Third Annual Report to the President and the Congress of the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction

III. FOR RAY DOWNEY

15 December 2001

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THIRD ANNUAL REPORT TO THE PRESIDENT AND THE CONGRESS OF THE ADVISORY PANEL TO ASSESS DOMESTIC RESPONSE CAPABILITIES FOR TERRORISM INVOLVING WEAPONS OF MASS DESTRUCTION

III. FOR RAY DOWNEY

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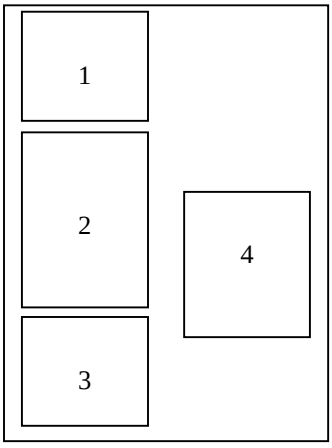

1— A New York City ambulance burns in the street near the base of the World Trade Center towers. It was one of hundreds completely destroyed in the attacks. Photo by Shannon Stapleton/Reuters

2— Arlington County Fire Department rescue team at the Pentagon. Photo by Jocelyn Augustino/FEMA News Photo

3—Firefighters, rescue workers, and military personnel unfurl the American flag in anticipation of a visit to the Pentagon crash site on September 12 by President Bush. Photo by Jocelyn Augustino/FEMA News Photo

4— Rescue workers remove a man from the World Trade Center tower in New York City shortly after the attacks on September 11, 2001. Victims of the attack – many suffering from extensive burns – were transported to hospitals in New York City within minutes after two planes slammed into the twin towers. Photo by Shannon Stapleton/Reuters

THE ADVISORY PANEL TO ASSESS DOMESTIC RESPONSE CAPABILITIES FOR TERRORISM INVOLVING WEAPONS OF MASS DESTRUCTION

December 15, 2001

To Our Readers:

The terrorist attacks on September 11, 2001, have become a defining moment for the future of the United States and the rest of the civilized world. Today, we continue to mourn for the thousands of victims and their families. Yet, in our grief also lies the hope of a more secure future. We have an opportunity and an obligation to help to define that future. To that end, I am pleased to provide the *Third Annual Report of the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction* to support the United States in its leadership role in combating the threat posed by terrorists.

America has responded to this assault on our values and character with steadfast determination. In our communities, states, and at the federal level, government, the private sector, and ordinary citizens have mobilized and begun to work together on many fronts with a sense of renewed determination. Our shared goal is protecting every American and others beyond our borders from the lawlessness of terrorists. A robust coalition of international partners stands united in military, law enforcement, and economic actions designed to prevent further attacks and to identify, arrest, and prosecute those who committed these acts and continue to threaten people around the world. Those who govern this nation have displayed the best in leadership, as they have sought to protect and maintain our fundamental civil liberties and constitutional values. Collectively, we know that the underpinnings of our democracy remain strong but also make it impossible to secure our nation completely. It is the inherent risk we face in our uniquely American way of life. Accordingly, our focus remains on protecting ourselves to the extent that we can within the framework of a free and open society and on ensuring our ability to respond if more attacks occur.

Our mission is urgent and clear: We must continue to bolster our capability to thwart terrorists wherever and whoever they are. Today, our panel presents its Third Annual Report to the President and the Congress as our contribution to the war against terrorism. This effort builds on findings and recommendations in our First and Second Annual Reports delivered in 1999 and 2000. It reflects a national strategic perspective that encompasses the needs of all three levels of government and the private sector. It seeks to assist those who are dedicated to making our homeland more secure. We recommend:

- ✓ *Empowering state and local response* by ensuring the men and women on the front line of the war against terrorism inside our borders have the tools and resources needed to counter the murderous actions of terrorists;
- ✓ *Enhancing health and medical capacities*, both public and private, to help ensure our collective ability to identify attacks quickly and correctly, and to treat the full scope of potential casualties from all forms of terrorist attacks;

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- ✓ *Strengthening Immigration and Border Controls* to enhance our ability to restrict the movement into this country, by all modes of transportation, of potential terrorists and their weapons and to limit severely their ability to operate within our borders;

- ✓ *Improving Security Against Cyber Attacks* and enhancing related critical infrastructure protection to guard essential government, financial, energy, and other critical sector operations against attack; and

- ✓ *Clarifying the Roles and Missions for Use of the Military* for providing critical and appropriate emergency response and law enforcement related support to civilian authorities.

The attacks of recent weeks have caused human and physical scars that will be with us forever. Our nation, however, remains strong and resilient. Our collective call is to continue the momentum to secure our homeland and protect our citizens. While there is more work to be done, there is no question that we will be successful. America's strength is in its people, our leaders, and our collective commitment, especially during times of crisis.

We dedicate this report to our fellow panel member and good friend, Chief Ray Downey. Our loss is tempered by the extraordinary opportunity that we had in being informed and counseled by Ray during the past three years. We therefore present our recommendations with a sense of profound commitment to Ray and all the other victims, that they will not be forgotten and that their loss will not have been in vain.

Sincerely,

James S. Gilmore, III
Governor of Virginia
Chairman

IN MEMORIAM

On September 11, 2001, at a few minutes after 10 o'clock in the morning, Ray Downey, chief in charge of Special Operations Command, Fire Department of the City of New York, perished in the collapse of the North tower of the New York World Trade Center. Although the impending disaster was obvious following the prior collapse of the South tower, and with fearless disregard for his own personal safety, Ray stayed at his post with his people, all doing their job.

Ray served as a dedicated member of the Advisory Panel during its entire three-year tenure, bringing insightful first-responders' perspectives and consistently providing invaluable counsel based on his years of training, unequaled leadership, and exceptional experience in the field.

It is with increasing humility, but with a firm sense of our special privilege and high honor, that we dedicate this report to the memory of our great colleague and good friend, Ray Downey.

RAYMOND MATTHEW DOWNEY, SR.

Joined the Fire Department of the City of New York as a regular firefighter in 1962.
Promoted to officer rank in 1972.
Named commander of several fire companies.
Served as fire department Incident Commander for the 1993 World Trade Center attack.
Elevated to battalion chief in 1994.
Assigned as Chief of Rescue Operations in 1995.
Named FDNY Deputy Chief and Chief-in-Charge, Special Operations Command in 2000.
Married to Rosalie Princiotta Downey, his wife of almost 40 years.
Father of five children—two are New York City firefighters—and seven grandchildren.
Trained and mentored firefighters and other responders nationwide.

A nationally-recognized leader, author, and lecturer on rescue, collapse operations, and terrorism emergency response.
Responded to the call for help in Oklahoma City, Atlanta, and other disasters outside his home jurisdiction.

The most decorated firefighter in the entire New York Fire Department—21 times for valor.

Ray Downey

Husband . . . Father . . . Patriot . . . Hero . . .

Friend

And in the final, most courageous moments of his duty-filled life . . .

Brother to all Humanity

CONTENTS

EXECUTIVE SUMMARY

The tragic attacks of September 11, 2001, the subsequent anthrax attacks, and persistent threats clearly demonstrate the importance of continuing to prepare our nation to counter more effectively the threats of terrorism. These attacks underscore the urgency by which we must act to implement fully a comprehensive national approach to preparedness.

The Advisory Panel began its work in 1999 with an in-depth consideration of the terrorist threats faced by the United States. We have continued to analyze and deliberate the issues and to offer recommendations that we believe will better prepare the United States to deal with such threats.

To that end, this third annual report represents three years of focused deliberation and cumulative recommendations. Because each set of recommendations builds on the ones contained in the previous year's report, this Executive Summary encapsulates the recommendations in the second report and a brief explanation of those contained in the full third annual report.

SECOND ANNUAL REPORT

The capstone recommendation in the second report was the need for a national strategy: ***The Advisory Panel recommends that the next President develop and present to the Congress a national strategy for combating terrorism within one year of assuming office.*** We identified characteristics essential for an effective strategy: the strategy must be truly national in scope, not just for the Federal level; it should encompass the full spectrum of deterrence, prevention, preparedness, and response—domestic and international; domestic programs should be fully coordinated with State and local officials; the strategy should build on existing emergency response systems; it should address issues of intelligence, law enforcement, fire services, emergency medical services, public health, medical care providers, emergency management, and the military; and it must be fully resourced and based on measurable performance.

In that second report, we recommended improvements to the Federal structure to help solve the broad strategic challenge of bringing together numerous other Federal agencies under a comprehensive strategy and of improving coordination with States and localities: ***We recommend the establishment of a senior level coordination entity in the Executive Office of the President.*** Among other functions, we recommended that the office be given certain authority over Federal programs and agency budgets directly related to combating terrorism.

We also determined that there needs to be a focal point in the Congress to which the Administration can present its strategy and supporting plans, programs, and budgets, as well as a legislative "clearinghouse" where relevant measures can be considered: ***We recommend the establishment of a Special Committee for Combating Terrorism—either a joint committee between the houses or separate committees in each house—to address authority and funding, and to provide Congressional oversight for Federal programs and authority for combating terrorism***.

In conjunction with these structural recommendations, we made a number of recommendations addressing functional requirements for the implementation of an effective strategy for combating terrorism, specifically designed to:

- Enhance intelligence, threat assessments, and information sharing
- Foster better planning, coordination, and operations at all levels
- Enhance training, equipping, and exercising
- Improve health and medical capabilities
- Promote better research and development and the creation of national standards

RECOMMENDATIONS IN THE THIRD ANNUAL REPORT

For the past year, we have focused on functional challenges to protecting the United States against terrorism in five specific areas: State and Local Response; Health and Medical Capabilities; Immigration and Border Control; Security Against Cyber Attacks; and Roles and Missions on the Use of the Military. We chose these issues because they need the most attention in order to implement an effective national strategy.

Empowering State and Local Response

The Advisory Panel commissioned a national survey to help us understand the needs and perceptions of State and local responders for terrorism preparedness, especially in connection with Federal programs. Survey results substantiated our view that State and local entities need threat assessments and better intelligence on potential terrorist activities. ***We recommend that agencies of the Federal government increase and accelerate the sharing of terrorism-related threat assessments and intelligence with appropriate State and local officials and response organizations.***

More effective response will be achieved not by creating new entities or processes but by enhancing existing response systems through all-hazards training and equipment for such response organizations. Therefore, ***we recommend that Federal agencies design related training and equipment programs as part of all-hazards preparedness.***

In most cases, Federal programs are designed to provide training and equipment support on a "one-shot" basis. But equipment requires spare parts and maintenance components, as well as replacement mechanisms, and refresher and cyclical training is a key component of preparedness. ***We recommend that related Federal training and equipment programs be redesigned to include sustainment components.***

Local and State jurisdictions—those attacked and others who have been on high alert—have borne the brunt of increased fiscal outlays for their response entities. ***We recommend that the Congress increase the level of funding to States and local government for combating terrorism,*** especially for the "incremental" or "exceptional" costs of combating terrorism beyond those normally required for public health and safety.

Federal grant programs for terrorism preparedness are uncoordinated and burdensome. Variations in program requirements put an undue burden on local – particularly rural and volunteer – responders. Federal agencies that provide assistance directly to localities, without prior coordination with State entities, limit the ability of States to set comprehensive statewide priorities and to ensure a more effective allocation of resources. Therefore, ***we recommend consolidating information and application procedures for Federal grant programs for terrorism preparedness in the Office of Homeland Security and that all funding and grant programs be coordinated through the States.***

Volunteers, especially those in fire services and pre-hospital emergency medical services (EMS), often cannot participate in training programs during normal working hours because of other employment commitments. Therefore ***we recommend designing and scheduling Federal preparedness programs so that first responders, particularly those in volunteer-based fire and EMS organizations, can participate.***

Lack of awareness of important Federal preparedness programs may inhibit the preparedness of State and local organizations. ***We recommend that the Office of Homeland Security serve as a clearinghouse for information about Federal programs, assets, and agencies with responsibilities for combating terrorism.***

State and local survey responders prefer that the military perform such supporting roles as maintaining order and providing security and logistics support. Federal response assets – including the military – need to be trained to operate within the Incident Command System (ICS). ***We recommend that Federal military response assets be configured to support and reinforce existing State and local organizational structures and emergency response systems.***

Improving Health and Medical Capabilities

The nation's health and medical systems, and their related public and private components, are under-prepared to address the full scope of potential terrorist attacks.

In our second report, we recommended that a new office in the White House establish a national advisory board of public health officials and medical care providers to assist in developing a national strategy. The American Medical Association (AMA) has begun to address our recommendation by calling for the creation of a national public-private entity to develop medical education on disasters, including terrorism; information resources on such disasters; and model plans. The entity must also address timely and adequate reporting of diseases. The AMA report also encourages State, local, and specialty entities of the Federation of Medicine to become more involved in response planning, training, and education. ***We recommend that Federal, State, and local entities, as well as affected private-sector organizations, fully implement the AMA "Report and Recommendations on Medical Preparedness for Terrorism and Other Disasters."***

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) also responded to our call for greater health and medical preparation, publishing a standard that requires accredited facilities to establish and maintain a comprehensive plan for response to disasters and emergencies, including terrorism, within an all-hazards framework. ***We recommend that medical systems fully implement the JCAHO Revised Emergency Management Standard.***

The Centers for Disease Control and Prevention (CDC) has developed a plan for preparing public health agencies for terrorism. The plan includes enhancing epidemiologic capacity to detect and respond; establishing surveillance for critical biological and chemical agents; enhancing training, communication and public education programs; and encouraging research. ***We recommend that the Congress provide sufficient resources to the U.S. Department of Health and Human Services (DHHS) for full implementation of the "Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response" of the CDC.***

The CDC has also developed a "collaborative partnership" of various Federal agencies, public health and emergency management entities, professional associations, and academia. The purpose is to develop critical capacity in the public health laboratories, foster appropriate linkage with clinical laboratories, and integrate these capacities to enhance the timeliness of the laboratories' overall emergency preparedness and response. ***We recommend that the Congress provide sufficient resources to the DHHS for full implementation of the "Laboratory Response Network for Bioterrorism" of the CDC.***

The CDC has also created a network specifically designed to improve communications within the public health community and with other emergency response entities. We encourage the further development and fielding of this and other communication networks, such as Epi-X and Pulsenet, to address the need for better vertical and horizontal communications, especially for chemical, biological, radiological, and nuclear threats. ***We recommend that the Congress provide sufficient resources to the DHHS for full implementation of the CDC Secure and Rapid Communications Networks.***

There is also a need to improve training and planning—especially for EMS and in rural communities—for better communication and coordination with other nonmedical response entities. ***We recommend that the DHHS, in coordination with the Office of Homeland Security, develop models for medical responses to a variety of hazards at Federal, State, and local levels and in conjunction with the private sector.***

The Federal community needs to support State and local EMS provider organizations for professional development, evaluation and planning processes, and other issues of EMS systems and operations. No existing Federal office is responsible for addressing all of these issues. Therefore, ***we recommend that the DHHS reestablish a pre-hospital Emergency Medical Services program office. We also recommend that the Secretary of Transportation direct the National Highway Transportation Safety Administration's Office of Emergency Medical Service to revise the existing Emergency Medical Technician (EMT) and Paramedic National Standardized Training Curricula and corresponding Refresher Curricula.***

Exercises are critical—to determine the adequacy of training; to test and improve the plans and capabilities of individual hospital facilities; to stress coordination between health and medical entities and with the other emergency response agencies; and to span the range of response entities and threats. ***We recommend that the Congress increase Federal resources for exercises informed by and targeted at State and local health and medical entities.***

Limited research, development, and production capability for certain vaccines is one of the largest hurdles currently facing military and civilian responders as they prepare for biological threats. The private sector is unlikely to be the answer to some of the more difficult vaccine issues. ***We recommend the establishment of a government-owned, contractor-operated national facility for the research, development, and production of vaccines and therapeutics for specified infectious – especially contagious – diseases.***

The availability of vaccines and other critical medical supplies is likely to make a dramatic difference in the level of casualties that result from an attack. The Department of Veterans Affairs (DVA) has certain responsibilities for stocking such supplies; the CDC and other DHHS entities have other responsibilities, but adequate coordination and planning for the execution of

those responsibilities has not occurred. ***We recommend that the Office of Homeland Security, with advice from its related national advisory board and in coordination with the DHHS and DVA, review and recommend appropriate changes to plans for the stockpile of vaccines and other critical supplies.***

Many areas of health and medical research and development require special attention—surveillance, detection, identification, forensics, and psychological considerations. ***We recommend that the Office of Homeland Security, on the advice of its related national advisory board, and in coordination with the responsible Federal agencies, develop a comprehensive plan for the full spectrum of medical and health research for terrorism-related medical issues, including the psychological repercussions of terrorism and pre-hospital interventions.***

It has been more than five years since a comprehensive inventory of medical capacities under NDMS has been conducted. There continues to be difficulties with the structure, location, and capabilities of MMRS entities and the Disaster Medical Assistance Teams. ***We recommend that the Secretary of HHS, in conjunction with the Office of Homeland Security and its related national advisory board, conduct a thorough review of the authorities, structures, and capabilities under the Metropolitan Medical Response System (MMRS) and National Disaster Medical System (NDMS).***

Policymakers and response entities face thorny issues, such as quarantine, containment, isolation, mandatory vaccination and other prescriptive measures, and scope of practice and other legal issues, which create the potential for conflicts among local, State, and Federal authorities. ***We recommend that the Office of Homeland Security develop an information and education program on the legal and procedural problems involved in a health and medical response to terrorism and, in coordination with the Department of Justice and the American Bar Association, consider the efficacy of model laws or other programs to enhance future responses to such events.***

