than the budgets of many national security agencies. In addition, the congressional committees that determine the HHS budget

61. The only modern experience with a large-scale aerosolization of a biological weapon was in 1979, when an accident at a military facility released anthrax over the city of Sverdlovsk, Russia. See Matthew Meselson et al., "The Sverdlovsk Anthrax Outbreak of 1979," in Lederberg, *Biological Weapons,* pp. 193–209; and Jeanne Guillemin, *Anthrax: The Investigation of a Deadly Outbreak* (Los Angeles: University of California Press, 1999).

did not take the initiative in defining biological weapons preparedness as a national security mission. Once the Clinton administration embraced the threat of biological terrorism and sought substantial HHS funding for preparedness activities in late 1998, however, the HHS authorizing and appropriating committees were willing to meet these requests.

The Department of Health and Human Services embraced biological weapons preparedness in mid-1998, mainly because of the White House pressure. Since then, the budget of the HHS biological terrorism program, which is based in the Centers for Disease Control and Prevention in Atlanta, has grown dramatically.[62] In FY 1999, HHS received $161 million to begin development of a pharmaceutical stockpile, conduct research into new vaccines, and provide assistance to state and local surveillance systems and laboratories. In FY 2000 the HHS budget rose to $260 million. Unlike all other components of the U.S. domestic preparedness program, the HHS program for biological terrorism preparedness began with a funding request from the executive branch rather than with a congressional earmark.[63]

Policy and Management Challenges of Domestic Preparedness

Since its earliest days, the domestic preparedness program has confronted multiple challenges. The GAO, for example, has criticized it for being badly coordinated, fostering redundancy, and addressing a poorly specified threat.[64] The GAO makes a common mistake, however, in assuming that the reason for these difficulties is primarily the absence of clear and rigorous analysis by the participating executive agencies. In fact, the challenges facing the domestic preparedness program result from the nature of the threat (a technically novel, low-probability, high-consequence attack against a vast and vulnerable country); the peculiar origins of the program (individual congressional earmarks without benefit of a top-down strategic plan); and the structure of

62. In December 1998, the CDC established its Biological Preparedness and Readiness Program (BPRP). Before this, the CDC was only tangentially involved in domestic preparedness for biological terrorism, with no dedicated office or budget. For more information on the BPRP, see www.bt.cdc.gov.

63. President Clinton requested a supplemental appropriation to address the threat of bioterrorism in June 1998. Judith Miller, "Clinton Seeks Additional $300 Million to Fight Bioterrorism," *New York Times,* June 9, 1998, p. A16.

64. GAO, *Combating Terrorism: Spending on Governmentwide Programs Requires Better Management and Coordination;* GAO, *Combating Terrorism: Opportunities to Improve Domestic Preparedness Program Focus and Efficiency;* GAO, *Combating Terrorism: Issues to Be Resolved to Improve Counterterrorism Operations;* and GAO, *Combating Terrorism: Need to Eliminate Duplicate Federal Weapons of Mass Destruction Training,* NSIAD-00-64, March 21, 2000.

American governance (multiple institutions and layers of government sharing powers).

In preparing for WMD terrorism at home, the U.S. government faces six challenges: (1) to define reasonable, measurable preparedness goals; (2) to implement improvements in preparedness amid great technical and institutional complexity; (3) to reduce the uncertainties of a real-life response; (4) to address the legal dimensions of preparedness; (5) to sustain preparedness over time; and (6) to leverage the preparedness program to fulfill multiple government priorities.

DEFINING THE GOALS AND A METRIC FOR MEASURING PROGRESS

To date, the objectives of the U.S. domestic preparedness program have been determined by the bureaucratic requirement to execute a particular legislative mandate.[65] There has been no broad national determination of how well prepared the United States should be for a domestic terrorist attack. This is not surprising given that the program originated from individual legislative earmarks rather than from a strategic plan, which would clearly define the aims of the program and lay out the means to achieve them. The early policy debates over the domestic preparedness program were marked only by widespread agreement that the existing level of U.S. preparedness was too low and needed to be improved. There was virtually no discussion of what level of preparedness the United States should strive for, save the occasional warning that perfect preparedness—and hence invulnerability—was unobtainable. For the purposes of starting the domestic preparedness program, this simple emphasis on beginning the process of improvement was sufficient.

This lack of broad but measurable objectives is unsustainable. It deprives policymakers of the information they need to make rational resource allocations and renders program managers unable to measure genuine progress. It also suggests endlessly escalating program expenditures, because a process whose only goal is to improve from current standing has no logical conclusion.

To address this problem, the U.S. government should develop a statistical index of preparedness that incorporates a range of variables such as quantitative

65. For example, the requirement to train first responders in the nation's 120 largest cities originated not in the Nunn-Lugar-Domenici legislation, but in the now-defunct Senior Interagency Coordination Group (SICG). SICG was established to facilitate coordination among federal agencies involved in providing domestic preparedness support to state and local governments. The figure 120 was based on population and geographic criteria (two smaller cities were added because of their distance from federal response assets). See Department of Defense, *Domestic Preparedness Program in the Defense against Weapons of Mass Destruction*, May 1997, pp. 2, 11–12; and House Committee on National Security, Subcommittee on Military Research and Development, *The Federal*

measures of special equipment, training programs, and medicines, as well as professional subjective assessments of the quality of local response capabilities, infrastructure, plans, readiness, and performance in exercises. This index should go beyond the current rudimentary milestones of program implementation—for example, *X* amount of training and equipment provided to *Y* cities—and seek to capture and condense meaningful indicators of how well a particular city or region could actually respond to a serious chemical or biological weapons attack. A preparedness index would serve three functions. First, the government could use it to measure the preparedness of different parts of the country in a consistent and comparable way, providing a reasonable baseline against which to measure progress.[66] Second, it would assist policymakers in defining the program's ultimate objective. Third, it would allow managers to evaluate the incremental impact of their programs.

A preparedness index would of course be only a statistical proxy for the intangible societal quality we call "preparedness." The term has no agreed definition. Nor can it, because preparedness has meaning only in a specific context—that is, in the aftermath of an incident—because it is a measure of how well prepared one was to deal with an actual incident. Thus the country's preparedness for terrorism can vary enormously with the organizations that become involved and with the nature of the attack, its location, the type of weapon used, and the amount of warning time.

As a by-product of setting goals for the domestic preparedness program, the government will implicitly establish the society's residual level of risk and vulnerability. Implicit determinations of acceptable risk are commonplace in public health and safety regulations, which weigh the costs and benefits of greater levels of social protection.[67] Conscious decisions to allow risk of harm are politically dangerous because of the possibility of extreme outcomes, which, although unlikely, can do extensive and highly visible harm to a concentrated population. Yet a studied decision is essential for sound public management because reducing risk is costly. Reasonable limits must be established because society cannot invest endlessly in lowering the risks it faces. This is especially true when the measures needed to reduce a particular risk involve not

Response to Domestic Terrorism Involving Weapons of Mass Destruction and the Status of the Department of Defense Support Program (Washington, D.C.: GPO, 1998), pp. 31–32.

66. If developed, an index of this kind would have to be classified to avoid calling attention to the country's most vulnerable cities.

67. Examples include Environmental Protection Agency assessments of levels of harmful molecules in the air or drinking water, Occupational Safety and Health Administration standards on workplace threats to employee health, and Federal Aviation Administration and National Transportation Safety Board airplane safety regulations.

only financial outlays but also curtailed freedoms, as is the case with counterterrorism and domestic preparedness. The trade-offs for higher levels of protection against, and preparedness for, domestic terrorism are not only an expense but also an inconvenience that may threaten or appear to threaten peace of mind, aesthetics, public symbolism, privacy, and freedom of movement. This is an abstract idea for the nation as a whole, but it is readily apparent at specific facilities and events. For example, the Atlanta Committee for the Olympic Games made a conscious decision not to search bags at the entry points to Centennial Park—against the recommendation of the security services—because its members believed that searches would undermine the games' friendly atmosphere. Had they decided differently, the small pipe bomb that killed two and injured more than one hundred people on July 27, 1996, may have been discovered before it was detonated.[68]

Finally, the ultimate measure of success for a country's counterterrorism program is the absence of a major terrorist incident. But the lack of terrorist attacks does not mean that preparedness was perfect: It could mean that potential terrorists were deterred, preempted, or persuaded to pursue their aims using nonterroristic means. Conversely, a major act of chemical or biological terrorism might overcome a wholly reasonable and well-implemented preparedness program and result in extensive casualties. Ideally, then, the domestic preparedness program would be judged by its ability to save lives and protect property. Such judgments, however, are impossible until a reasonable baseline of past performance in similar consequence management situations has been established.

coping with enormous technical and institutional complexity

There is no generic template for an operational response to WMD terrorism.[69] An effective response, however, would involve the following technical requirements:

- incident command and communications
- emergency medical treatment
- decontamination of individuals and facilities

68. John Buntin, *Security Preparations for the 1996 Centennial Olympic Games,* Case Study, Part B (Cambridge Mass.: Harvard University, John F. Kennedy School of Government, October 1999), p. 14.