The attacks of September 11 and other recent events highlight the need for a public information strategy. Public information programs for the coordination of initial and continuing public pronouncements during and following an attack require coordination with every response entity at all levels of government. ***We recommend that the Office of Homeland Security develop on-going programs as part of the implementation of the national strategy for public education prior to terrorist events about the causes and effects of terrorism and for coordinating public pronouncements during and following an attack.***

Strengthening Immigration and Border Controls

The movement of goods, people, and vehicles across our borders is characterized by vast and extremely complex transportation, logistics, and services systems. We should, nevertheless, make it harder to exploit our borders for the purpose of doing harm—physical or economic—to our citizens. Currently, cooperation is limited among those Federal agencies with border responsibilities, State and local entities, the commercial transportation and shipping industries, and other private sector organizations. ***We recommend that the Office of Homeland Security create an intergovernmental border advisory group, as part of that office, with representatives of the responsible Federal agencies, and with State, local and private sector partners from jurisdictions with significant ports of entry.***

At the operational level, Federal, State, and local agencies must act collectively and share critical information on all aspects of immigration and border control. ***We recommend that the Office of Homeland Security facilitate the full integration of affected Federal, State, and local entities, including Coast Guard "Captains of the Port," representatives of airports of entry, and border crossing communities, into local or regional "port security committees," as well as into any adjacent Joint Terrorism Task Force (coordinated by the FBI), or other interagency mechanisms.***

Relevant, timely intelligence is crucial in the campaign to combat terrorism, especially for immigration control and border security. ***We recommend that the President ensure that all agencies with border responsibilities are included as full partners in the intelligence collection, analysis, and dissemination process, as related to border issues.***

The full, timely analysis and dissemination of information among affected Federal, State, and local agencies may be critical in preventing the movement of foreign terrorists and their weapons across our borders. Current systems in this area are inadequate. ***We recommend that the Office of Homeland Security create a "Border Security Awareness" database system to collect and disseminate information about immigration and border control, and the Congress should mandate participation of relevant Federal agencies and provide adequate resources to fund it.***

Existing identification and reporting requirements on the movement of people and goods across our borders are outmoded, and after-the-fact reporting and waivers of these requirements are no longer acceptable. The vast majority of cargo manifests—outbound bills of lading and related documentation—are already in electronic format and readily transmittable to authorities, the Congress just needs to legislate that requirement. ***We recommend that the Congress enact legislation requiring all shippers to submit cargo manifest information on any shipment transiting U.S. borders at a minimum simultaneously with the arrival of such goods at any U.S. port of entry, with the imposition of severe penalties for noncompliance.***

Private sector operators of international transportation and other logistics systems already maintain extensive information that could help in the early identification of terrorist activities to move people or goods into this country. The Congress should provide authority and resources to Federal enforcement agencies for granting incentives to encourage entities to make this information available. ***We recommend that the President direct the establishment of "Trusted Shipper" programs within the relevant agencies of government.***

The percentage of commercial U.S. "flagged" vessels is a small fraction of the total number of commercial vessels in service worldwide. Nevertheless, U.S. persons own fully or in majority percentage many commercial vessels flagged by other countries. Currently, the U.S. Coast Guard has statutory authority to inspect in international waters only U.S. "flagged" vessels. ***We recommend that the Congress, in consultation with appropriate Executive Branch agencies, expand Coast Guard search authority to include vessels that are owned in majority percentage by U.S. persons.***

No comprehensive, prioritized research and development agenda exists among related Federal agencies with immigration and border control responsibilities. Individual agencies have valuable research activities under way, but those activities have not been incorporated into a

comprehensive agenda. ***We recommend that the Office of Homeland Security develop a coordinated, fully resourced plan for research and development and for fielding and integration of sensor and other detection and warning systems.***

Coast Guard resources to perform its ordinary missions have been reduced in recent budget cycles, with no concomitant reduction in mission. With the increased requirement for enhanced homeland security, the Coast Guard must be provided adequate resources to accomplish these critical tasks. ***We recommend that the Congress increase resources for the U.S. Coast Guard for homeland security missions.***

Canada has been a base for terrorists or would-be terrorists for attacks against the United States. The illegal movement of people and drugs across our border with Mexico also indicates the ease with which terrorists could cross our borders from the south. Some agreements and protocols with these countries exist, but more needs to be done. ***We recommend that the U.S. government negotiate more comprehensive treaties and agreements for combating terrorism with Canada and Mexico.***

Enhancing Cyber Security

Cyber security involves national security, law enforcement, civil rights, and commercial and other private sector interests. Rapidly increasing technological changes continue to add to the complexity of the issue. Given the fact that more than 80 percent of information systems are owned by the private sector, any solutions will require an unprecedented partnership between government and private entities. ***We recommend that the President direct that the interagency panel on critical infrastructure include representatives from State and local governments as well as the private sector.***

The complexity of cyber security necessitates an independent, objective advisory body to assist in the development of strategies, policies, and programs. ***We recommend that the Congress create an independent commission, tasked to evaluate programs designed to promote cyber security, to identify areas where requirements are not being met, and to recommend strategies for better security. It should be required to report its recommendations to the President and the Congress.***

The National Infrastructure Protection Center (NIPC) at the Federal Bureau of Investigation (FBI) has been ineffective in fully executing its responsibilities for critical infrastructure alert, warning, and response coordination, including cyber attacks by terrorists. This is due, in part, to NIPC's status as part of the FBI, encouraging the belief that it is more involved in law enforcement activities than information sharing. ***We recommend that the President establish a government-funded, not-for-profit entity that can represent the interests of all affected stakeholders, public and private--national security, law enforcement, other government functions, and business and industry interests and concerns--to provide cyber detection, alert, and warning functions.***

The law has not kept pace with rapid changes in information technology and systems or the need for effective response against those who would exploit them. Several Members of Congress have developed an understanding of the issues and have introduced legislation to address some of those problems. Progress has, however, been slow. ***We recommend that the Congress and the Executive Branch convene a "summit" to address, on an urgent basis, needed changes to a***

wide range of federal statutes, to provide necessary protection and incentives for enhancing cyber assurance.

Federal prosecutors and investigators are often impeded by the lack of direct and timely application of existing procedures for obtaining court authority to conduct certain investigative activities where criminal cyber conduct is involved. Authority to use investigative tools for "tapping" criminal electronic transmissions or tracing electronic signatures often comes too late or not at all. ***We recommend that the Congress create a special "Cyber Court" patterned after the court established in the Foreign Intelligence Surveillance Act (FISA).***

A comprehensive research agenda to address the issue of cyber security remains a continuing need. The activities of the Institute for Security Technology Studies (ISTS) at Dartmouth College are significant first steps toward establishing the type of entity we envision to develop such an agenda. ***We recommend that the President establish an entity to develop and implement a comprehensive plan for research, development, test, and evaluation to enhance cyber security.***

Clarifying the Roles and Missions of the Military

The U.S. Armed Forces have enormous capabilities and resources that can support efforts to combat terrorism. Nevertheless, the roles, missions, and organization of the military to deter, prevent, or respond to a terrorist incident inside our borders remain ambiguous. Major issues are at stake, including critical civil liberties implications.

To help clarify the role of the military and coordinate planning activities within the Department of Defense, ***we recommend that the Secretary of Defense seek and that the Congress approve the authority to establish a new undersecretary position for homeland security.***

Central to this coordination is the actual command and control of military assets for deterring, preventing, or responding to terrorist acts. The existing structure is not sufficient. ***We recommend that the National Command Authority establish a single, unified command and control structure to execute all functions for providing military support or assistance to civil authorities.***

Currently, insufficient planning takes place to address the full spectrum of military activities—deterrence, prevention, response, mitigation, and recovery. Such plans, and training and exercise to support those plans, are critical to address future threats and attacks. ***We recommend that the Secretary of Defense direct the development of more detailed plans for the use of the military domestically across the spectrum of potential activities and coordinate with State and other Federal agencies in the creation of more State- or regional-specific plans. We further recommend that the Secretary of Defense direct the military departments to institute specific training in military units most likely to be involved in military support to civil authorities and to expand military involvement in related exercises with Federal, State, and local agencies.***

The National Guard is a logical "bridge" between the military and civil authorities. Accordingly, National Guard units may need to be reconfigured to better support Homeland Security missions. This will inevitably require new training doctrine, instruction, and exercises for Guard units. ***We recommend that the Secretary of Defense direct specific new mission areas for the use of the National Guard for providing support to civil authorities for combating terrorism.***

Considerable misunderstanding continues to exist about the legal bases for military activities, including the use of the National Guard, inside the United States. Several statutes provide for the use of the military for assistance to civil authorities in a variety of emergencies. ***We recommend that the Secretary of Defense publish a compendium, in layman's terms, of the statutory authorities for using the military domestically to combat terrorism, with detailed explanations about the procedures for implementing those authorities.***

Although the Department of Defense now has liaison offices in the various Federal Emergency Management Agency (FEMA) regions, those have not been fully effective in coordinating with State and local emergency management agencies and need to be improved. ***We recommend that the Secretary of Defense improve the full time liaison elements located in the ten FEMA regions and assign those elements expanded missions to enhance coordination with State and local agencies in planning, training, and exercising emergency response missions.***

CHAPTER I.
INTRODUCTION

Only at a few times in our history have the people of the United States been so resolved and so united in seeking solutions to issues of such sweeping national importance. Governments at all levels, business and industry, other private organizations, and ordinary citizens are engaged and ready to assist in implementing a truly national approach to combating terrorism. The attacks of September 11 and subsequent events present us with a unique opportunity to harness our national unity to advance our preparedness to deter, detect, and respond to terrorists to provide more effectively for public health and safety.

The conclusions and recommendations in this report are the result of almost three years of research and deliberation. The Advisory Panel began its work in 1999 by an in-depth consideration of the threats posed to the United States by terrorists, both individuals and organizations. A key finding in the first annual report was the urgent need for a comprehensive national strategy for combating terrorism.

By the second year, the Advisory Panel shifted its emphasis to specific policy recommendations for the Executive and the Congress and a broad programmatic assessment and functional recommendations for consideration in developing an effective national strategy. These conclusions and recommendations are presented in detail in the Second Annual Report, published December 15, 2000, including the comprehensive research and analytical foundation for each recommendation.

To understand the key conclusions and recommendations in this third annual report, it is important to place the recommendations in the context of our previous research and analysis. We begin, therefore, with a brief summary of the recommendations contained in our Second Annual Report.

SUMMARY OF RECOMMENDATIONS IN THE SECOND REPORT

The capstone recommendation in the second report was the need for a comprehensive, coherent, functional national strategy: ***The President should develop and present to the Congress a national strategy for combating terrorism within one year of assuming office***. As part of that recommendation, the panel identified the essential characteristics for a national strategy:

- It must be truly *national* in scope, not just Federal.
- It must be comprehensive, encompassing the full spectrum of *deterrence, prevention, preparedness, and response* against domestic and international threats.
- For domestic programs, it must be *responsive to* requirements from and fully *coordinated with state and local officials* as partners throughout the development and implementation process.
- It should be *built on existing emergency response systems*.
- It must *include all key functional domains*—intelligence, law enforcement, fire services, emergency medical services, public health, medical care providers, emergency management, and the military.
- It must be *fully resourced* and based on *measurable performance*.

The Second Annual Report included a discussion of more effective Federal structures to address the national efforts to combat terrorism. We determined that the solutions offered by others who have studied the problem provide only partial answers. The Advisory Panel has attempted to craft recommendations to address the full spectrum of issues. Therefore, we submitted the following recommendation: ***The President should establish a senior level coordination entity in the Executive Office of the President***. The characteristics of the office identified in that recommendation include:

- Director appointed by the President, by and with the advice and consent of the Senate, at "cabinet-level" rank
- Located in the Executive Office of the President
- Authority to exercise certain program and budget controls over those agencies with responsibilities for combating terrorism
- Responsibility for intelligence coordination and analysis
- Tasking for strategy formulation and implementation
- Responsibility for reviewing State and local plans and to serve as an information clearinghouse
- An interdisciplinary Advisory Board to assist in strategy development
- Multidisciplinary staff (including Federal, State, and local expertise)
- No operational control

We included a thorough explanation of each of these characteristics in our Second Annual Report. For instance, we determined that it is essential that this office have the authority to direct the creation, modification, or cessation of programs within the Federal Interagency. It must also have strict authority to direct modifications to agency budgets and the application of resources. Only through such a process can there be any prospect of coherence and effective execution of implementation plans to support a national strategy once it is developed.

A critical role for this new entity is the coordination and advocacy for related foreign and domestic intelligence activities, including the development of national net assessments of threats. The entity must have authority and responsibility for tasking related intelligence collection and analysis, compiling related intelligence products from the various agencies, providing national threat assessments as a part of the national strategy, and for producing composite products for dissemination to designated Federal, State, and local entities as appropriate.

In addition to certain authority over the Federal Interagency, we recommended that the new entity have authority to review State and geographical area strategic plans and, at the request of State entities, to review local plans or programs for combating terrorism for consistency with the national strategy.

Finally, we determined that this entity does not need to be "in charge" of operations to combat terrorism. As the attacks of September 11 have clearly demonstrated, that responsibility will fall, at least initially, to State and local jurisdictions. The Federal Response Plan, which provides for Lead Federal Agency and functional responsibilities, works. That process does not need to be supplanted.

To complement our recommendations for the federal executive structure, we also included the following recommendation for the Congress: ***The Congress should establish a Special***

Committee for Combating Terrorism—either a joint committee between the Houses or separate committees in each House—to address authority and funding, and to provide congressional oversight, for Federal programs and authority for combating terrorism.
The philosophy behind this recommendation is much the same as it is for the creation of the office in the Executive Office of the President. There needs to be a focal point in the Congress for the Administration to present its strategy and supporting plans, programs, and budgets, as well as a legislative "clearinghouse" where relevant measures are considered. There are at least 40 committees and subcommittees that have some jurisdiction over the issue of terrorism. No existing standing committee can or should be empowered with all of these responsibilities, because each existing committee is limited in its jurisdictional scope. Despite some attempts in this direction by the leadership of both Houses, no such entity has been created. In the House, the "Speaker's Working Group" on terrorism was transformed, following the September 11 attacks, to a regular subcommittee of the House Permanent Select Committee on Intelligence—a useful first step. In the Senate, the leadership has only established an informal working group, although at the time of this writing there appears to be some movement toward a special committee. Under this recommendation, most existing committee authorities can be preserved.

In conjunction with these structural recommendations, the Advisory Panel made a number of recommendations addressing functional requirements for the implementation of an effective strategy for combating terrorism. The recommendation listed below are discussed thoroughly in the Second Annual Report:

Enhance Intelligence/Threat Assessments/Information Sharing

- Improve human intelligence by the rescission of that portion of the 1995 guidelines, promulgated by the Director of Central Intelligence, which prohibits the engagement of certain foreign intelligence informants who may have previously been involved in human rights violations
- Improve Measurement and Signature Intelligence (MASINT) through an expansion in research, development, test, and evaluation (RDT&E) of reliable sensors and rapid readout capability and the subsequent fielding of a new generation of MASINT technology based on enhanced RDT&E efforts
- Review statutory and regulatory authorities in an effort to strengthen investigative and enforcement processes
- Improve forensics capabilities to identify and warn of terrorist use of unconventional weapons
- Expand information sharing and improve threat assessments

Foster Better Planning/Coordination/Operations

- Designate the senior emergency management entity in each State as the *focal point* for that State for coordination with the Federal government for preparedness for terrorism
- Improve collective planning among Federal, State, and local entities
- Enhance coordination of programs and activities
- Improve operational command and control of domestic responses
- The President should always designate a Federal civilian agency other than the Department of Defense (DoD) as the Lead Federal Agency

Enhance Training, Equipping, and Exercising

- Improve training through better coordination with State and local jurisdictions
- Make exercise programs more realistic and responsive

Improve Health and Medical Capabilities

- Establish a national advisory board composed of Federal, State, and local public health officials and representatives of public and private medical care providers as an adjunct to the new office, to ensure that such issues are an important part of the national strategy
- Improve health and medical education and training programs through actions that include licensing and certification requirements
- Establish standards and protocols for treatment facilities, laboratories, and reporting mechanisms
- Clarify authorities and procedures for health and medical response
- Medical entities, such as the Joint Commission on Accreditation of Healthcare Organizations, should conduct periodic assessments of medical facilities and capabilities

Promote Better Research and Development and Create National Standards

- That the new office, in coordination with the Office of Science and Technology Policy, develop a comprehensive plan for RDT&E, as a major component of the national strategy
- That the new office, in coordination with the National Institute for Standards and Technology (NIST) and the National Institute for Occupational Safety and Health (NIOSH) establish a national standards program for combating terrorism, focusing on equipment, training, and laboratory processes

RECOMMENDATIONS IN THIS REPORT

For the past year, we have focused on several functional challenges, in five specific areas, in protecting the United States against terrorism:

State and Local Capabilities
Health and Medical Capabilities
Immigration and Border Controls
Security Against Cyber Attacks
Roles and Missions for the Use of the Military

The vast majority of the recommendations in this report were adopted at the panel's regular meeting on August 27 and 28, 2001—two weeks prior to the September attacks.

In arriving at the final set of recommendations that are detailed in the following chapters, we considered undertaking a critical analysis of the structure, authorities, and activities to date of the new Office of Homeland Security in the White House.[1] We deferred that analysis. This Advisory Panel, if extended, and others will certainly undertake that task at some point.

[1] The Executive Order creating the Office of Homeland Security (OHS) is in Appendix D. The Executive Order for "Citizen Preparedness in War on Terrorism" is in Appendix E. Presidential Decision Directive-1, "Organization and Operation of the Homeland Security Council," is in Appendix F. Additional information on the activities of OHS and other homeland security initiatives are on the White House website at http://www.whitehouse.gov/

This panel has never contended that it has all the answers or the best answers for the full range of these issues. Our recommendations are, nevertheless, based on the cumulative experience of our members, informed by exceptionally valuable research and analysis from our support staff at RAND, and are offered in the belief that they can contribute materially to the critical current debate.