69. As noted earlier, the U.S. government defined two major phases of an operational response to a terrorist incident: crisis management and consequence management. These labels are problematic for several reasons, the most important of which is that there is no clear temporal line between the two phases.

- security and crowd control
- apprehension and arrest of perpetrators
- special weapons and tactics operations
- evidence preservation and criminal prosecution
- special weapons disablement and render-safe operations
- HAZMAT management
- infectious disease surveillance and control
- plume analysis
- mass medical care for victims
- public affairs
- mass transportation and large-scale emergency logistics
- legal affairs

Within these broad categories, the specifics of the incident will determine the proper course of action. For example, communications requirements will depend on the number of agencies responding and the communications equipment they bring with them; the type of weapon used in the attack will dictate the course of medical treatment and decontamination procedures. Leaving aside the details, it should still be clear that a wide range of general-purpose and specialized capabilities will be required to manage a domestic terrorist attack involving a weapon of mass destruction, and especially to minimize its effects.

Across the United States, there are thousands of organizations that might respond to a domestic act of WMD terrorism: law enforcement agencies, fire services, emergency medical teams, public health agencies, the military, private businesses, voluntary nongovernmental organizations, and so on. In a real WMD incident, these agencies will be called on to contribute to the operational response according to their proximity, usefulness, and jurisdiction. The principal goal of the U.S. domestic preparedness program, therefore, is to enhance those operational capabilities that are both important to the task of responding to WMD terrorism and deficient in their current form.[70] This presents a significant analytic problem of understanding the relationship between genuine technical requirements and deficient capabilities. This problem, however, exists in all mission-oriented government services and is thus relatively familiar to the U.S. national security community.

Although the U.S. domestic preparedness program originated, and is funded, at the federal level, the objectives of the program cannot be achieved

70. See Falkenrath, Newman, and Thayer, *America's Achilles' Heel,* pp. 261–336.

solely by pursuing improvements at this level, much less within any one agency. The nation's existing WMD response capabilities are distributed widely and unevenly throughout an extraordinarily complex latticework of functionally organized agencies; levels of government (federal, state, county, and local); and public, private, and nongovernmental actors. These actors have distinct interests, budgetary constraints, and legal authority. They are, for the most part, not hierarchically organized and have overlapping (or even competing) areas of responsibility. In many cases, these agencies and organizations have no history of routine interaction, and sometimes have powerful institutional interests working against cooperation or dealing with a new priority imposed by the national security wing of the federal government.[71]

For the federal government to implement the domestic preparedness program, it must work with and through this maze of domestic agencies. Its overseers and managers must seek to understand the complexity of the program's implementation that results from a unique interaction of technical and institutional factors. The federal government should pay as much attention to the institutional distribution of existing capabilities as it does to the technical requirements of response. It should also focus on improving those capabilities most important to response yet most deficient in their current form. Finally, it ought to avoid the institutional complexity of working with disparate state and local agencies by enacting improvements only in federal capabilities, or only through established channels with lower-level agencies.

REDUCING THE UNCERTAINTIES OF RESPONSE

Preparedness is not an end unto itself, but rather an intermediate objective. The ultimate goal is to conduct an effective response if an act of WMD terrorism occurs. With respect to a contingency as uncommon and unfamiliar as WMD terrorism, there are substantial uncertainties about how prior preparations will translate into actual performance. The U.S. domestic preparedness program should therefore seek to reduce these uncertainties to their achievable minimum.

Three broad types of uncertainty seem like particularly serious obstacles to the domestic preparedness program. The first involves weapons performance. Compared to conventional explosives, weapons of mass destruction—especially biological weapons, which 144 nations have renounced through their ratification of the 1972 Biological and Toxin Weapons Convention—are well understood by very few people. Moreover, the effects of biological weapons

71. For further discussion, see Howitt and Koblentz, "Organizational Capacity and Coordination."

and, to a lesser extent, chemical weapons can be highly unpredictable given their sensitivity to changes in the environment, the method of dissemination, and the physical and immunological protection of the victim.[72] A deeper understanding of the technical characteristics of these weapons has broad national security significance, and should be pursued with support from the domestic preparedness program—with particular emphasis on the performance of improvised weapons against unprotected civilians in urban areas.