CHAPTER II.
EMPOWERING STATE AND LOCAL RESPONSE

> *"Be aware that all WMD events are local events with national ramifications. They can be most successfully addressed by local responders who are properly trained and equipped and who deal with hazardous chemical, explosives, biological outbreaks (flu). . . Federal resources can assist them in their efforts but never supplant them."*
>
> A State EMS survey respondent[2]

A distinctive characteristic of this panel, both in terms of its charter[3] and its composition,[4] is its focus on State and local aspects of preparedness and response. A significant percentage of panel members have relevant State and local expertise, including a sitting State governor and State emergency management, State public health, municipal government, law enforcement, fire services, and pre-hospital emergency medical services officials.

In considering measures for improving State and local capabilities, panel deliberations have been guided by a number of principles:[5]

- All terrorist incidents are local or at least will start that way. Effective response and recovery can only be achieved with the recognition that local responders[6] are the first line of defense, and through the proper integration of State and Federal assets into existing response networks.
- Building effective and sustainable response and recovery capabilities requires an "all-hazards" approach that integrates planning and response with existing processes.
- To be most effective, plans and programs for combating terrorism should build on existing State and local management structures and command and control mechanisms.
- Capabilities for combating terrorism should be designed to the greatest extent practicable for dual- or multi-purpose applications, for maximum utility and fiscal economies of scale.
- Effective preparedness for combating terrorism—planning, training, exercises, and operational structures—requires a fully-integrated network of Federal, State, and local organizations. At the local level, this network includes the traditional "first responders"—law enforcement, fire, and emergency medical services personnel—and also *must* include other State and local agencies, such as public health departments, hospitals and other medical care providers, and offices of emergency management.

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[2] See Tab 8 to Appendix G for a comprehensive listing of comments provided by survey respondents.
[3] Appendix A.
[4] Appendix B.
[5] Others have applied similar principles in framing their own conclusions and recommendations. As examples, see the report of the Executive Session on Domestic Preparedness of Harvard University's John F. Kennedy School of Government, November 20, 2001 (Appendix H), and the recommendations of the National Emergency Management Association, October 1, 2001 (Appendix I).
[6] As noted in its *First Annual Report*, the panel has chosen to use "local responders"—as opposed to "first responders"—to characterize those persons and entities most likely to be involved in the early stages following a terrorist attack. That characterization includes not only law enforcement, fire services, emergency medical technicians, emergency management personnel, and others who may be required to respond to the "scene" of an incident, but also other medical and public health personnel who may be required to provide their services in the immediate aftermath of an attack.

- Improving the nation's public health systems must be a priority for government at all levels. Public health entities, especially for incidents of bioterrorism, may be critical in saving lives.
- Strategies and plans must take into consideration that a majority of personnel in certain response disciplines, especially fire services and pre-hospital emergency medical services (EMS), are volunteers.
- Governments at all levels must share in the costs of domestic preparedness and response, but the Federal government should be prepared to provide resources for the "incremental" or "exceptional" costs of combating terrorism beyond those normally required for public health and safety.
- Federal support for States and localities must be designed and administered for maximum flexibility in its application at the State and local levels.

This chapter contains several general recommendations for improvements in Federal programs that provide assistance to State and local entities for combating terrorism, as well as other changes at the Federal level that would enhance State and local preparedness.[7] The recommendations are based on the collective expertise of the panel; extensive interviews and briefings; and significant research and analysis performed by support staff at RAND, most particularly information collected via a first-of-its-kind, scientifically constructed and validated nationwide survey of State and local response organizations: EMS organizations, law enforcement entities, fire departments, public health agencies, hospitals, and offices of emergency management.

This chapter contains an overview of the survey, including a description of the survey purpose and design, the survey process, survey response rates, and selected survey results.[8] At the time the survey was in the field for response, States were engaged in a continuing dialogue with Federal agencies about the process for receiving support and the ways in which those resources could be used at the State and local level. Program fragmentation and inconsistent guidance from certain agencies were hampering the ability of States to advise local officials about Federal programs. The vast majority of State agencies designated by Governors to coordinate the application of Federal support share the resources that they receive with local entities consistent with Federal guidelines. It is, however, not always clear to local agencies that the original source of that support is Federal. Survey results discussed below substantiate the dilemma faced by States and localities in the administration of Federal programs.

In addition to the recommendations in this chapter, each other chapter in this report contains specific recommendations dealing with State and local preparedness and response related to the subject matter of those chapters.[9]

[7] Unless otherwise indicated, these conclusions and recommendations apply to *all* State and local response organizations.
[8] Complete details of the survey process and results can be found in Appendix G.
[9] The Health and Medical, Use of the Military, and Cyber Security chapters also present information collected in the survey of State and local responders. That information is not duplicated here.

GENERAL CONCLUSIONS AND RECOMMENDATIONS

Sharing Intelligence

All State and local organizations surveyed strongly indicated that the Federal government should provide threat and risk assessment information and that the Federal government should provide intelligence about terrorist activities. **We recommend that agencies of the Federal government increase and accelerate the sharing of terrorism-related threat assessments and intelligence with appropriate State and local officials and response organizations.** Recent steps taken by the Attorney General to develop protocols for sharing more information developed at the Federal level with States and localities, provisions in the USA PATRIOT Act of 2001, and related initiatives pending in the Congress could significantly enhance preparedness and response. In making the announcement of new Justice Department initiatives, the Attorney General said, "Increased sharing of information among law enforcement and national security personnel at all levels of government are critical to the common effort to prevent and disrupt terrorist acts. To win the war on terrorism, Federal prosecutors and law enforcement personnel must develop and implement effective procedures for information-sharing and cooperation with their State and local counterparts."[10] The challenge will be to put protocols effectively into practice. It is critical that procedures for sharing appropriate information with non-law enforcement entities also be developed. State and local agencies response agencies must be equal and fully informed partners in the national effort to identify potential incidents and to respond effectively when they occur. For example, when a possible biological threat is identified, sharing information with public health entities will facilitate targeted disease surveillance, resulting in more rapid identification and treatment of potential victims. The Office of Homeland Security should monitor such activities to ensure that appropriate information is being shared at the State and local levels.

Improving Training and Equipment Programs

According to the survey responses, State and local organizations that have participated in Federal training programs value the training and equipment and tend to give them high marks for being both relevant and useful. They agree, however, that the training and equipment are not sufficient to prepare fully for response to a significant terrorist incident.

Furthermore, training and equipment are often dedicated to preparations for so-called "WMD" incidents. If more emphasis were placed on designing training and equipment programs for application to a broad range of hazards, communities and responders would be more effectively prepared for *all* emergencies. This concept will be especially important in the aftermath of September 11; care must be taken to ensure that programs implemented in the current national emergency environment[11] are not ineffective because they are fragmented, uncoordinated, or too narrowly focused.[12]

For natural disasters, accidents, or intentionally perpetrated events, it will be the State and local responders, including both traditional "first responders" as well as public health, medical care,

[10] Memorandum from The Attorney General of the United States to all United States Attorneys, Subject: Cooperation with State and Local Officials in the Fight Against Terrorism, November 13, 2001.
[11] For a description and discussion of the emergency supplemental appropriations enacted post-September 11, see Appendix J.
[12] That was a significant problem following the bombing in Oklahoma City in 1995.

and other State and local personnel, who will be "on scene first and the last to leave." More effective response will be achieved not by creating new entities or processes but by enhancing existing response systems through all-hazards training and equipment for such response organizations. **We recommend that Federal agencies design related training and equipment programs as part of all-hazards preparedness.** Embedding training for combating terrorism into existing training will also reduce costs, as the additional training will represent an incremental increase in existing programs, not the establishment of new, stand-alone programs. In our second report, we recommended that the new office in the White House that we proposed conduct inventories of State and local programs for capabilities that can be utilized in a national context, especially training and exercise programs. We reemphasize that point as an item for action by the Office of Homeland Security and note that the inventory should include Federal programs as well.

In most cases, Federal programs are designed to provide training and equipment support on a "one-shot" basis. Refresher training for the initial training audience is important but cyclical training for new personnel is also required. Equipment programs must be designed to include spare parts and maintenance components, as well as replacement mechanisms. In direct response to the emerging threat of terrorism, the Nunn-Lugar-Domenici (NLD) initiatives[13] provided training and equipment directly to certain local response organizations.[14] Since its inception, the initiative has resulted in an aggregate of several thousand hours of training and millions of dollars of equipment being provided to targeted communities. While the initiative served its intended purpose of heightening awareness to the threat and serving as a starting point to enhance the response capacity throughout the United States, the lack of sustainment support in that and similar programs makes maintaining a high level of readiness more difficult. **We recommend that Federal agencies with training and equipment programs design or redesign those programs to include sustainment components.**

Providing Resources More Effectively

The response to the attacks of September 11 proves, more eloquently than we could express, that local and State responders truly are the first line of defense. Moreover, local and State jurisdictions—not only those attacked, but others who have been on high alert since that time—have borne the brunt of increased fiscal outlays for their response entities. Better preparedness at the local and State level is critical. **We recommend that the Congress increase the level of funding to States and local government for combating terrorism.** This will require funding to support both preparedness and actual response operations. This action is necessary to ensure that States and localities are better prepared to work in partnership among themselves and with the Federal government in protecting public health and safety from these extraordinary threats.[15]

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[13] Public Law 104-201, National Defense Authorization Act for Fiscal Year 1997, Title XIV—Defense Against Weapons of Mass Destruction, September 23, 1996.

[14] Many public health and medical entities have not participated in NLD programs. None has received direct funding.

[15] See "Protecting Our Nation: The Immediate Needs of America's Fire Service," a joint publication of Congressional Fire Services Institute, International Association of Arson Investigators, International Association of Fire Chiefs, International Association of Fire Fighters, International Society of Fire Service Instructors, National Fire Protection Association, National Volunteer Fire Council, and North American Fire Training Directors, in Appendix K.

A common refrain from State and local responders is that Federal grant programs for terrorism preparedness are uncoordinated, have different rules and requirements, and are unduly burdensome. This is consistent with earlier General Accounting Office (GAO) findings and our previous reports. The variations in grant program requirements place a significant administrative burden on local – particularly small rural and volunteer – organizations. Said one survey respondent, "Process and paperwork is too much to ask of a volunteer Chief." **We recommend consolidating information and application procedures for Federal grant programs for terrorism preparedness in the Office of Homeland Security and that all funding and grant programs be coordinated through the States.** Consolidation within the Office of Homeland Security is necessary so that State and local officials can more readily determine what assistance is available. It can also help streamline and standardize the grant process to eliminate unnecessary or duplicative requirements.

For several years, the administration of Federal grant programs has been inconsistent. Some have called for direct funding to local organizations, bypassing State entities. Further fragmentation of the process, one that does not recognize the role of States in planning and coordination, is not likely to solve existing problems in this process. Efforts should ensure that States integrate the needs of their communities into the development of statewide strategies that target limited federal resources most effectively.

State organizations have valid reasons for arguing that Federal programs be coordinated through State offices, not only to ensure that they complement State plans and requirements, but also because State entities are more likely to understand *how* and *where* and *in what priority* Federal resources should be applied. As the GAO has said, "Some of these programs initially were implemented without appreciation for existing State and regional structures for emergency management."[16] While the GAO reports that "the Department of Justice has taken a number of steps to improve the delivery of the [domestic preparedness] program to better leverage existing State and local programs,"[17] more can be done to ensure better coordination efforts across all related Federal programs and offices.

In addition, Federal funding and other resources must be flexible enough to allow State and local entities to apply them most effectively to improve their response capabilities. This means allowing State and local organizations greater flexibility in the use and timing (beyond the constraints of the Federal fiscal year) of the application of Federal resources.

Recognizing the Special Requirements of Volunteers

Volunteers, especially those in fire services and EMS, often cannot participate in training programs during normal working hours because of other employment commitments. Furthermore, their organizations often do not have sufficient funding for travel. As one survey respondent from a volunteer fire department said, "There needs to be a special program at low/no cost to local volunteer response groups for training, exercises and equipment done at a local level." Similarly, a combination (part paid/part volunteer) fire department chief said, "Offer training on the weekends [regionally] so paid call and volunteer personnel can attend." **We recommend designing and scheduling Federal preparedness programs so that first responders, particularly those in volunteer-based fire and EMS organizations, can**

[16] *Combating Terrorism: Selected Challenges and Related Recommendations*, GAO-01-822, September 2001, p. 90.
[17] Ibid, at p. 96.

participate. Training and exercise programs should be scheduled for nights and weekends and, where practicable, designed to *go to* volunteer organizations, rather than the other way around. More emphasis should also be placed on "distance learning" techniques, such as Web-based, televised, or direct mail applications

Providing Better Information

State and local responders strongly indicate that they are not aware of what is available from the Federal government, both in terms of programs and offices to promote preparedness and, to a lesser degree, what specialized assets are available to support response to a particular type of incident. This lack of awareness of important Federal preparedness programs may inhibit the preparedness of State and local organizations. It also may delay the summoning of Federal support assets by local and State responders in the event of an incident. Furthermore, in the short term, as the Federal government reorganizes to combat the terrorist threat, confusion about Federal preparedness programs and Federal response assets could increase. **We recommend that the Office of Homeland Security serve as a clearinghouse for information about Federal programs, assets, and agencies with responsibilities for combating terrorism.**

Coordination problems could be reduced considerably through the creation and distribution of various resource handbooks. These resources should be available in hard copy and in Web-based and other electronic formats. In each case, they should be developed with input from States and localities. These resources should include:

Emergency Response Guidebook. The Office of Homeland Security should compile a comprehensive Emergency Response Guidebook for State and local responders, similar to the DOT Emergency Response Guidebook, that includes flexible guidelines and models for response to terrorist incidents and a complete list of Federal assets available to respond to such incidents. This response guidebook should be distributed annually to each related State and local response agency.

Federal Preparedness Resource Guide. The Office of Homeland Security should also compile a comprehensive resource guide with a complete list of Federal training courses,[18] funding and grant programs, and other resources available to State and local emergency response organizations, including program requirements, deadlines, and Federal contacts. This Federal Preparedness Resource Guide should also be distributed annually, or more frequently during times of significant program and organizational change, to every related State and local response agency.

Fundamentals of Response to Terrorist Incidents. For rural and volunteer organizations, the Federal government should provide information specially tailored for such organizations. It should provide a compendium of model plans, basic procedures, and operational checklists for those communities that do not have sufficient resources to develop plans on their own. A local EMS survey respondent said it best:

> *Most volunteers in small rural or semi-rural departments do not have the background, the expertise, to fully absorb and/or use the type of information being given out by Federal organizations. If they do receive booklets or information, it seems to be geared toward large departments in large cities with a great deal more equipment to handle large disasters. Suggestions: (1) [Provide] several relatively*

[18] Including those Federally approved programs conducted by States.

simplistic examples of basic preparedness guidelines/SOPs . . . Emergency plans in some communities date back to the Cold War; (2) [Provide] examples of exercises for mutual aid communities with small departments . . . Don't just tell them to hold [exercises], tell them how; and (3) [Provide] booklets discussing basic equipment that small departments should have or have access to . . .Volunteers are very capable of doing many things and are willing to give their all, they just may not have the type of training necessary to initiate disaster preparedness guidelines for WMD and could use some help with the paperwork. Help to get things set up—then they will run with it.

Integrating Military Capabilities More Appropriately

The Federal military[19] should provide support to State and local responders during response to a terrorist incident. As described in Chapter Six, "Clarifying the Roles and Missions of the Military," the State and local survey respondents predominantly want the military to perform such supporting roles as maintaining order and providing security, providing personnel and equipment, and setting up kitchens, clinics, and mass care facilities.[20] **We recommend that Federal military response assets be configured to support and reinforce existing State and local organizational structures and emergency response systems.** Federal military assets must also be trained and exercised to operate within the Incident Command System (ICS) during response to an incident. ICS should be employed by all Federal agencies when responding to a disaster involving State or local response organizations. For example, the Coast Guard has successfully implemented ICS when responding to various disasters, such as oil spills or the crash of Egypt Air flight 900.[21] The success of the Coast Guard in implementing ICS should be used as a model for other Federal agencies, including the military.

SUMMARY OF THE SURVEY OF STATE AND LOCAL RESPONSE ENTITIES[22]

Purpose and Design[23]

The survey was designed to elicit State and local response organizations' assessments of Federal programs intended to improve State and local preparation and readiness to respond to a terrorism incident inside our borders. The survey was fielded between March and September of 2001. All

[19] As compared to the National Guard operating in its Title 32 or "State" status, under the control of the governors.
[20] Such military supporting roles are consistent with the recent report on Quadrennial Defense Review (QDR) released on September 30, 2001: "Those who respond first to any incident will likely be those closest to the event—local law enforcement and emergency response personnel. It was clear from the diverse set of agencies involved in responding to the September 11, 2001, terror attacks on the World Trade Center and the Pentagon that the Department of Defense does not and cannot have sole responsibility for homeland security . . . In particular, the Defense Department will place new emphasis upon counter terrorism training across Federal, State, and local first responders, drawing upon the capabilities of the Reserve and National Guard" (p. 19). And on p. 42: "The Department must be prepared to provide support to State and local authorities, if Webster requested by the lead federal agency."
[21] W.R. Webster, Captain, United States Coast Guard, "The Next Disaster: Ready to Respond?" *Proceedings*, United States Naval Institute, vol. 127, pp. 48-51 (September 2001). Nevertheless, transfer of control of that incident from the Coast Guard to another Federal agency was delayed because the incident command and control structure had to be reorganized so that it would fit the other organization's structure rather than the ICS.
[22] Survey results reported here do not reflect those questionnaires returned after September 11. Hence, the following discussion does not reflect changes in the opinions or priorities of local and State response agencies that may have occurred as a result of the terrorist attacks or subsequent events.
[23] For additional information about the survey, see Appendix G.

but 24 of the 1,104 surveys completed—almost 98 percent—were returned prior to September 11, 2001.

Organizations surveyed included local law enforcement, fire departments, offices of emergency management, public health departments, and hospitals; local, regional, and State emergency medical services; and State offices of emergency management and public health departments. Surveys were distributed to 1,687 organizations—150 at the State level and 1,537 at the local and regional levels.[24] The survey instrument was divided into five sections, as outlined in Figure 2.1.

Section 1: Organizational Information
- Relevant organizational demographics

Section 2: Organizational Experience and Threat Perceptions
- Expectation of a terrorist incident:
  - Within the U.S. in the next five years
  - Within their jurisdiction in the next five years
- Organizational experience with actual incidents and hoaxes

Section 3: Emergency Response Planning Activities
- Organizational participation in emergency response planning
- Existence of emergency response plans
- Relevant training

Section 4: Responding to Specific Terrorist Incidents
- Measures of preparedness for incidents:
  - Conventional explosives
  - Chemical
  - Biological
  - Radiological
- Specific questions for the scenario above deemed most important by each respondent

Section 5: Assessment of Federal Programs
- Application and/or receipt of Federal support
- Evaluation of Federally sponsored exercises
- Assessment of various aspects of Federal programs
- Use of the military and cyber-terrorism

Figure 2.1. Survey Instrument Outline

The sample was constructed by randomly selecting 200 counties throughout the United States and then randomly selecting one of each type of local response organization (law enforcement, fire services—paid, volunteer, and combination—EMS, public health, hospitals, and offices of emergency management (OEM)). All relevant State-level organizations (public health, OEMs, EMS) were surveyed, including those in U.S. territories and Washington, D.C. Regional EMS entities that contained one or more of the 200 counties in the sample were surveyed. In addition to the random sample of counties, 10 counties were handpicked based on past terrorist incidents or upcoming events that might have heightened their sensitivity to terrorism (e.g., the Olympics).[25] The most prominent of each type of response organization within each of these counties was then also surveyed.[26]

[24] The District of Columbia was also sent all three State-level surveys, and State-level OEM and public health surveys were sent to the U.S. territories of Puerto Rico, Guam, Virgin Islands, and Northern Marianas Islands.

[25] Tab 1 to Appendix G provides additional information about the survey design process, and Tab 2 to Appendix G contains a sample of the fire department survey instrument. Survey instruments were tailored to the individual types of responder groups. Major differences were:
Public health agencies were not given the narrative and questions on conventional explosives.
Hospitals were questioned only about biological and chemical incidents in their scenario.
Public health was additionally questioned about in-house laboratory capabilities and their capacity to distribute information to other responder groups.

Response Rates

Two of every three recipients who received a survey completed and returned it—an overall response rate of 66 percent. Most groups achieved better than a 70 percent response rate. A few performed considerably better, including State public health departments and combination fire departments, whose response rates exceeded 80 percent. A few of the more difficult-to-survey populations, with additional effort, only exceeded 50 percent response rates: volunteer fire departments, hospitals, and local/regional responding EMS. In each case, however, the response rates were exceptional when compared to rates achieved with these organizations in other survey efforts. The final sample of survey respondents is representative of local and State responders both geographically and across the different emergency response and health disciplines. Surveys were received from every State in the Union and the District of Columbia.[27]

Technical Notes[28]

Unless otherwise indicated, the survey results have been statistically adjusted to represent the entire population in that discipline (e.g., law enforcement). However, the phrases "survey respondents" and "of those surveyed" are used to indicate that figures refer only to those organizations that actually completed the survey. Table 2.1 below provides the margins of error for the survey.

	Organization	Margin of Error[29] (percent)
Local	Law Enforcement	8
	Fire Departments (all)	6
	Combination only	9
	Volunteer only	10
	Paid only	10
	Hospitals	10
	OEM	8
	Public Health	8
State	OEM	7
	Public Health	6
	EMS	9

Table II.1. Survey Margins of Error Rounded to the Nearest Percent[30]

Margins of error are useful for judging the likely range of the true value: the actual value for the entire population is highly likely to lie within the observed survey percentage plus or minus the margin of error. Even though all State-level organizations were surveyed—a census rather than a sample—calculation of the margin of error is still relevant, because some State-level organizations did not reply to the survey.

Local OEM, State OEM, and State EMS agencies were questioned about whether their jurisdiction as a whole received training or equipment.

[26] Complete details of the sample selection methodology are contained in Tab 4 to Appendix G. Additional information about the fielding methodology is contained in Tab 3 to Appendix G.

[27] As described in Appendix G, each region of the country was well represented, and the final results can be generalized to all State and local response organizations nationwide.

[28] Additional technical details of the survey can be found in Appendix G.

[29] These margins of error are a conservative estimate. Results for some questions will have lower margins of error.

[30] Since convenience sampling was used to select regional EMS organizations no margin of error can be calculated.

SPECIFIC SURVEY RESULTS

Major Survey Findings

- State and local response organizations value Federal training, exercises, and equipment. They find them relevant, useful, and judge the costs of participating worth what they must invest to participate. In particular, the Domestic Preparedness Program is clearly valued by the State and local responders who participated in that program. These judgments also apply generally to Federal training and exercises. However, State and local organizations say that the training and equipment programs did not or do not train or equip an adequate number of personnel to respond to a moderately sized terrorist incident.
- State and local organizations tend to think that Federal programs to improve local responder preparedness are not well organized. They strongly feel that such programs should be better coordinated between the Federal government and response organizations.
- The main factor limiting participation in Federal programs is lack of awareness of those programs. Depending on the type of response entity, from just under one-half to almost three-quarters of such organizations reported lack of awareness of Federal programs as a reason for nonparticipation.
- Federal support is reaching important State agencies: OEMs and public health departments. Virtually all of these organizations apply for and receive some Federal support. Furthermore, local public health agencies and OEMs seem to benefit from their State colleagues' interaction with and knowledge of Federal grants processes because they report higher levels of Federal support compared to other local organizations.
- State agencies receive more of all types of Federal support—funding, equipment, training, exercises, and reference materials—than do local response organizations. In contrast, the fraction of local organizations that reported receiving Federal equipment or funding is significantly smaller, both among all local organizations and among those that received any Federal support.
- Some Federal support may go unrecognized at the local level. For example, Federal support delivered indirectly through the States or other means may not be recognized as Federal. Some survey respondents may also have indicated only support *directly* received by their organization, thereby underrepresenting the impact of shared resources.

Domestic Preparedness Program[31]

As reported by the GAO, by October 2000, 105 cities had received training in the 120 Cities program, of which 68 cities also received equipment. By design, this program was targeted at cities, hence the training and equipment was provided to organizations in urban areas (GAO-01-822, September 2001). However, many local responder organizations felt that the focus on cities was inappropriate and so commented in the survey.

[31] Also known as the Nunn-Lugar-Domenici (NLD) or "120 Cities" program.

> *"A large amount of money, training and effort has been directed at the 120 largest cities in America. From my perspective it appears that there is either no thought or very little thought given to the fact that other areas of our country can be vulnerable to terrorist attack."*
> A fire department responder
>
> *"Absolute need to target states (such as ours) that have been completely left out of Nunn-Lugar-Domenici funding."*
> A State public health official

State and local participants in the 120 Cities training program gave that program high marks in many respects. Virtually all organizations find the training relevant, with average ratings by responder group ranging from 3.4 to 3.9 (on a 1 to 5 scale in which 3 is neutral and 5 is highly relevant).[32] The program's training also received generally high marks in the following areas: (1) that the training improved each local response organization's preparedness; (2) that the training was worth the staff-hours invested; and, (3) that the training was useful, even for incidents that do not involve terrorism. Similar, and often slightly higher, ratings were given for the equipment provided by the 120 Cities program in terms of relevancy, improving readiness, and equipment usefulness.[33] There were some exceptions:

(1) State public health agencies and State OEMs were neutral about whether or not the training had improved their *State's* readiness.
(2) State OEMs and State EMS organizations were neutral about whether or not the *equipment* they received had improved their *State's* readiness.
(3) EMS organizations were neutral about whether the training had improved their organizations' readiness and whether the training had been useful to their personnel (even for events not involving terrorism) and *disagreed* that the equipment had been relevant, adequate, or improved their readiness.
(4) Fire departments were neutral about whether the equipment they received had improved their readiness and marginally negative about the high cost of maintaining the equipment and its adequacy.

All types of State and local organizations reported that the program did not train an adequate number of personnel, with average ratings by responder group ranging from 1.8 to 2.4 (on a 1 to 5 scale in which 3 is neutral and 1 is very inadequate). Similarly, most types of organizations found the equipment programs insufficient to equip an adequate number of personnel.

Use of Other Federal Offices and Training and Equipment Programs

Apart from the Domestic Preparedness Program, a number of Federal programs offered by the Department of Justice (DOJ), The Federal Emergency Management Agency (FEMA), and the Centers for Disease Control and Prevention (CDC) have attracted requests for support by most States and some local responders. Of local responders, OEMs reported requesting support from other Federal programs the most—30 percent from FEMA's Emergency Management Institute (EMI) or Fire Academy and about the same from the DOJ or FBI, compared to just 9 percent

[32] All ratings were statistically significant except for law enforcement, which was statistically indistinguishable from "neutral."
[33] See Tab 7 to Appendix G for a detailed breakdown of organizational ratings.

who requested support from the Domestic Preparedness Program. Fire departments (15 percent) and responding EMS (6 percent) also requested support from FEMA's EMI or Fire Academy. A small fraction of hospitals (4 percent) and local public health departments (7 percent) reported that they had requested support from CDC's bioterrorism program, and a surprisingly small number of law enforcement organizations reported requesting support from any of these agencies (at most 3 percent, from FEMA's EMI).

In contrast, State-level agencies were far more likely to request Federal support. Nearly all State public health departments (98 percent) requested support from CDC's bioterrorism program, but a considerable fraction (from about 20 to 40 percent) from DOJ or FEMA requested it as well. A strong majority of State OEMs reported looking to DOJ's Office of State and Local Domestic Preparedness Support (95 percent) or FEMA (83 percent) for support, but also to other elements of DOJ (45 percent) and CDC (38 percent). State EMS offices were more likely to request support from CDC's bioterrorism program (37 percent) than the others, but nearly half reported not seeking any support at all from any of the programs mentioned above.

For radiological emergency training from DOE, local and State OEMs participate most often (eight and 48 percent, respectively), although a small number of State EMS agencies reported having participated as well (6 percent). State OEMs and EMS also report participating in U.S. Army programs, including the U.S. Army Chemical School, Medical Research Institute of Chemical Defense, and Research Institute of Infectious Diseases (from 5 to 17 percent), as do a small fraction of local public health departments (5 to 8 percent).

As in the Domestic Preparedness Program, responders who received training from these programs generally agreed that participation yielded a significant improvement in their organization's preparedness (3.2 to 3.7, depending on the responder group),[34] and agreed even more strongly that the training was relevant to their needs (3.3 to 4.0); but all groups except local and State OEM felt that the number of personnel trained was not adequate for responding to terrorist incidents that might occur in the future (2.0 to 2.6). On this last point, local and State OEMs, which should be expected to have the broadest view of large-scale emergencies, were in fact neutral. All responder groups, on average, felt the time invested was worth the effort (3.5 to 4.1) and that the programs would be useful, even for their day-to-day duties (3.5 to 3.9).

Local and State views on *equipment* they received from Federal programs are much the same. However, law enforcement agencies were more critical than others. They did *not* agree that equipment they received significantly improved their preparedness, was relevant to their needs, was worth the cost of upkeep, or that the equipment would be useful (even for non-terrorist events). Other responder groups were more favorable. Fire departments and State OEMs (3.7) departed from the more negative views of others in their opinions that the equipment *would* be adequate for responding to future incidents.

In their open-ended comments, however, some agencies expressed frustration with the targeting of funds and other support. The remarks below echo these thoughts—that targeting is neither equitable nor efficient.

[34] As before, a rating of 3 indicated neutrality, 5 indicated "strongly agree," and 1 "strongly disagree." The figures reported here are averages.

> *"The Federal WMD funding is going to many non-state chem/emergency response/bomb] teams duplicating much of the current state response systems. States have been left out of the MMRS and 120 cities program making for a difficult response network with no one leading the effort... Many of the Federal training programs are the same thing with a different name, created by different contractors...state and local government have been left out of the process... We have asked for technical assistance and are yet to see any help!"*
>
> A State OEM official

> *"Our state is very densely populated and yet has had no Nunn-Lugar funding, has no NDMS, no HHS-MMRS, no full-time WMD-CST (NGB). As a result, we are years behind our neighbor states with respect to planning and resources for WMD preparedness. Doesn't anyone at the Federal level care about our state?"*
>
> A State public health official

Exercises

Organizations that have participated in exercises with Federal entities rate the exercises high in a number of ways. First, virtually all of the organizations tended to agree that their own participation helped make the exercise more realistic.[35] Second, most organizations agreed that Federal involvement helped improve State and local capabilities more than would have been the case without Federal participation.[36] Yet, Federal involvement does not imply an increase in the number of exercises. In particular, when asked whether the organizations would not have participated without Federal involvement, local organizations were statistically neutral and State organizations tended to disagree.[37]

In fact, more than 80 percent of each type of local response organization have not participated in exercises with the Federal government. Furthermore, either with or without Federal involvement, the majority of local organizations have not conducted exercises for moderately sized conventional explosives, chemical, biological, and radiological incidents.[38] For example, fewer than half of most types of local response organizations have emergency response plans for a conventional explosives incident of approximately the size of Oklahoma City or for a chemical or radiological incident of similar size, and less than one-third have emergency response plans for a biological incident. Of the organizations with emergency response plans, only between one-third and two-thirds have exercised the plan within the last five years (with chemical incident exercises being conducted slightly more frequently).

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[35] On a scale of 1 to 5, in which 3 is neutral and 5 is strongly agree, average responses ranged from 3.2 to 4.0. All were statistically significant except for fire departments and responding EMS organizations. (Hospitals were not asked this question.)

[36] On a scale of 1 to 5, in which 3 is neutral and 5 is strongly agree, average responses ranged from 3.1 to 3.8, with the exception of State OEMs, which averaged 2.9. All were statistically significant except for fire departments, law enforcement organizations, and responding EMS organizations. (Hospitals were not asked this question.)

[37] On a similar scale of 1 to 5, local organizations' average responses ranged between 2.7 to 3.1, and none were statistically distinguishable from neutral, 3.0. State organizations' average responses were between 2.5 and 2.6, and all were statistically significantly less than 3.0.

[38] See the scenarios in Section 4 of the sample survey in Tab 2 to Appendix G. These scenarios reflect incidents involving hundreds of casualties to be similar in magnitude to the Oklahoma City incident.

In contrast, 71 percent of State EMS organizations, 76 percent of State public health organizations, and 92 percent of State OEMs have participated in exercises in which a Federal agency either helped organize or coordinate the exercise, provided funding to the participating organizations, or participated in the exercise itself. Furthermore, the majority of State organizations have emergency response plans for moderately sized conventional explosives, chemical, biological, and radiological incidents, and the majority of those with plans report exercising them in the last five years.

Opinions on the Usefulness and Value of Federal Programs

> *"Generally, numerous Federal efforts need to be consolidated and centrally coordinated."*
>
> A regional EMS official

Both State and local response organizations believe that Federal programs to improve responder preparedness are *not* well synchronized or organized. While law enforcement organizations, local EMS, and local public health organizations were statistically neutral in this regard, all other local response organizations (law enforcement, fire departments, hospitals) tended to be somewhat negative, and State organizations were the most negative. All organizations, whether local or State, tended to judge the programs to be inflexible, especially when they did not allow Federal funds and resources to be used to meet requirements identified at the State or local level.

> *"A total lack of coordination and control exists at the Federal level."*
>
> A local OEM official

All of the local response organizations also strongly felt that the programs should be better coordinated between the Federal government and State and local response organizations. On the other hand, State and local organizations tended to agree that the Federal programs *were of use* to their organizations, with State organizations most strongly agreeing.[39]

Factors Limiting Participation in Federal Programs

Both State and local organizations indicate that the primary factor limiting their participation in Federally sponsored programs is lack of awareness of those programs. From 43 to 71 percent of local organizations, depending on the type of organization and type of program, reported lack of awareness of such programs. State organizations were less unaware, ranging from 38 percent of State public health organizations to 18 percent of State OEMs. This result holds for those organizations that participated in the Domestic Preparedness Program as well. Lack of awareness of Federal programs was reflected in survey respondents' comments.

[39] On a scale of 1 to 5, where 1 is strongly disagree and 3 is neutral, local organizations' average responses ranged from 2.3 to 2.7 and State organizations ranged from 2.1 to 2.4 for a question that said Federal programs "are of little use to our organization." Hence, they agreed that the programs are of use, and the results were statistically significant for all organizational types.

> *"The only WMD training I have heard about is from other local agencies. Let us know what is available."*
> A law enforcement official
>
> *"We are unaware of most of the Federal programs you mention. Perhaps they are dealing with our state health department, or perhaps only with larger jurisdictions. At any rate, some outreach to inform us of their functions and resources would be helpful."*
> A local public health department official
>
> *"Unaware of any of the programs mentioned [in the survey]."*
> A hospital official

The next most common reasons for not taking advantage of these programs were excessive cost of participation, and excessive time commitment. A related charge, particularly strong among responders in volunteer organizations, is that training is generally not scheduled at times when they can participate.