A second type of uncertainty in domestic response operations is warning time, which is a key determinant of the readiness and preparation that response agencies are able to achieve before an incident occurs. The government must prepare for the full range of contingencies—from a planned high-risk event, such as the Olympic Games, to a no-notice attack, such as the bombing of the Alfred P. Murrah federal building in Oklahoma City. The government should increase its efforts to acquire early warning of potential WMD terrorist threats and thus reduce the likelihood of the most demanding no-notice scenarios. This is of course an extremely challenging but also vitally important task. The U.S. government currently relies on investigations of and intelligence gathering against groups that are known or believed to present a terrorist threat, which it conducts systematically and often effectively. What the U.S. government does not do systematically, however, is broad-based sampling to identify potential threat groups—particularly domestic groups—that have not made themselves known. One way to accomplish this would be to establish a system for gathering and processing data on the sale of materials and equipment that could be used to fabricate a weapon of mass destruction.[73]

The third and probably most significant form of uncertainty in an operational response to a WMD terrorism incident is the attack's psychological impact. We have little basis on which to predict the behavior of the public to a chemical or biological attack. Will people remain calm and do as instructed, or will they panic and act irrationally?[74] This concern also applies to the personnel involved in the response operations, many of whom will be civilians with no special training in chemical or biological defense. It is self-evident, however, that the behavior of the public will be a critical determinant of response effectiveness in a major incident of chemical or biological terrorism, which

72. See, for example, Stockholm International Peace Research Institute, *The Problem of Chemical and Biological Warfare,* Vol. 2, *CB Weapons Today* (New York: Humanities Press, 1973).
73. See Falkenrath, Newman, and Thayer, *America's Achilles' Heel,* pp. 277–284.
74. A terrorist attack may also cause unexpected departures from normal activities that could hamper response activities, such as cessation of airline service.

gives the media great importance in a response. The behavior of media outlets may also be unpredictable, however. Moreover, given current uncertainty about chemical and biological weapons performance, the authorities may not know what to instruct the public to do to mitigate the overall severity of an attack.[75] If perceived by the public, this uncertainty may exacerbate people's panicked reactions. The domestic preparedness program should therefore attach high priority to developing some means of analyzing, modeling, and predicting the reactions of the public in the event of an act of WMD terrorism, and to integrate this improved understanding into response plans.

One technique for reducing the uncertainties of response is to conduct exercises and simulations, which are already a key part of the domestic preparedness program. The federal government has sponsored many counterterrorism and consequence management exercises since 1995, and they are unambiguously valuable. The exercises have revealed critically deficient capabilities, inadequate response plans, and serious intergovernmental conflicts that would likely emerge in a real situation. But exercises are not a panacea to the uncertainties of response. Even the most ambitious counterterrorism exercise ever staged—the TOPOFF exercise held in May 2000, which simulated a chemical attack in Portsmouth, New Hampshire; a biological attack in Denver, Colorado; and a radiological attack in Prince George's County, Maryland—cannot replicate the confusion, fear, and possible panic that incidents of this magnitude would unleash across the nation, because injecting greater realism into exercises would pose genuine public safety risks and also would cause unreasonable interruptions of normal life.[76] Consequently, although exercises and simulations should remain an integral part of the domestic preparedness program, their significance should not be overestimated.

MANAGING THE LEGAL DIMENSIONS OF PREPAREDNESS

Preparedness is not simply a function of a nation's operational response capabilities. In democracies, the legal authority to use these operational capabilities in a manner that is both effective and respectful of a society's values is also an

75. For instance, if the authorities cannot define the boundaries of the weapon's effects (usually assumed to be a plume), or do not correctly understand the physical properties of the weapon's agent, then they will not be able to advise the public to stay at home or flee.

76. For more information about the TOPOFF exercise, see Thomas Inglesby, Rita Grossman, and Tara O'Toole, "A Plague on Your City: Observations from TOPOFF," *Biodefense Quarterly,* Vol. 2, No. 2 (September 2000); Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction [The Gilmore Commission], *Second Annual Report to Con-*

element of preparedness.[77] To date, the U.S. domestic preparedness program has focused almost exclusively on enhancing the capability aspect of the problem. The only legal aspect of preparedness that has received any sustained attention has been the role of the military in domestic law enforcement, which is proscribed by the Posse Comitatus Act of 1878.[78] Despite the frequency with which the issue of Posse Comitatus has been raised, however, it is not a particularly significant legal issue for the domestic preparedness program because of its narrow restrictions, and because even these restrictions may be waived in an emergency if the attorney general lodges a formal request with the secretary of defense for an expanded military role in support of civilian agencies.[79]

The more important legal problems facing the domestic preparedness program concern the powers that the government may want to exercise while managing a domestic incident of WMD terrorism. What these legal powers will be is not precisely known because the country has had so little real experience with WMD terrorism, and because the question has not been carefully examined by the government or a qualified nongovernmental organization. Through the use of hypothetical simulations and scenarios, it is possible, however, to generate a rough list of the legal authorities that response agencies will want to have. One such heuristic exercise conducted in December 1999 yielded a remarkably long list of powers that responding agencies *might* desire in managing a major domestic biological weapons attack. This list included the authority to take the following actions:

- impose a state of emergency, including curfew
- compel people to remain in one location or move to another, including temporary detention
- use the military for domestic law enforcement, population control, and mass logistics
- seize community and private property, such as hospitals, utilities, medicines, vehicles, and transit centers, and compel the production of certain goods

gress (Washington, D.C.: RAND, December 2000), appendix L, URL; and www.ojp.usDoJ.gov/osldps/exer_topoff.htm.

77. I am indebted to Philip Heymann for this point.

78. Posse Comitatus Act, U.S. Code (U.S.C.) 18, sec. 1385. For more information, see Charles Doyle, *The Posse Comitatus Act and Related Matters: The Use of the Military to Execute Civilian Law,* Congressional Research Service, September 2, 1995; and Maj. Craig T. Trebilcock, U.S. Army, "The Myth of Posse Comitatus," *Journal of Homeland Defense,* October 27, 2000, http://www.homelanddefense.org.

79. The status is Emergency Situations Involving Chemical or Biological Weapons of Mass Destruction, U.S.C. 10, sec. 382.

- force individuals to undertake decontamination procedures, take medicines, or be quarantined
- censor and control the media
- liberalize standards for conducting searches and seizures
- dispose of deceased individuals
- compel civilian public servants to work
- waive regulatory requirements on the use of certain pharmaceuticals[80]

Although some of these authorities are already available to government agencies, they are confusingly arrayed across hundreds of often archaic federal and state laws.[81] Also, many of these authorities, even those contained in existing legislation, contradict basic and cherished principles of American civic life: freedom of speech and association; the right to privacy; the prohibition against unreasonable searches and seizures; the freedom of movement; protection against detention without criminal basis; the prohibition on government seizures without just compensation; and the federalist principle of states' rights. No reasonable person wishes to see any of these principles sacrificed, but some restrictions may be necessary to save lives.

The importance of the legal dimension of domestic preparedness arises from the dilemma that this situation creates for the government officials in charge of response operations. In a domestic WMD terrorism incident, these individuals may be forced to choose between limiting their actions to those that are unambiguously authorized or going beyond their explicit authority with additional actions that they regard as necessary for minimizing casualties. In the former case, the risk is that innocent people will suffer harm that could have been prevented. In the latter case, violence may be done to basic principles held dear by society as a whole, and the responsible government officials may be censured by the public, their superiors, or the courts for taking actions that they regarded at the time as in the public interest. Managing the legal dimension of domestic preparedness involves reconciling these risks in advance and in a manner that maximizes the government's ability to mitigate the physical effects of a real act of WMD terrorism.

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80. See Juliette N. Kayyem, "Preparing for a Biological Terrorism Event: Finding the 'Right' Law," Discussion Paper (Cambridge, Mass.: Harvard University, John F. Kennedy School of Government, ESDP, forthcoming).
81. See Laura K. Donohue and Juliette N. Kayyem, "Federalism and the Battle over Counterterrorist Law: State Sovereignty, Criminal Law Enforcement, and National Security," Discussion Paper (Cambridge, Mass.: Harvard University, John F. Kennedy School of Government, ESDP, forthcoming).