State public health organizations and State OEMs—those organizations that applied for and received Federal support most—also mildly, but statistically significantly, agreed with the statement that Federal programs for improving local responder preparedness are *so numerous* that they have difficulty determining what is relevant to them.[40]

Application for and Receipt of Federal Preparedness Support

All State public health departments and virtually all State offices of emergency management (OEMs)—98 percent—have applied to the Federal government for preparedness funding, training, equipment, or other support in the last five years. All State public health departments and State OEMs also report *receiving* some form of preparedness support from the Federal government. In contrast, about half of State EMS offices report applying for Federal support and 63 percent—more than the number who applied—report receiving support either for their own organization or for other EMS organizations within their State.

The majority of local organizations have not applied for Federal preparedness support. Only 40 percent of local OEMs, and 16 percent or less of all other local response groups, have applied for such support. More local public health organizations (at the county level) and local OEMs report receiving Federal support than applying for it (55 percent of local OEMs and almost 27 percent of local public health organizations), perhaps benefiting from their State colleagues' Federal contacts and activities. The percentage of other organizations—namely hospitals, responding EMS organizations, fire departments, and law enforcement agencies—reporting receiving such support is slightly less than or statistically indistinguishable from the percentage that applied.

Types of Federal Preparedness Support Received

Local responder organizations that receive support predominantly receive training, exercise, and reference materials. Between 4 and 14 percent of fire departments, hospitals, and local law enforcement organizations, responding (as opposed to regulatory) EMS organizations, and local public health agencies, and just over 40 percent of local OEMs receive these types of Federal

[40] On a 1 to 5 scale, where 5 is strongly agree and 3 is neutral, State OEMs' average response was 3.5 and State public health averaged 3.2. Both were statistically significantly different from neutral (3.0).

support. On the other hand, law enforcement organizations, fire departments, hospitals, and EMS organizations rarely receive funding and equipment for preparedness (only approximately 1 to 3 percent of each), while local public health organizations and local OEMs are more likely to receive Federal funding and equipment (14 and 26 percent, respectively).

However, State organizations are far more likely to receive funding and equipment as well as other types of support. Virtually all State public health offices and State OEMs have received Federal preparedness funds.[41] Slightly more than three-quarters of the State public health offices also received equipment, while only about one-third of the State OEMs received equipment. About half of the State EMS organizations received either funding or equipment. Most State offices also received training, exercise, and reference materials: 46 percent of State EMS offices, 73 percent of State public health agencies, and 98 percent of State OEMs.

Satisfaction with the Distribution of Federal Resources

A majority of the State and local response organizations that receive Federal support share the resources they receive with other organizations. Fully 100 percent of State OEMs share their resources, as do 80 percent of local OEMs. Similarly, three-quarters of State public health organizations and between half and two-thirds of the other organizations share Federal resources.

Whether it is distributed directly to local communities by the Federal government or through State governments, local organizations tend to be mildly dissatisfied with the distribution of funds. On a five-point scale where one is very negative, three is neutral, and five is very positive, each of the local response organizations' average response tended to be negative. In particular, local organizations' opinions of direct Federal distribution (to local organizations) ranged from 2.4 to 2.8, and for distribution by States from 2.3 to 2.9. All were statistically significant except for local public health organizations' average score for State distribution, which, although negative, was not statistically distinguishable from "neutral."

State organizations view the performance of Federal agencies distributing funds to locals in much the same way: they are either neutral or equally mildly dissatisfied with direct Federal distribution of funds. They were more generous in their opinions of distribution of funds by State agencies: State EMS was mildly dissatisfied (2.8), State public health was mildly satisfied (3.2), and State OEMs were quite satisfied (4.0).

Preferred Types of Federal Preparedness Support

As shown in Table 2.2, financial support and training (or training aids) are the two most widely preferred ways that the Federal government can support the preparedness efforts of local organizations. Funds and training are followed by outreach to local organizations, equipment procurement, and exercise coordination and support. Table 2.3 shows that direct financial support is also the type of support most favored by State organizations, though many State OEMs want equipment procurement and some State EMS organizations want more Federal outreach or training.

[41] All State OEMs and 75 percent of State public health agencies indicated that they shared some part of Federal resources with other organizations within their State.

What is *the most important* way that the Federal Government can support the efforts of local organizations to improve WMD preparedness?	Percent					
	Law Enforcement	Fire department	Local EMS	Local OEM	Local public health	Hospitals
Direct financial support	32	42	33	39	25	37
Training or training aids	34	35	23	13	17	20
Outreach to State and local organizations	8	11	10	12	12	17
Equipment procurement	6	6	17	20	0	5
Exercise coordination and support	7	1	7	4	7	3
Other response	13	5	10	12	39	18
Total:	100	100	100	100	100	100

Table 2.2. Most Important Way Federal Government Can Support *Local* Response Organizations

What is *the most important* way that the Federal Government can support the efforts of state organizations to improve WMD preparedness?	Percent		
	State OEM	State public health	State EMS
Direct financial support	49	61	38
Training or training aids	3	5	14
Outreach to state and local organizations	3	2	21
Equipment procurement	27	0	7
Exercise coordination and support	0	5	7
Other response	18	27	13
Total:	100	100	100

Table 2.3. Most Important Way Federal Government Can Support State Organizations

Looking more closely at the "Other response" category, Table 2.4 shows that only a small fraction of hospitals and local and State health departments ranked as *most important* Federally supported surveillance systems for detecting possibly terrorist-related disease outbreaks, communication systems between health agencies, and establishment of a national pharmaceutical stockpile. In fact, less than one in 10 members of each of these groups believe these efforts are the most important way the Federal government can support local and State responders to prepare for terrorist events. The table does not necessarily imply that enhancing surveillance systems, establishing health communication systems, and maintaining a pharmaceutical stockpile are not of *any* importance to the health and medical communities, only that when forced to choose, these organizations tended to rank direct funding and other items of immediate use to their organizations ahead of Federal help in specific areas.

What is *the most important* way that the Federal Government can . . . improve WMD preparedness?	Percent		
	Hospitals	Local public health	State public health
Enhance current surveillance systems to include detection and reporting of possible terrorist-related disease outbreaks or injuries	2	5	10
Establish a centralized communication system to rapidly notify health departments and other medical institutions regarding disease outbreaks related to bioterrorism and other emergency health information	1	16	0
Maintain a national pharmaceutical stockpile of medical supplies, devices, and equipment for possible terrorist-caused illness or injury for local health department access	3	6	0

Table 2.4. Ways Federal Government Can Support Medical and Public Health Communities

Consistent with all organizations nationwide, the smaller set of organizations that participated in the Domestic Preparedness Program (120 Cities) also predominantly ranked direct financial support as the most important way the Federal government can improve preparedness. Many of these organizations also chose equipment procurement, training and training aids, and outreach. In the only consistent difference from all response organizations nationwide, the 120 Cities program participants tended not to select exercise coordination and support, perhaps reflecting their recent participation in the 120 Cities program.

Opinions of the Grant Application Process

While State and local organizations were not directly asked about the Federal grant application process, some respondents provided written comments, and the comments they provided were generally critical. Some focused on the burden of the Federal grant process.

> *"Presently, the Federal grant application process is laborious and cumbersome."*
>
> A fire department responder

> *"Federal grant applications are usually complicated and too time consuming to complete, especially when the grants are generally awarded to much larger agencies…"*
>
> A law enforcement official

Some OEMs that have responsibility for managing the preparedness of other organizations in their jurisdiction focused on the lack of organization at the Federal level and said that Federal programs often bypass State organizations and are not well aligned with statewide priorities.

> *"There appears to be an alphabet soup of Federal organizations that offer grants, each grant having different rules. We need one Federal agency to be in charge of <u>all</u> grants and they need to be funneled through the states."*
>
> A local OEM official

> *"The Equipment Procurement Grant has been too narrowly focused, again, ignoring the state's attempts to develop a statewide response capability."*
>
> A State OEM official

The survey did not delve into this topic in detail because the problems of the grants application process are well known. The National Domestic Preparedness Office (NDPO) was created in part to serve as a single focal point for State and local organizations. As described in a recent U. S. General Accounting Office (GAO) report, NDPO has not met its original expectations (GAO-01-822, September 2001). While the NDPO was assigned the tasking of supporting State and local entities as a "one-stop shop," it never fulfilled that mandate. This is not attributable to the individuals assigned to the office but is more directly related to the failure, over several years, of the Executive Branch and the Congress to fund that entity sufficiently.

CHAPTER III.
IMPROVING HEALTH AND MEDICAL CAPABILITIES

While progress is being made in coordination, communication, and capabilities for combating terrorism in public health and medical care (public[42] and private[43]), much remains to be done:

- A robust public health system is fundamental to a long-term solution for a variety of health issues, including terrorism. Improvements in public health infrastructure are now critical. Years of under-resourcing this vital national asset has increased our vulnerability.
- Improvements must be made in coordination and communications that span the complex interrelationships of all response entities, with special emphasis on effective pre-hospital emergency services and medical response in rural areas.
- Standards and protocols are lacking across most health and medical systems, especially in laboratory methods—detection, identification, surveillance, and forensics—and reporting.
- Much more is required in planning, training, and exercising among health and medical professionals and the broader emergency planning and response communities. While certain public health and medical personnel are now included in such activities, inconsistencies exist nationwide, and important personnel, such as psychologists, pathologists/ medical examiners, and veterinarians, are often overlooked.
- Preparation and mobilization for infrequent events, especially a large-scale acute event, and recognition of unannounced events, particularly those involving biological agents, present major challenges. Shortages in medical, public health and scientific research personnel exacerbate the problem. Incident management plans for such events are not well defined. Exercises focused on health and medical are needed to enhance response coordination and to identify areas that need further improvement.
- In addition to treating victims with physical injuries, medical and public health systems must be better prepared to deal with the "worried well" and patients suffering effects from stress.[44]
- Better focused and prioritized research is critical, especially detection, identification, prophylaxis, treatment, communications, epidemiology, and forensics. Development, production, and distribution of vaccines, drugs, and other medical supplies are required to respond to existing and emerging threats. Progress in biotechnology and increasing dissemination of information can improve the nation's ability to prevent and respond but also increases the risks that terrorists will use this knowledge to cause great harm.[45]
- Current government and legal structures are ill equipped to handle quarantine, containment, isolation, mandatory vaccinations, and other issues of prescriptive activity.
- Public awareness and communications are important tools in combating terrorism. As illustrated by the public affairs and communications activities in the wake of the recent anthrax attacks, pre-event public education and awareness, and post-event public communications require greater attention and better planning.

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[42] Those owned by local, State, and Federal government entities (including U.S. military and veterans hospitals).
[43] Both for-profit and not-for-profit institutions, including in the latter case those run by religious organizations.
[44] The lessons from the Aum Shinrikyo attack in 1995 are still instructive. See the panel's *First Annual Report*, pp. 40-50.
[45] "Discovery sparks bio-warfare fears," Stephen Brook, T*he Australian*, January 12, 2001.

"While I am in complete agreement that we, as a nation, need to be prepared to deal with incidents of terrorism. I think we need to further exam[ine] the state of our emergency systems. This country's Emergency Departments are unable to care for the current load of patients in an effective manner and even an epidemic of routine disease will overwhelm the system.… …there is a profound shortage of nurses as well as space"

A hospital administrator

"Our public health staff are overextended so it is difficult to train, prepare when staff resources are not available"

A local public health official

"Healthcare is being strangled by funding cutbacks while the expectations of us are increasing – we are lucky to still provide our traditional role of showing up for a heart attack"

A local EMS responder

"Hospitals are max'd out already. No 'slack' to plan, exercise, etc."

A state public health official

In our survey, we asked local responders whether they thought hospitals and public health agencies "are well-integrated with other emergency response organizations" in their community in "planning and preparing" for terrorist incidents. Table 3.1 shows that, with the exception of law enforcement organizations' opinion of hospital integration (and hospitals' opinions of themselves) less than half of all types of local response organizations judge hospitals and public health agencies to be well-integrated in planning and preparations.

"In your opinion, are _____ well-integrated with other emergency response organizations in your community in planning and preparing for [WMD] incidents…?"	Percent Agree					
	Law Enforcement	Fire department	Local EMS	Local OEM	Local public health	Hospitals
…hospitals…	61	31	40	47	27	50
…public health agencies…	42	24	29	41	25	33

Table 3.1. Health and Medical Integration

Improving Coordination, Communications, Standards, and Protocols

"There is little to <u>no</u> coordination at the federal level & too much duplication."

A hospital official

In our survey of State and local health and medical organizations, all agreed that Federal preparedness programs should be better coordinated between the Federal government and State and local organizations. State public health and EMS organizations most strongly agreed, giving

average scores of 4.3 on a five-point scale in which 5 indicates "strongly agree." Local public health departments, EMS organizations, and hospitals also agreed, with average scores of around 4.0 for each group.[46]

In our second report, we recommended that a new office in the White House establish a national advisory board composed of Federal, State, and local public health officials and representatives of medical care providers, as an adjunct to that new office, to ensure that health and medical issues are an important part of the national strategy. To address medical system roles, **we recommend that Federal, State, and local entities as well as affected private-sector medical organizations fully implement the American Medical Association (AMA) "Report and Recommendations on Medical Preparedness for Terrorism and Other Disasters."**[47] The first principal recommendation of the AMA report begins to address our earlier recommendation by calling for the creation of a collaborative public-private entity at the national level to:

- Develop medical education on disaster medicine and the medical response to terrorism
- Develop information resources for the health and medical communities on terrorism and other disaster responses
- Coordinate with Federal and State entities, professional organizations, and the private sector to develop model plans for terrorism and other disaster response
- Address the issue of reliable, timely, and adequate reporting of dangerous diseases

The Office of Homeland Security should establish such an advisory body for the development of strategies and programs.

The second recommendation in the AMA report encourages State, local, and specialty entities of the Federation of Medicine[48] to become more involved in terrorism and other disaster response planning, training, and education. That recommendation directly supports our emphasis on the need for closer coordination among all entities involved in combating terrorism. The implementation of this recommendation will facilitate the required relationships among medical providers, public health entities, emergency managers, and other emergency responders, through all-hazards joint planning, training, and exercises. As noted, a special focus on pre-hospital emergency medical services coordination is key.

The third AMA recommendation is the same as one contained in our previous report[49]: That the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and state licensing authorities include, in their periodic accreditation and licensing processes, effective evaluations of hospital plans for terrorism and other disaster response.[50]

[46] All were statistically significant. See Appendix G for more detail.
[47] AMA Council on Scientific Affairs, January 2001, synopsis included at Appendix L.
[48] A term of art used by the AMA to describe all entities involved in public health and medical care.
[49] *Second Annual Report*, p. 35.
[50] Plans for other disasters do undergo evaluation, but we question whether even those evaluations are sufficiently comprehensive. See further discussion of this topic in the section on standards and protocols.

> *"Conference/lectures have been very good about telling us . . . that we should be prepared and coordinated. What they lack are real nuts and bolts of 'how to.' How about sample protocols, etc…"*
> A local public health official

We recommend that medical systems fully implement the JCAHO Revised Emergency Management Standard.[51] That standard requires that accredited facilities establish and maintain a comprehensive plan for response to disasters and emergencies, including terrorism, within an all-hazards framework. Plans should address all aspects of response, including coordination with other response entities both public and private, reporting and other communications processes, and training of critical personnel, and the standard includes an annual evaluation of the plan.

We recommend that the Congress provide sufficient resources to the U.S. Department of Health and Human Services (DHHS) for full implementation of related CDC and public health preparedness programs:

Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response— This plan defines the critical steps to prepare the public health agencies for terrorist attacks, which include

- enhancing epidemiologic capacity to detect and respond;
- establishing surveillance for critical biological and chemical agents;
- enhancing training of public health professionals;
- enhancing communication and public education programs; and
- encouraging research.

Laboratory Response Network for Bioterrorism[52]**—**This "collaborative partnership" of Federal agencies, State public health entities, professional associations, and academia is precisely the approach envisioned by this panel. The program involves

- developing critical laboratory capacity in public health laboratories;
- fostering appropriate linkage with clinical laboratories; and
- integrating these capacities into overall emergency preparedness.

The goals of the program are rapid detection, analysis, and communication of the findings to appropriate health and medical entities nationwide.

Secure and Rapid Communication Networks. The Health Alert Network is specifically designed to improve communications within the public health community, especially between CDC and local and State health departments and with other medical and emergency response entities (particularly law enforcement and emergency management agencies). It is also designed to support local efforts to track diseases, to train public health professionals, and to establish a nationwide information technology infrastructure. This and other systems, such as CDC's Epi-X are beginning to provide encrypted Secure Data Networks for transfer of sensitive files between the CDC and State and local health departments, and secure communications between public health and other emergency response entities. These

[51] JCAHO Standard EC.1.4, can be found in Appendix M.
[52] For additional information, see the briefing provided by CDC to the panel on the panel's website at www.rand.org/nsrd/terrpanel.

systems are only in the early stages of development and implementation, and need additional resources for further development, for coordination with affected entities nationwide, and for full implementation.

We encourage the development and implementation of similar programs to enhance medical and public health preparedness and response for combating terrorism.

Facilitating Planning, Training, and Exercises

> *"WMD/HM training is very expensive. The information needs to be presented in an <u>all</u> hazards format to start."*
>
> A hospital official
>
> "*We have participated in one full blown exercise [involving] hazardous materials (nerve gas). There is a critical need to develop a realistic table top drill for a biological weapon*."
>
> A local public health official

Additional standard medical and public health response models must be developed, and training and exercises on the use of those models should be embedded in Federal, State, and local activities. Those tools must be developed to enhance coordination and communications between medical and public health entities and with other response entities, with special recognition of the need to improve pre-hospital emergency medical services and the need to include rural communities all activities. **We recommend that DHHS, in coordination with the Office of Homeland Security, develop standard models for health and medical responses to a variety of hazards for use at Federal, State, and local levels and in conjunction with the private sector.** The planning tools should be community-based, tailorable to an individual jurisdiction's unique requirements and capabilities,[53] and focus on transportation, communications, and other coordination requirements that may span multiple hospitals and clinics, public health agencies, and numerous other emergency response entities.