Predicting how individual government decisionmakers would react if confronted with this choice is impossible. Because the U.S. government regards the threat of domestic WMD terrorism as sufficiently serious to justify major capabilities enhancements, however, it seems clear that the government should also be working to eliminate the uncertainty in how these capabilities are used in the event of a genuine attack. In other words, the country should "stockpile authority" as well as capability.

This effort should proceed in several steps. First, the U.S. government should undertake a systematic analysis of government actions that might be desired in resolving or managing the consequences of a domestic incident of WMD terrorism. Second, the government should determine whether the authority to take these actions is available, and if so where it is located (i.e., in federal law or in the law of specific states) and under what conditions it may be exercised. These authorities and their triggering conditions should then be made consistent across the country through new legislation focused on the exigencies of domestic preparedness. This new legislation should specify not only the authorities that may be exercised in a real crisis and their triggering conditions, but also the procedure by which these authorities may be triggered, their maximum duration, and the procedure used to rescind them after the crisis has ended.

SUSTAINING PREPAREDNESS

Domestic preparedness for WMD terrorism began to receive strong financial and rhetorical support from the federal government in the mid-1990s, but there is a real risk that the improvements put in place during this period will not be sustained. The equipment purchased may grow obsolete and inoperable. The training provided may be forgotten, lost to turnover, or not offered to new public servants. The plans developed in exercises may become outdated and eventually be forgotten. If the capability enhancements of the domestic preparedness program are allowed to deteriorate in any of these ways, then the program will be looked back on as a great squandering of federal resources, even as the United States sinks back to lower levels of readiness for WMD terrorism.

Although the federal government has been willing to pay for initial improvements in the specialized training and equipment available to state and local agencies, it is not certain that the federal domestic preparedness budget will evolve into an ongoing support mechanism for the operation and maintenance of these new capabilities. At some point, federal decisionmakers may

decide that WMD terrorism does not pose a major threat to the country; or they may choose to focus their resources solely on developing federal capabilities; or they may conclude that the federal responsibility to provide domestic preparedness assistance to state and local agencies has been met. If so, then it will be up to state and local governments to devote the budgetary resources to sustain these heightened capabilities. Because state and local agencies operate on tight budgets, however, their willingness to accept ongoing responsibility for a set of specialized capabilities that are of much greater interest to the federal government than to their tax-paying constituents is not guaranteed.[82] Domestic preparedness involves great expense but generates no revenue, making it doubtful that state and local governments will be willing to bear the costs associated with it over the long term.[83]

Nor is the problem strictly financial. Individuals and institutions tend to neglect capabilities that they use infrequently or that are peripheral to their core mission. For example, a complicated piece of equipment that can detect the presence of a chemical or biological agent, but nothing else, is unlikely to be used very often by a local firefighter or police officer, and is thus unlikely to be properly maintained. Similarly, busy public servants—including police officers, firefighters, emergency medical technicians, and public health officials—are probably less likely to take refresher training courses in skills that they will probably never use. The vast majority of cities and regions in the United States will never experience WMD terrorism, and public safety officials understand this. Sustaining the heightened preparedness sought by the federal government is therefore a significant challenge.

A strategy for sustaining preparedness should involve three basic components. First, and perhaps most important, the federal government should emphasize "dual-use" forms of assistance. That is, the federal domestic preparedness program should provide its strongest support for forms of technical assistance that simultaneously improve state and local agencies' abilities to deal with WMD terrorism as well as their everyday responsibilities. The federal government should resist the temptation to create special systems for terrorism, and should instead integrate counterterrorism and preparedness

82. This behavior is rational because (1) state and local governments see the federal government as responsible for national security; and (2) the odds of an attack within the geographic domain of any particular state or locality are a fraction of the odds of an attack within the vast geographic domain of the federal government.
83. For a discussion of this dynamic, see Howitt and Koblentz, "Organizational Capacity and Coordination."

programs into the existing all-hazard systems for emergency management and disaster response. The resources needed to reduce casualties and overall damage from weapons of mass destruction should be housed in agencies and organizations that have more commonplace uses for those skills and technologies, thereby linking counterterrorist preparedness to everyday operations. Resources (equipment, manpower, training, and coordination) to handle a chemical weapons attack should be maintained by HAZMAT units, and the training to identify a biological attack should reside with hospitals and public health officials. This emphasis on dual-use assistance can help to ensure that capabilities created by the domestic preparedness program remain strong.[84]

Second, the federal government should cooperate with state and local governments to ensure that the initial capability enhancements provided by the federal government will be sustained. This should involve some explicit compact, perhaps embodied in legislation, between the federal government and state and local governments on their respective responsibilities for building and maintaining preparedness.

Third, and as part of this compact, the federal government should assume partial but ongoing responsibility for funding the operations and maintenance of domestic preparedness training, equipment, and procedures in state and local agencies. This recommendation is unlikely to be met with great enthusiasm in Washington, but it is unrealistic to expect state and local governments to provide the necessary levels of financial support.

leveraging domestic preparedness to address federal priorities

The new and improved capabilities supported by the domestic preparedness program may never be needed. This should of course be regarded as a success, not a failure, given that the highest priority of U.S. counterterrorism policy is to prevent attacks of this kind. The federal government recognizes the very low probability of an act of WMD terrorism. Thus it deliberately links improvements to the domestic preparedness program to other government priorities. There should be a concerted effort to make domestic preparedness a "no regrets" policy in which improvements to the program are also improvements to the nation's overall security structure, regardless of whether WMD is used against the United States.

84. The difficulty with this approach is that WMD preparedness is in some ways fundamentally different from the everyday activities it is to be paired with, which presents the possibility that such an attack would not be handled in the emergency manner required. For a more detailed discussion of the possibilities and difficulties with complementarity, see ibid.

Four government priorities can benefit from an appropriately managed domestic preparedness program. The first is to correct failings in the public health sector, particularly in the systems for dealing with infectious disease. The United States has allowed its basic public health infrastructure to deteriorate over the last several decades.[85] U.S. systems for identifying and controlling outbreaks of infectious disease are particularly weak, often lacking even rudimentary computer and telecommunications capabilities. The federal initiative to prepare the country for a biological weapons attack presents a significant opportunity to rebuild and modernize systems for dealing with the far more common and destructive threat of naturally occurring infectious disease.

Local emergency management is a second area that can benefit from leveraging domestic preparedness. The process of working with the federal government to conduct counterterrorism exercises and to develop new response capabilities has revealed a number of intergovernmental problems in major metropolitan areas, and at the same time has provided some impetus to resolve these problems. For instance, through the domestic preparedness program, more people have become aware of the importance of adhering to a common command-and-control system in major, multijurisdictional operations. The accepted standard for this is the Incident Command System (ICS), which is already in fairly wide use but is receiving further support from the domestic preparedness program.[86] Likewise, most regions already have mutual aid agreements (which allow public safety agencies, usually fire departments, to respond across jurisdictional lines); the domestic preparedness program can help encourage local governments without such agreements to create them. Finally, the program, and especially the exercises it conducts, have drawn attention to the incompatibility of many response agency communications systems, which can be a serious problem in large-scale operations.[87] As a

85. The United States permitted this to happen because of a complacency after World War II bred from misplaced confidence in the ability of modern medicine to control infectious disease through antimicrobial drugs and proper hygiene. As a result, the American public health system was ill-prepared to cope with the new infectious diseases that emerged in the 1980s, such as HIV or hanta virus, or with the old diseases that had grown resistant to antimicrobials. A second reason appears to have been the gradual weakening of American communities and the concomitant rise in American individualism and antigovernmentalism after World War II. See Laurie Garrett, *Betrayal of Trust: The Collapse of Global Public Health* (New York: Hyperion, 2000).

86. For a description of the Incident Command System, see Hank Christen and Paul Maniscalco, *The EMS Incident Management System* (Upper Saddle River, N.J.: Prentice Hall, 1998).

87. The lack of interoperable communications systems caused severe difficulties for law enforcement and emergency medical teams responding to the shootings at Columbine High School in April 1999. See Jefferson County Sheriff's Office, *Report on the Columbine High School Shootings,*

result, the Department of Justice has developed and fielded a new system for integrating the two-way communications of multiple agencies that otherwise would not be able to talk to each other. Practical improvements of this sort, which have value across the full range of major emergencies that a city might face, should continue to receive strong support from the domestic preparedness program.

Third, some aspects of the domestic preparedness program may be useful in the conduct of military operations abroad. The military clearly has a role to play in major domestic response operations to WMD terrorism. Indeed it is currently developing its own specialized capabilities for managing chemical and biological incidents. These capabilities are obviously relevant to the military's core mission of war fighting, given that virtually all of the states against which the U.S. military might be called upon to fight also possess chemical or biological weapons, or both. Thus, as the Department of Defense defines its mission vis-à-vis U.S. domestic preparedness, it should do so with an eye toward developing capabilities that are also sufficiently robust and numerous that they could be used in foreign military operations.