We recommend that the Secretary of HHS reestablish a pre-hospital Emergency Medical Services (EMS) program office. This is necessary to support state and local EMS organizations for professional development, evaluation, and planning processes and other issues of EMS systems and operations. No Federal office is now responsible for these issues. In addition, **we recommend that the Secretary of Transportation direct the National Highway Traffic Safety Administration's Office of Emergency Medical Service to revise the existing Emergency Medical Technician (EMT) and Paramedic National Standardized Training Curricula, and corresponding Refresher Curricula,** to incorporate required educational modules to address

- EMS Response to Terrorism Incidents;
- EMS Response to Hazardous Materials Incidents;
- EMS Operations in Hazardous Environments; and
- EMS Disaster / Multiple Casualty Incident (MCI) Response and the Incident Management System for EMS.

[53] State response teams should be included in the model and planning template development.

More and better exercises are critical—to determine the adequacy of training; to test and improve the plans and capabilities of individual hospital facilities; to stress coordination between health and medical entities, and with the other emergency response agencies; and to span the range of response entities and threats, not just biological attacks. Nevertheless, exercises are especially important where biological agents are involved, because such attacks will necessitate new partnerships in communities and will demonstrate the need for better recognition of the critical role of medical and public health agencies. Exercises must be based on State and local input, to address the requirements of their jurisdictions. Equally important, exercises must include evaluations, after-action reports, and statements of lessons learned, to assist in decisions for resource allocation and to guide future training. Federal resources are required to support these initiatives. **We recommend that the Congress increase Federal resources for exercises that are informed by and targeted at State and local health and medical entities.**

Improving Stockpiles

> *"[We] need equipment and stockpiles."*
> A hospital administrator

The timely research, development, production, and distribution of certain critical vaccines and other medical supplies continue to be perplexing problems.[54] Vaccines can cost hundreds of millions of dollars to develop, and commercial manufacturers may have little incentive to produce vaccines with a potentially small or variable market. Moreover, private industry has become more risk-averse where vaccines are concerned, because of the potentially huge liability that they may incur. In addition, vaccines and other pharmaceuticals must be licensed by the Food and Drug Administration (FDA) after meetings standards for both safety and efficacy. Human testing for efficacy is unethical, potentially unlawful, in the case of biological and chemical agents for which there is no known cure. FDA inspections are becoming increasingly stringent, making licensing even more challenging.

We recommend the establishment of a government-owned, contractor-operated national facility for the research, development, and production of vaccines and therapeutics for specified infectious—especially contagious—diseases. The private-sector market is unlikely to be the answer to some of the more difficult vaccine issues. Direct government ownership is likely to be the only reasonable answer for certain bio-organisms—anthrax and smallpox being at the top of the list.[55] This new laboratory could be seconded to DoD, perhaps as an adjunct to the U.S. Army Medical Research Institute on Infectious Diseases. We are not, however, proposing that the costs for such a laboratory be borne exclusively by DoD. Costs should be

[54] Recent experiences of the Department of Defense in the timely acquisition of reliable anthrax and adenovirus vaccines, as well as civilian shortages of influenza vaccines in 2000 and an ongoing tetanus toxoid shortage, highlight the magnitude of the problem. According to the American Society of Health System Pharmacists, supply problems for drug products have been increasing, stemming from challenges in all segments of the supply chain: raw material sources, pharmaceutical manufacturers, Federal regulators, wholesalers and other distributors, health care facilities, and pharmacies (accessed at http://www.ashp.org/shortage/ on October 12, 2001). In our *Second Annual Report*, we noted that the TOPOFF exercise, conducted in May 2000, highlighted existing problems in the delivery and distribution of vaccines, antidotes, and prophylaxes. Unfortunately, as of the writing of this document, the Department of Justice has not yet released the TOPOFF After-Action Report, which was due in November 2000.

[55] Such a laboratory could, among other things, conduct research into a recombinant anthrax vaccine that could reduce or eliminate the requirement for multiple vaccinations in order to take effect.

apportioned among the various agencies that have responsibilities for the specific vaccine program. Significant research and development on vaccines of interest primarily to the military already exists. This research should be leveraged for the U.S. population as a whole. Limited production capabilities for small-market (i.e., military useful) vaccines are currently the largest hurdle facing DoD[56] and civilian bioterrorism preparedness.

> *"National pharmaceutical stockpile does not, in my opinion, address the needs of major cities at this time. Responses of C.D.C. stockpile personnel at our recent exercise clearly indicate a need to revise the program."*
>
> A local OEM official
>
> *"CDCs pharmaceutical stockpile program and release procedures are seriously FLAWED—will not work".*
>
> Another local OEM official

The availability of vaccines and other critical medical supplies, especially antidotes and prophylaxes—at the right place and the right time—is likely to make a dramatic difference in the level of casualties that result from an attack. The Department of Veterans Affairs (DVA) has certain responsibilities for stocking such supplies; the CDC and other DHHS entities have additional responsibilities. It is not clear that adequate coordination and comprehensive planning for the execution of those responsibilities have taken place, especially for point-of-distribution and other activities at the State and local level. Those responsibilities and implementation plans should be clarified, coordinated, and transparent to all affected response entities in the health, medical, and emergency response communities. The effect of transportation slowdowns, individual stockpiling, and other external factors should be considered in the design of stockpiles. **We recommend that the Office of Homeland Security, with advice from its related national advisory board and in coordination with DHHS and DVA, review and recommend appropriate changes to plans for the stockpile of vaccines and other critical supplies.**[57]

[56] A report to the Deputy Secretary of Defense by an independent panel of experts on "Department of Defense Acquisition of Vaccine Production (AV)," December 2000, found that, "DoD needs to consolidate and integrate its vaccine research, development, and acquisition programs for BW defense and endemic disease protection. Success requires a tailored acquisition model and infusion of technically qualified staff at all levels. A Joint Program Officer must have responsibility and authority for the program and report to a designated Vaccine Acquisition Executive reporting to the Undersecretary of Defense (Acquisition, Technology and Logistics)." Recommended resources were $3.2 billion for eight vaccines.

[57] In addition to these recommendations, the panel suggests that consideration be given to the creation of a National Vaccine Authority. See discussion on that topic in Chapter Seven, and in Appendix N.

Expanding Research and Development

> *"Let's get on the ball on development of vaccines and detection"*
> A local law enforcement officer

There are many challenges in the scope and coordination of the government's research and development (R&D) programs as well as challenges in technology transfer and diffusion of technology innovations to the state and local levels. Many important areas of health and medical R&D require special attention, including, as noted previously, focused research in genetic modifications, mutations, and other areas, to keep pace with emerging research and technology.

Surveillance is critical to mitigating the consequences of a terrorist attack, especially a biological one. R&D on effective surveillance systems is very important to the public health community's ability to identify, investigate, and respond rapidly and effectively to terrorist threats and attacks. Because other surveillance methods often do not provide near real-time reporting, and because reporting can be critical for the prevention, recognition, and treatment of disease outbreaks, interest in early warnings through syndromic surveillance is growing. Syndromic surveillance relies on reports from pharmacies, hospitals, primary care medical providers, and others about syndromes or symptoms that may indicate an epidemic sooner than reports of specific diagnoses.[58] There are some innovative ideas, including a prototype in New York City.[59] As New York City itself has learned, however, syndromic surveillance systems must be complemented by good communications between medical and health entities.[60]

We emphasize the need for better detection and identification capabilities, especially for biological agents, and deployable, field monitoring capabilities for all agents.[61] Quickly identifying those at risk of injury or infection from a terrorist attack, particularly one involving biological agents, is critical. That capability will facilitate a more effective response with antibiotics, antidotes, and prophylaxis for those truly exposed and provide reassurance to those who are not.

Potential short- and long-term psychological problems may result from a terrorist attack. Surviving victims and the "worried well" may well suffer significantly from the terror of these attacks. Emergency responders, such as police, fire, and medical personnel, may suffer from

[58] Ann Marie Kimball, "Overview and Surveillance of Emerging Infections," available at http://cer.hs.washington.edu/em_inf/emerging/emerg.html (accessed September 3, 2001). Kimball observes that syndromic surveillance is less specific than traditional disease surveillance and points to the danger that it may supersede laboratory-based surveillance.

[59] New York City has established a sentinel network of 11 hospitals that report daily to the New York City Department of Health on the number of hospital admissions via the emergency department. Health department officials also seek to track influenza by monitoring the numbers of seven types of 911 calls that were found to correlate with influenza outbreaks. The system tracks calls reporting difficulty breathing, respiratory distress, minor sickness, adult sickness, pediatric sickness, adult asthma, and pediatric asthma. Amy E. Smithson and Leslie-Anne Levy, *Ataxia: The Chemical and Biological Terrorism Threat and U.S. Response*, Henry L. Stimson Center, Report No. 35 (October 2000), p. 256.

[60] The West Nile virus was first recognized not by the excellent syndromic surveillance systems in place in New York but by an astute infectious disease physician who had recently met the public health epidemiologist and called her when she saw three unusual cases of encephalitis.

[61] Preferred qualities include low false-alarm rate, inexpensive, easy to operate with little training, lightweight, robust in the field, long shelf life, low power requirements, and environmental sampling capability.

"critical incident stress" that may affect performance and pose greater risk to themselves and to the public. Post-traumatic stress disorders can create longer-term treatment requirements for victims and responders alike. Even those who are indirect victims of an attack suffer psychological consequences, and research would likely improve the medical community's ability to prevent, evaluate, and treat these conditions. Implications for entire communities, beyond just the medical aspects, also must be considered.

We recommend that the Office of Homeland Security, on the advice of its related national advisory board, and in coordination with the responsible Federal agencies, develop a comprehensive plan for the full spectrum of medical and health research for terrorism-related medical issues, including the psychological repercussions of terrorism and pre-hospital interventions. In developing such a research plan, we suggest the approach be, to the extent feasible, one of multi-purpose, broad-spectrum applications in concert with the private sector.

Assessing Capabilities

It has been more than five years since a comprehensive inventory of medical capacities under the National Disaster Medical System has been conducted. Information on available facilities and related capabilities will be crucial when an attack occurs. Moreover, there continue to be issues of structure, location, and capabilities of the Metropolitan Medical Strike Teams, organized under the Metropolitan Medical Response System (MMRS), and the Disaster Medical Assistance Teams, established under the National Disaster Medical System (NDMS). In addition, many systems depend on volunteers. **We recommend that the Secretary of HHS, in conjunction with the Office of Homeland Security and its related advisory board, conduct a thorough review of the authorities, structures, and capabilities under MMRS and NDMS.**

Clarifying Authorities and Procedures for Health and Medical Response

Policymakers and response entities are faced with thorny issues, such as quarantine, containment, isolation, mandatory vaccination and other prescriptive measures, and scope of practice and other legal issues. Significant civil rights and civil liberties issues are involved, such as privacy matters, arrest procedures, and search and seizure authority. These activities create the potential for conflicts between local, State, and Federal authorities. Some problems reflect a lack of knowledge about current law and regulation. Others arise from the disparity of the laws and the various procedures that may be required to implement them.[62] **We recommend that the Office of Homeland Security develop an information and education program on the legal and procedural problems involved in a health and medical response to terrorism, and in coordination with the Department of Justice and the American Bar Association, consider the efficacy of model laws or other programs to enhance future responses to such events.**[63]

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[62] We commend the American Bar Association (ABA) Standing Committee on Law and National Security for facilitating a variety of symposia on these issues in recent months. See "The Cantigny Conference on State Emergency Health Powers & the Bioterrorism Threat: Framework for Action," set forth as Appendix O, which contains valuable insight into the problems as well as proposed solutions.

[63] A potential model is the "Model State Health Powers Act," prepared by the Center for Law and the Public's Health at Georgetown and Johns Hopkins Universities and the Centers for Disease Control and Prevention, in collaboration with the National Governors Association, the Association of State and Territorial Health Officials, the National Association of City and County Health Officers, and the National Association of Attorneys General, draft of October 23, 2001. A copy of the model act is available for download at www.rand.org/nsrd/terrpanel.

Developing Public Information Programs

The attacks of September 11, the lessons from the recent anthrax attacks and subsequent investigation, and the meningitis outbreak in Ohio this spring[64] highlight the importance of adequate preparation and effective execution of a public information strategy, especially in a biological emergency with humans or agricultural commodities (including livestock).

> Key to the role of public health is education and information for the public and for health professionals. Whether an epidemic is a naturally occurring one such as that involving West Nile virus, or whether produced by a terrorist, public health professionals and public health departments around the United States need timely, accurate, and reliable information . . . Within the Department of Health and Human Services, there must be a single credible medical/public health expert spokesperson that reports regularly, most likely daily, to the American people in regard to any outbreak with national significance. This is analogous to the situation in local communities where there is a need for such an individual to communicate on behalf of the local health department.[65]

We recommend that the Office of Homeland Security develop ongoing programs, as part of the implementation of the national strategy, for public education prior to terrorist events about the causes and effects of terrorism and for coordinating public pronouncements during and following an attack. Development of a public awareness program should include media representation. Such programs must also recognize the need to identify, in advance of an attack, credible medical and public health experts, who can assist in the dissemination of public information when an attack has occurred.[66] Coordination of initial and continuing public announcements in the wake of an attack should include every affected response entity at all levels of government to avoid confusing or contradictory statements, which could increase public panic and anxiety.

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[64] See Appendix P.

[65] Testimony of Kenneth I. Shine, M.D., President, Institute of Medicine, The National Academies, "Risk Communication: National Security and Public Health," Subcommittee on National Security, Veterans Affairs, and International Relations, Committee on Government Reform, U.S. House of Representatives, November 29, 2001, pp. 3-4 ("Shine Testimony"). For that and other expert testimony on the subject before that hearing, see http://www.house.gov/reform/ns/statements_witness/nov_29.htm

[66] See Harvard School of Public Health/Robert Wood Johnson Foundation "Survey Project on Americans' Response to Biological Terrorism," *Tabulation Report*, October 24-28, 2001, available on the panel's webpage at www.rand.org/nsrd/terrpanel.

CHAPTER IV.
STRENGTHENING IMMIGRATION AND BORDER CONTROLS

The statutory mandate for the Advisory Panel requires it to "assess . . . the needs of maritime regions."[67] Immigration and other border security matters are all closely linked. This chapter will, therefore, address all avenues of entry into the United States—land, air, and sea—not just maritime.

Issues of immigration enforcement and border security are especially important in developing a national strategy for combating terrorism to address the diverse activities of Federal, State and local entities. Some statistics emphasize the point[68]:

- Over 100,000 miles of national coastline
- Almost 2,000 miles of land border with Mexico, another 4,000 miles with Canada, most of it essentially open to transit
- Almost 500 million people cross our borders annually
- Over 127 million automobile crossings annually
- Over 11.5 million truck crossings annually
- Over 2.1 million rail cars annually
- Almost 1 million commercial and private aircraft enter annually
- Over 200,000 ships annually dock in maritime ports
- Over 5.8 million containers enter annually from maritime sources

Of the latter category—maritime containers—less than 3 percent are adequately inspected. Outmoded regulations and processes compound the problem. For example, shippers are allowed a 30-day window, after a shipment arrives at our border, for filing with customs authorities the container bill of lading describing its contents. During that period, the vast majority of maritime containers transit ports and move well into the interior of the United States. That 30-day requirement is, moreover, easily extended.

The movement of goods, people, and vehicles through our border facilities is characterized by vast transportation, logistics, and services systems that are extremely complex, essentially decentralized, and almost exclusively owned by the private sector. Despite efforts by the U.S. Customs Service, the U.S. Coast Guard, the U.S. Immigration and Naturalization Service (including the U.S. Border Patrol), the Federal Aviation Administration, and other Federal entities, as well as State and local enforcement authorities, the challenge is seemingly insurmountable. Those efforts are further hampered by a lack of interagency connectivity and information sharing. Establishing such capabilities could significantly improve enforcement activities without unduly hindering the flow of goods and people.

The demand for the rapid movement of goods in commerce compounds enforcement difficulties. It is a simple matter to describe a number of scenarios in which terrorists might exploit such vulnerabilities. That situation permits significant smuggling of goods and people, creates the

[67] Section 1405 d.5., National Defense Authorization Act for Fiscal Year 1999, Pub. L. 105-261 (H.R. 3616, 105th Congress, 2nd Session) (October 17, 1998).
[68] Information for 2000, from multiple official U.S. government sources, including the Department of Transportation, the Department of Treasury, and the Department of Justice.

potential for the spread of infectious disease (naturally occurring or intentionally perpetrated), fosters fraudulent trade practices, and allows for violations of regulations governing the transit of controlled materials.

Merely increasing enforcement of current laws and regulations through existing mechanisms may not be the answer. That activity could result in further delays at very busy ports of entry. The likely "domino" effect of further delays will be opposition from many U.S. commercial interests whose businesses depend on carefully timed delivery of goods, political pressure from states and localities whose job markets would likely be affected, potential retaliation from foreign countries that export goods to the United States, and increased complaints from the millions of business and tourist passengers transiting our border.

Given the nature and complexity of the problem, the panel recognizes that we as a nation will not likely find the "100 percent solution" for our borders. The laws and traditions that create a free and open society in the United States also make us vulnerable to terrorist attacks. We should, nevertheless, search for ways to make it harder to exploit our borders for the purpose of doing harm—physical or economic—to our citizens. The confluence of these issues calls for innovative approaches that will strike an appropriate *and* more effective balance between valid enforcement activities, the interests of commerce, and civil liberties.

Expanding Interagency Coordination

The effectiveness of programs and activities of the Federal agencies with border responsibilities could be improved through a more effective allocation of resources within those agencies. There also must be better cooperation with State and local entities, with the commercial transportation and shipping industries, and with other private-sector organizations.[69]

We recommend that the Office of Homeland Security create an intergovernmental border advisory group, with representatives of the responsible Federal agencies and with State, local, and private sector partners from jurisdictions with significant ports of entry.[70] This advisory board could assist the director of the Office of Homeland Security in the development of related program and resource priorities as part of the national strategy, without causing upheavals in existing organizational structures. That entity could be modeled on the Border Interdiction Committee, formed in the late 1980s to address the problem of drug trafficking across U.S. borders.

Moreover, existing structures and mechanisms do not allow for close coordination of enforcement activities on our borders. At the operational level, Federal, State and local agencies must act collectively and share critical information (including intelligence) on all aspects of immigration and border control. **We recommend that the Office of Homeland Security facilitate the full integration of affected Federal, State and local entities, including U.S. Coast Guard "Captains of the Port," representatives of airports of entry, and border-**

[69] Presidential Directive-2, "Combating Terrorism Through Immigration Policies," is in Appendix Q.

[70] A Memorandum of Agreement Among the Department of Defense, the United States Coast Guard, the Immigration and Naturalization Service, and the Bureau of Consular Affairs, Department of State, Subject: Maritime Domain Awareness, dated January 12, 2001, establishes an "interagency sub-working group" known as the "National Security Maritime Coordinating Committee." (See Appendix R.) That entity does not, however, include representation from the U.S. Customs Service, from the Intelligence Community, the Department of Commerce, DHHS, the Department of Agriculture, the Interstate Commerce Commission, or from related State or local entities.

crossing communities, into local or regional "port security committees," as well as into any adjacent Joint Terrorism Task Force (coordinated by the FBI) or other interagency mechanisms.

Improving Intelligence Collection and Analysis

Our Second Annual Report discussed the importance of intelligence collection as part of an effective national strategy for combating terrorism. Relevant, timely intelligence is crucial in the campaign to combat terrorism, especially for immigration control and border security. **We recommend that the Office of Homeland Security ensure that all agencies with border responsibilities are included as full partners in the intelligence collection, analysis, and dissemination process, as related to border issues.**[71]

This process is a "two-way street;" all entities involved must be willing to share information, horizontally and vertically. This will represent a departure from the current "culture" of many agencies to cloister information. We encourage the Office of Homeland Security to consider the structure and procedures in our second report for the establishment of intelligence oversight through an advisory board under that office and for the establishment of intelligence tasking, collection, analysis, and assessment capabilities in that office.[72]

Enhancing Information Sharing

The full, timely analysis and dissemination of information among affected Federal, State, and local agencies may be critical in preventing the movement of foreign terrorists and their weapons across our borders. Some interagency agreements for border security do exist, notably the Memorandum of Agreement on Maritime Domain Awareness among the Department of Defense, the U.S. Coast Guard, the U.S. Immigration and Naturalization Service, and the Department of State.[73] The Congress needs to revisit the funding for such programs; all affected agencies are not involved in a fully coordinated and integrated process. As acknowledged by several Federal agencies:

> [N]o single framework exists to effectively look at threats across the broad spectrum of issues. What is necessary is the establishment of an organization structure with the connectivity to create a virtual national data repository with the supporting analytical and communications capabilities to develop effective maritime awareness and coordinate appropriate response.[74]

We recommend that the Office of Homeland Security create a "Border Security Awareness" database system to collect and disseminate information about immigration and border control; and that the Congress mandate participation of relevant Federal agencies and provide adequate resources to fund it. The system could be modeled on the existing U.S. Coast Guard Maritime Domain Awareness program. That program could be expanded to create

[71] The Attorney General, in coordination with other Federal agencies, recently established the "Foreign Terrorist Tracking Task Force." The purpose of the Task Force is to gather, coordinate, and disseminate information (including intelligence and other national security information) among law enforcement and other appropriate agencies (including the State Department) to enable them to have extensive, real-time information on potential terrorists and terrorist activities.
[72] *Second Annual Report*, p. 11.
[73] See Appendix R.
[74] Ibid, p. R-2.

an interactive and fully integrated database system for all border security matters.[75] It should include participation from all relevant U.S. government agencies, and State and local partners.

Strengthening Security Processes and Standards

There are ways to strengthen our border security through compliance requirements and standards that will not adversely affect the movement of goods and people. The fundamental precept will be to provide incentives to those willing to cooperate in such processes. For example, only about 10 percent of firms engaged in the shipment of cargo containers in international commerce handle more than 50 percent of such container shipments. If these firms voluntarily cooperate with stricter border security processes, then this reduces "suspect" container shipments by a similar percentage, allowing security officials to focus time and resources more effectively.

As one step toward these stricter border security processes, **we recommend that the Congress enact legislation requiring all shippers to submit cargo manifest information on any shipment transiting U.S. borders at a minimum simultaneous with the arrival of such goods at any U.S. port of entry, with the imposition of severe penalties for noncompliance.** Allowing after-the-fact reporting and waivers of these requirements is no longer acceptable. In the "Information Age," the vast majority of cargo manifests—outbound bills of lading and related documentation—are in electronic format and readily transmittable to authorities.

Private-sector operators of international transportation and other logistics systems already maintain extensive information that could be helpful in the early identification of terrorist activities to move people or things into this country. There are ways to plumb such information in a manner advantageous to enforcement officials and private sector entities. **We recommend that the President direct the establishment of "Trusted Shipper" programs within the relevant agencies of government.** The philosophy behind such a program is classic "carrot and stick." The underpinnings of the program should include incentives to entities in the transportation and logistics sector that are willing to cooperate with enforcement authorities. Such cooperative arrangements should include the implementation of industry self-policing procedures,[76] the advance provision of cargo manifest data, the sharing of existing "in-transit visibility" data, and the use of improved "smart" technology, such as tagging devices and other enhanced "machine readable" capabilities. The Congress should provide authority and resources to Federal enforcement agencies for granting incentives to Trusted Shippers, in the form of facilitated shipping processes[77] and financial assistance for using enhanced technology. The result of such an approach over time will be more effective concentration of investigative and enforcement activities on the relatively small number of transport and logistics entities who opt not to cooperate—the ones more likely to be engaged in criminal enterprises in the first place. Such efforts should enhance the capabilities of enforcement agencies to fuse that

[75] James Ziglar, Commissioner of the Immigration and Naturalization Service, announced on December 6 that INS will enter the names of more than 300,000 foreign nationals, who have remained in the country illegally after they were ordered deported, into the FBI's National Crime Information Center database. Previously, the government did not pursue most people who ignored orders to leave the country.

[76] Models for such practices already exist, including the Technology Asset Protection Association, a cooperative organization of more than 75 high-tech companies, which implements a set of detailed security practices that must be followed by member companies and others who do business with them.

[77] As one leading expert on border security has described it: "E-Z Trade Lanes," where cooperating shippers provide advance information and move quickly through an automated "lane" at ports. Flynn, Stephen E., "Beyond Border Control," *Foreign Affairs,* November/December 2000, pp. 57-68.

information with other available information, providing better advance warning of the movement of terrorists or their devices.

In the past five decades, the percentage of commercial U.S. "flagged" vessels—those registered with a U.S. home port designated—has continued to shrink as a percentage of the total number of commercial vessels in service worldwide. Nevertheless, U.S. persons own a significant number of additional commercial vessels—exclusively or in majority percentage of ownership—that are flagged by other countries. Currently, the U.S. Coast Guard has statutory authority to inspect in international waters only U.S. "flagged" vessels.[78] **We recommend that the Congress, in consultation with appropriate Executive Branch agencies,[79] expand Coast Guard authority to include vessels that are owned in a majority percentage by U.S. persons.** That authority may provide an additional measure of advance capability in the discovery of illicit cargo bound for our shores.

Enhancing Sensor and Other Detection and Warning Systems

Individual agencies have activities under way intended to enhance enforcement capabilities through the use of static or mobile sensors and other detection devices. The Customs Service, for example, uses several "non-intrusive" detection systems, such as radiographic methods, explosive vapor and particle inspection, and radiation detection.

Valuable research and development is also underway in multiple agencies to extend such capabilities, especially in the area of non-intrusive inspection systems. There is, however, no comprehensive, prioritized plan among related agencies for critical aspects of such activities. Some agencies, like Customs, link requirements for combating terrorism to broader internal R&D agendas to get the most value out of resource funds. These processes, however, do not include a mechanism for prioritizing research and development funds for protecting our borders. Therefore, **we recommend that the Office of Homeland Security develop a coordinated, fully resourced plan for R&D and for fielding and integration of sensor and other detection and warning systems.** The advisory group, proposed in our previous recommendation, should be tasked to develop such a plan. In this way, feedback from the entities involved on technology would benefit the border security component of the overall national strategy for combating terrorism.

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[78] 14 U.S. Code, Section 89(a): "The Coast Guard may make inquiries, examinations, inspections, searches, seizures, and arrests upon the high seas and waters over which the United States has jurisdiction, for the prevention, detection, and suppression of violations of laws of the United States. For such purposes, commissioned, warrant, and petty officers may at any time go on board of any vessel subject to the jurisdiction, or to the operation of any law, of the United States, address inquiries to those on board, examine the ship's documents and papers, and examine, inspect, and search the vessel and use all necessary force to compel compliance. When from such inquiries, examination, inspection, or search it appears that a breach of the laws of the United States rendering a person liable to arrest is being, or has been committed, by any person, such person shall be arrested or, if escaping to shore, shall be immediately pursued and arrested on shore, or other lawful and appropriate action shall be taken; or, if it shall appear that a breach of the laws of the United States has been committed so as to render such vessel, or the merchandise, or any part thereof, on board of, or brought into the United States by, such vessel, liable to forfeiture, or so as to render such vessel liable to a fine or penalty and if necessary to secure such fine or penalty, such vessel or such merchandise, or both, shall be seized."

[79] Including the Departments of Justice, State, Transportation, and Commerce.

Increasing Resources for the U.S. Coast Guard

Coast Guard resources to perform its ordinary missions have been reduced in recent budget cycles, with no concomitant reduction in missions. Those missions cross a broad spectrum from vessel safety inspections, marine search and rescue, environmental protection, to navigable waters and port safety and security.

With the increased requirement for enhanced homeland security, the Coast Guard must be provided adequate resources by the Congress to accomplish these critical tasks. For example, the Coast Guard has insufficient funds to conduct port vulnerability assessments at the more than 350 U.S. ports. **We recommend that the Congress increase resources for the U.S. Coast Guard for homeland security missions.**

Expanding Cooperation with Our Border Neighbors

Canada has been a base of operations for terrorists or would-be terrorists for planning attacks against the United States. Unfortunately, the laws of Canada do not explicitly make terrorist activities a crime *per se.* As a result, Canada has been unable to take action against certain individuals who may, for example, be conspiring to perpetrate a terrorist attack against the United States. The illegal movement of people and drugs across our border with Mexico indicates the ease with which terrorists could cross into our country from the south. **We recommend that the U.S. government negotiate more comprehensive treaties and agreements for combating terrorism with Canada and Mexico.** Some agreements and protocols with both countries already exist, but more needs to be done. Country-to-country negotiations with both Canada and Mexico should be designed to strengthen laws and processes that will enhance our collective ability to deter, prevent, and respond to terrorist activities, to exchange information on terrorist activities, and to assist in the apprehension of known terrorists before they can strike.[80]

[80] On December 3, U.S. Attorney General John Ashcroft, Minister of Citizenship and Immigration of Canada, Elinor Caplan, and the Solicitor General of Canada, Lawrence MacAulay, announced a Joint Statement of Cooperation on Border Security and Regional Migration Issues that will directly support Prime Minister Chrétien and President Bush's emerging public security and border strategy. These actions focus on deterrence, detection, and prosecution of security threats, the disruption of illegal migration and the efficient management of legitimate travel. The two governments agreed to expand cooperation and collaboration in a number of immigration matters.

CHAPTER V.
ENHANCING CYBER SECURITY

Cyber attacks, regardless of origin, can be a means for disruption, destruction, even death. Whether perpetrated as the single mode of attack or in conjunction with another weapon, the effects could be substantial, even exponential. This is an exceptionally complex topic, one that spans national security, law enforcement, civil rights, and commercial and other private-sector interests. It is one for which there are no easy solutions and little historical precedent.

Civil rights considerations will be critical, as government grapples with the best means to provide adequate protections from cyber intrusions and other forms of criminal activity, at the same time attempting to safeguard individual and corporate privacy, due process requirements, and other private interests. More than 80 percent of all information systems in this country are owned by the private sector. Any solutions for improving cyber security will require an unprecedented partnership between government and private entities.

Rapid technological advances compound the problem. The imminent "convergence" of video communications (cable and satellite), telephone communications (wire and wireless), the Internet and its related systems, and other day-to-day convenience systems such as Automated Teller Machines, will increase the risk of simultaneously disrupting multiple networks and systems with a carefully engineered cyber attack.

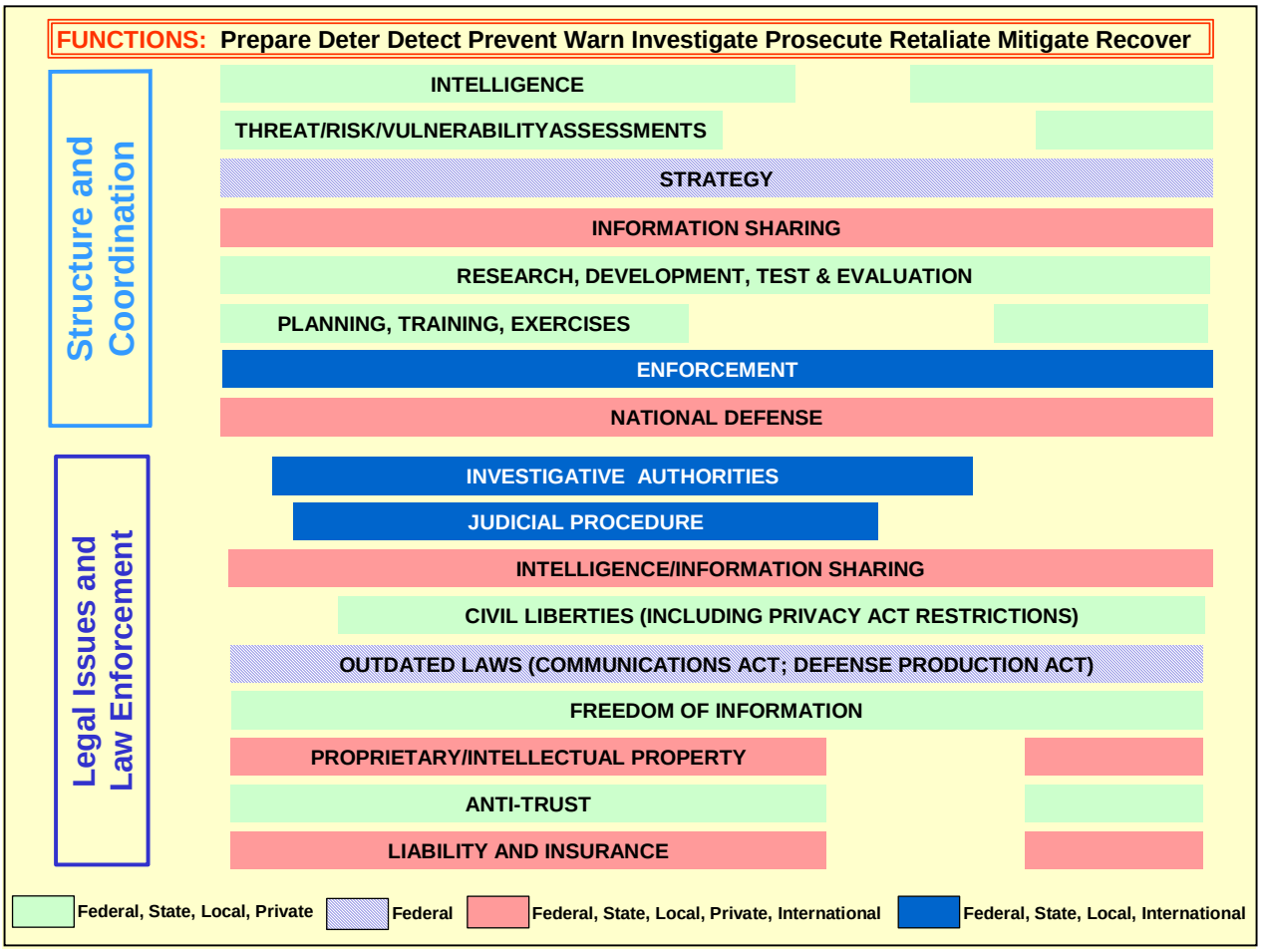

Figure 5.1. Cyber Functional Interrelationships

As Figure 5.1 attempts to illustrate, the functions are diffuse and the issues cross many jurisdictional lines. Moreover, significant resource issues need to be addressed, including insurance coverage, appropriate levels of investment in security measures, both public and private-sector research, development, testing, and evaluation, and the availability of the necessary technically-skilled people to make all of it work. Consideration should be given to creating incentives from government to the private sector to implement necessary safeguards.

Improving National Coordination

The White House recently announced new cyber security initiatives, including the creation of a Federal interagency critical infrastructure protection board.[81] That advisory panel apparently will only be the representatives of 25 Federal agencies. Any such effort should include significant representation from State and local governments and from the private sector.[82] **We recommend that the President direct that the interagency policymaking panel on critical infrastructure include representatives from State and local governments, as well as the private sector.** That forum can serve as a basis for providing recommendations for the development of a broad and comprehensive strategy for cyber security and other critical infrastructure, which is informed by the interests of all "stakeholders." It should have broad representation from the private sector and from the three levels of government, including a wide range of disciplines with relevant responsibilities for addressing prevention and response activities.