Finally, many of the capabilities developed as part of the U.S. domestic preparedness program can and should be integrated into U.S. plans for providing emergency assistance to foreign governments during major crises and disasters.[88] The United States is the only country in the world making a serious, sustained effort to prepare for domestic incidents of WMD terrorism, especially those involving chemical or biological weapons. In the event of a major chemical or biological weapons attack somewhere in the world, the U.S. government will feel strong pressure to offer emergency assistance, especially if the attack is against a friend or an ally. Moreover, the U.S. national security community will probably want to be involved fully in the response to, and investigation of, the attack because it is likely to assume that a chemical or biological threat to one state could easily become a threat to America. The agencies involved in the domestic preparedness program should therefore accept that the response capabilities they are developing—the trained personnel, special equipment, and stockpiles of medicine—could be sent abroad as part of a U.S. assistance effort and should plan accordingly.

April 20, 1999, CD-ROM; and Susan Rosengrant, "The Shootings at Columbine High School: Responding to a New Kind of Terrorism," Case Study (Cambridge Mass.: Harvard University, John F. Kennedy School of Government, forthcoming).

88. The Department of State is the lead federal agency for responding to terrorist incidents outside of the United States. In the event of such an incident, an interagency foreign emergency support team would be deployed to manage the crisis. An unclassified summary of PDD-39 is available at www.fas.org/irp/offdocs/pdd39.htm.

Conclusion

Since 1996 the federal government has worked to augment the United States' ability to mitigate the consequences of a chemical or biological weapons attack at home. This unprecedented domestic preparedness program grew rapidly in its first five years. The program has been motivated by a heightened assessment—widely accepted in Washington—of the threat of massively destructive terrorist attacks against the U.S. homeland, and has been championed mainly by national security officials and terrorism experts. Conceptually, domestic preparedness is a subset of U.S. counterterrorism. As a practical matter, however, the program builds on the existing capabilities of the U.S. disaster management system. Because state and local governments play a larger role in disaster management than does the federal government, domestic preparedness has involved the use of federal resources to improve the operational capabilities of state and local agencies.

The domestic preparedness program faces numerous challenges. The program is organizationally fragmented and suffers from some duplication and generally poor coordination. It has no measurable performance objectives. The federal government has articulated no ultimate preparedness goal for the country, and has no mechanism for prioritizing investments in particular types of capabilities in specific locations. Because of the lack of experience with WMD terrorism, there is great uncertainty about how an actual response to a WMD incident will or should unfold. The legal dimensions of preparedness have to date largely been ignored. Federal, state, and local agencies may not sustain their near-term improvements in preparedness over the long term. And government agencies have missed several opportunities to leverage the domestic preparedness program to achieve other public priorities.

This article has argued that there are two fundamental causes of these problems. First, the domestic preparedness program lies on the seams of American government: It is a domestic program that may have to deal with an international threat; it is a national security (specifically, counterterrorism) program that mainly involves enhancements of the disaster management system; and it is a federal program that requires capabilities to be produced by state and local agencies.[89] For these reasons, the authorities, capabilities, and resources needed to implement domestic preparedness are scattered widely and con-

89. On the effects of institutional fragmentation on U.S. defense program implementation, see Ashton B. Carter, "Keeping the Edge: Managing Defense for the Future," in Carter and White, *Keeping the Edge,* pp. 14–19.

fusingly across multiple bureaucracies spanning several levels of government. Second, the executive branch has not articulated a viable multiyear, multiagency plan for the domestic preparedness program. Because of this failure, the program has evolved through a series of uncoordinated legislative initiatives, mostly in appropriations bills. These two factors—the intragovernmental dispersal of the program and its ad hoc legislative origin—have made it extremely difficult for the federal government to coordinate and direct the program, and for all involved agencies to implement it smoothly.

Preparing for WMD terrorism at home is essentially a no-win proposition. Either there will not be an attack—and the program will seem increasingly nonsensical—or there will be an attack—and the value of the program will be tested amid the suffering of innocent people. In the absence of an attack, critics will call it wasteful. In the aftermath of an attack, these critics will fall silent, but others will argue that the program itself—and especially the publicity surrounding it—are to blame for giving terrible new ideas to terrorists everywhere.