In addition, **we recommend that the Congress create an independent commission, tasked to evaluate programs designed to promote cyber security, to identify areas where requirements are not being met, to recommend strategies for better security, and to report its findings to the President and the Congress.** Such a Federal advisory body can assist materially in the development of strategies, policies, and priorities by providing an independent, objective assessment of Federal programs. That commission should be modeled on our advisory panel.

Enhancing Detection, Alert, Warning, and Response

Federal agencies, State and local governments, and numerous private-sector entities all have substantial interests in knowing that a cyber attack may occur or may already have commenced. There are major national security implications where foreign adversaries are concerned, significant law enforcement considerations where criminal conduct—including terrorist attacks—are indicated, and issues for other public and private-sector entities unrelated to either national security or law enforcement. Given the interdependency of most systems and the pervasive reliance on the Internet as a primary mechanism for the transmission of electronic communications, these varied interests will almost certainly converge if a broad-spectrum attack is launched.

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[81] Executive Order on Critical Infrastructure Protection, The White House, October 16, 2001. See Appendix S.

[82] The Executive Order only provides for "outreach to and consultation with the private sector . . . [and] outreach to State and local governments, as well as communities and representatives from academia and other relevant elements of society, " not representation on the board. A separate State, local, and private sector advisory board—the National Infrastructure Advisory Council—is being formed, but it is not clear whether that board can truly influence the policymaking process. See Section 10 of the Executive Order in Appendix S.

In our *Second Annual Report*, we identified concerns about the effectiveness of the National Infrastructure Protection Center (NIPC) at the FBI, in executing certain responsibilities for critical infrastructure alert, warning, and response coordination, including cyber attacks by terrorists. We do not question the dedication or good faith efforts by the NIPC to execute its mission; there may simply be too many obstacles that inhibit its ability to do so. Since our second report, others have expressed similar concerns—most notably the GAO. In both a formal report[83] and in testimony before the Congress,[84] the GAO has noted several factors limiting the effectiveness of the NIPC to date:

- No generally accepted methodology exists for analyzing strategic cyber-based threats.
- The NIPC has sustained prolonged leadership vacancies and does not have adequate staff expertise, in part because other participating Federal agencies have not detailed the originally anticipated number of Personnel.
- The NIPC lacks industry-specific data on such factors as critical system components, known vulnerabilities, and interdependencies.[85]

We would add at least two other factors:

- Private-sector entities and other government agencies resist providing information, some of which may be sensitive for a number of otherwise legitimate purposes, to what is perceived to be a law enforcement agency.
- Many feel that the NIPC is more interested in receiving information for law enforcement purposes than it is in sharing information that has come to its attention.

We recommend that the President establish a government-funded, not-for-profit entity that can represent the interests of all stakeholders, public and private—national security, law enforcement, other government functions, and business and industry concerns—to provide cyber detection, alert, and warning functions. That entity would serve as a "fusion center" and clearinghouse, at or near real-time, for information on impending or actual cyber attacks. That entity should be a not-for-profit organization or a consortium of not-for-profit entities with recognized expertise in the field. Graphically depicted, flow of information in and out of such an entity would resemble the following:

[83] "Critical Infrastructure Protection, Significant Challenges in Developing National Capabilities," United States General Accounting Office, GAO-01-323, April 2001. For access to the comprehensive set of GAO reports and testimony on combating terrorism, bioterrorism, and critical infrastructure protection, visit the GAO website at www.gao.gov.

[84] See, for example, GAO testimony before the Subcommittee on Technology, Terrorism, and Government Information, Committee on the Judiciary, U.S. Senate, July 25, 2001.

[85] Ibid., at pp. 4-5.

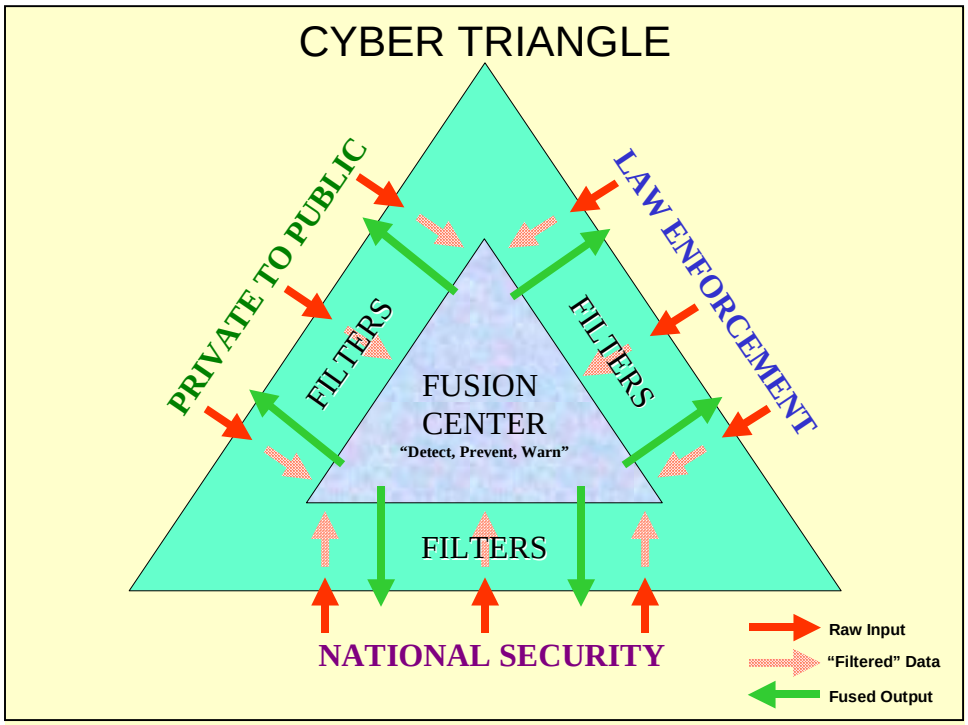

Figure 5.2. Cyber Triangle

LEGEND: The "Private to Public" category includes the broad private sector, as well as Federal, State, or local government entities not involved in law enforcement or national security activities. Public, private, or combination public-private entities, designated by respective end users, would perform the "filter" functions. "Fused output" would be provided to stakeholders as indicated by the nature of the information.

Improving Legal and Law Enforcement Processes

The law has not kept pace with rapid changes in information technology and systems, or the need for effective response against those who would exploit them. Changes are needed to such outdated legislation as the Communications Act of 1934, the Defense Production Act, the federal criminal statutes, the Freedom of Information Act, as well as others. Several Members of Congress have developed an understanding of the issues and have introduced legislation to address these issues. Progress has, however, been slow.

We recommend that the Congress and the Executive Branch convene a "summit" to address, on an urgent basis, necessary changes to a wide range of federal statutes, in order to provide necessary protection and incentives for enhancing cyber assurance. We envision Members of Congress and senior Executive Branch representatives meeting over a period of several days to craft legislative remedies. That summit should include representatives from State and local government and the private sector. On the Executive Branch side, it should involve principals from those agencies with responsibilities for executing the Federal portions of a national plan. Each committee of Congress with authorization, oversight, budget, and appropriations jurisdiction should similarly be represented. The goal of the summit should be to agree in principal, and in as much detail as feasible, the required changes to Federal law and regulation. It should also focus on the civil liberties considerations that permeate cyber security.

Federal criminal law and procedure is one specific area that requires urgent attention. Federal prosecutors and investigators are often impeded in their activities because of the lack of effective

procedures for obtaining court authority to conduct certain investigative activities where criminal cyber conduct is involved. Authority to use investigative tools for "tapping" criminal electronic transmissions or tracing electronic signatures often comes too late or not at all. There is a lack of complete understanding among many in the judiciary at large of the nature and urgency of cyber security. **We recommend that the Congress create a special "Cyber Court" patterned after the court established in the Foreign Intelligence Surveillance Act (FISA).**[86] A court dedicated to criminal cyber conduct can develop the expertise to recognize the issues and act more quickly in approving or disapproving special authority for investigative activities. Such a court is more likely to ensure that civil rights and civil liberties are fully protected. At the same time, it can more likely respond quickly enough to authorize time-sensitive actions. We envision an electronic, real-time, on-line, secure method for U.S. Attorneys anywhere in the country to contact a cyber judge on very short notice, subject to a prior, on-line expedited review (using a similar process to FISA applications) by the Department of Justice.

Fostering an Effective Research and Development Agenda

Enhanced R&D is critical to cyber security. Technology is changing so rapidly that additional near- and long-term research is required. Many Federal agencies are engaged in research, development, test, and evaluation (RDT&E) in the cyber realm. However, no single comprehensive research agenda now exists that establishes priorities, prevents unnecessary duplication, and identifies gaps in current research.

The President's Committee of Advisors on Science and Technology (PCAST) recommended in 1998 that the President direct the establishment of a national laboratory for focused R&D in the area of security of the nation's information infrastructure. While recognizing the special challenges in this arena, the President declined to implement the PCAST proposal and ordered further review.

Recent attacks on information systems[87] indicate the need for urgency. **We recommend that the Office of Homeland Security develop and implement a comprehensive plan for RDT&E to enhance cyber security.** We envision a government-funded consortium of not-for-profit entities with expertise in the field.[88] That entity can serve as the fulcrum for leveraging RDT&E resources in a manner consistent with national priorities for cyber security.

The Congress has given The Institute for Security Technology Studies (ISTS) at Dartmouth College resources to form the basis for establishing such an entity, including formal discussions with experts about the structure of such an organization; a comprehensive national needs assessment developed from a survey of stakeholders in government (Federal, State, and local), academia, and the private sector; and the development of a definitive near- and long-term agenda for RDT&E for cyber security. That institute may be the logical nucleus around which the proposed entity could be formed.

[86] 50 U.S. Code, Sections 1801–1863.
[87] The "Code Red," "SirCAM," and "Badtrans" attacks are examples.
[88] This recommendation is consistent with the comprehensive analysis, conclusions, and recommendations contained in the report, "A National R&D Institute for Information Infrastructure Protection," Institute for Defense Analysis, April 2000.

CHAPTER VI.
CLARIFYING THE ROLES AND MISSIONS OF THE MILITARY

The Armed Forces of the United States have enormous capabilities and resources that can support our nation's efforts to combat terrorism, including activities inside our own borders. It can be a critical asset for both prevention and response. As the panel has noted in prior reports, the Armed Forces has unequaled command and control capabilities, organizations trained for operations under emergency conditions, and a highly professional military leadership structure.

Notwithstanding these inherent strengths, the roles, missions, and organization of the U.S. Armed Forces to deter, prevent, or respond to a terrorist threat inside the borders of the United States remain ambiguous. The command and control of U.S. military forces for operations inside the United States is not well established. There remains a lack of detailed plans for use of forces to combat terrorism, especially inside the United States. Sufficient forces are not fully trained and are, as a result, able to provide only modest support in terrorist response situations. Until recently, there has not been a comprehensive effort on the part of our leaders to map requirements against capabilities, or to organize and train forces to meet anticipated requirements. No clear definition of "homeland security" and no precise definition of the military role in that activity have even been established.

The Department of Defense, in close coordination with the newly appointed Assistant to the President for Homeland Security, is now initiating many positive steps for better use of the military inside our borders. That close working relationship will be important in the weeks and months ahead.

The current problems exist, in part, because of an inadequate understanding of the sequence of commitment of local, State, and Federal response. State and local agencies are, moreover, not well informed about the capabilities that the Armed Forces can contribute to emergency responses, and the Armed Forces do not fully understand the capabilities and roles of State and local response entities.

> *"The level of clarity and coordination among Federal agencies is appalling, and very dysfunctional to planning at the local level. For example, it is unclear what roles the military... and others would take; it is also unclear whether or how they would cooperate with local authorities. Federal agencies have put a lot of informal 'signals' out in the communication environment, but have <u>not</u> explicitly defined their roles or proposed actions."*
>
> A local public health agency

Basic principles should guide any consideration for using the military to combat terrorism inside the United States. These principles have guided our recommendations in this report:

- Establish clear lines of responsibility, authority and accountability.
- Ensure protection of civil liberties.

- Identify required and appropriate military capabilities that can be developed and used if necessary.
- Develop detailed plans, train military units and leaders, and exercise them to obtain the required capabilities.
- Establish a reasonable budget balance that recognizes the important missions of our armed forces and requirements to provide civil support in emergency situations.

Designating a Federal Civilian Lead Agency

In the Second Annual Report, we made a categorical recommendation on the use of the military:

> "We recommend that the President always designate a Federal civilian agency other than the Department of Defense (DoD) as the Lead Federal Agency."

The panel understands that the Armed Forces are always under civilian control, as established in the United States Constitution and our laws and regulations. The President is Commander in Chief, and the Secretary of Defense and service secretaries provide immediate and continuous control of the Armed Forces. Nonetheless, the panel reaffirms the foregoing recommendation. Our rationale is simple—despite that civilian leadership, the perception will likely be that "the military" is in the lead if DoD is designated as the Lead Federal Agency.

Major issues are at stake. There are critical civil liberties implications. Coordination and prior planning are required among Federal, State, and local response agencies, including how and under what circumstances the military may be engaged. There is the simple proposition that military commanders and their subordinates should not be called on—potentially *in extremis*—without a clear understanding of response plans and without sufficient training and exercises prior to the application of military capabilities in connection with a threat or attack inside our borders, for roles and missions that may be very non-traditional for military organizations.

In this Third Annual Report, we delve into the intricacies of what form "civilian control" should take, and how to provide the mechanism for the military to become a more effective asset for responding to terrorism inside our borders. A fundamental precept to our considering this issue is that the military not be viewed as a primary resource for deterrence, prevention, or response activities inside the United States. Conditions that may exist at the time of such an attack, including one that may involve significant elements of our armed forces having been deployed to foreign soil, may limit the availability of military resources. Although State governors may employ the National Guard for combating terrorism, the Guard is also subject to Federal activation. Nevertheless, contingency plans, covering the full spectrum of the potential use of the military—to deter, prevent, and respond—must be developed, in full coordination with other agencies at the Federal, State, and local levels.

In our survey of State and local agencies, we asked the organizations what they thought the appropriate role of the military should be during a response to a terrorist incident inside the United States. Consistently, across all types of local (city and county) and state response agencies, the general consensus was that the military should perform supporting roles. Specifically, only 10 percent of the survey respondents indicated that the military should "assume the role of lead agency in a unified command." Local law enforcement and local public health departments were more likely to agree with the military's assuming a lead role; local

emergency management officials and state organizations, particularly state public health entities, were least likely to agree.

The following table shows the substantial support for the military to perform such roles as maintaining order and providing security, providing personnel and equipment, and setting up kitchens, clinics, and mass care facilities. In contrast, very few stated that the military should not perform any role.[89]

What roles do you feel would be appropriate for the *U.S. military* to play during a response to a domestic WMD incident?[90]	City and County					State		
	Fire	Law	OEM	Public Health	EMS	OEM	Public Health	EMS
Perform one or more supporting roles	96.6 (1.6)	94.9 (2.4)	94.2 (2.1)	93.9 (2.6)	93.8 (2.5)	92.5 (2.0)	100.0 (0.0)	90.6 (3.2)
Assume the role of the lead agency in a unified command	10.3 (3.9)	15.6 (3.8)	6.2 (2.6)	16.0 (3.9)	11.5 (3.3)	2.5 (1.1)	0.0 (0.0)	6.3 (2.7)
Do not perform any role	0.8 (0.8)	2.7 (1.9)	1.3 (0.8)	0.4 (0.4)	4.2 (2.1)	2.5 (1.1)	0.0 (0.0)	3.1 (1.9)

Table 6-1. Opinions on Military Roles

Understanding the Sequence of Commitment

The panel recognizes that all terrorist incidents are local, or at least will start that way. It is inherent in that concept that the initial response to an attack will come from local response entities. It is only after local capabilities are exhausted or after the incident spreads that resources from the State and then perhaps Federal level may be required. Multiple entities at the local, State, and Federal level may each have a role in combating terrorism. Sometimes these roles play out simultaneously and sometimes they are sequential, depending on the type, extent, and location of the incident. Understanding this "sequence of commitment" concept will help to place the use of the Armed Forces in perspective and may help to inform the specific capabilities that they may be expected to bring to the response effort.

When an incident occurs, local response entities will always be engaged. These "local responders" might include fire services, law enforcement, emergency medical technicians, doctors, nurses, the public health community, and non-governmental organizations within the community, such as the American Red Cross.

Second, depending on the extent of the attack and the ability of local responders (including those from supporting communities) to handle the situation, state authorities and capabilities may be engaged, including use of the National Guard under the control of a governor (its Title 32 status). At that point, state and local authorities will share responsibilities for response consistent with their authorities and capabilities. The overall management of the state's response is normally through the state office of emergency management or similar organization.

[89] This survey question did not distinguish between the National Guard and the Federal military (active duty and the Title 10 Reserve). Hence, these estimates provide a broad assessment of the role of the military.
[90] With the exception of local emergency medical service organizations, these percentages have been adjusted to represent the U.S. population of each type of organization.

Third, should a state not be able to cope fully with the crisis, state authorities may exercise agreements contained in mutual assistance compacts for support from member states.

Fourth, either simultaneous or sequentially with support from other states, a state may also ask for Federal support, from FEMA under the Federal Response Plan, from the Justice Department and its agencies, and from other Federal agencies

A commitment of the Federal Armed Forces (in Title 10 status), including the use of the Federal Reserve Component,[91] will likely occur only when all other capabilities have been or are expected to be exceeded. A request for use of the military could come from a governor, or the National Command Authority could direct its use.[92] The application of military capability could take several forms. It could be limited to small, skilled reaction teams, or it could constitute a commitment of larger structures and capabilities, including medical, transportation, supply, security, engineers, or public affairs. Nevertheless, the panel views the use of the military inside our borders, in most cases, as one of last resort.

Establishing Command Authority and Structures

Given the underlying complexities of responding to a terrorist attack, the organizational structures, the "chains of command," and the lines of communication between responders must be clear. FEMA has been designated as the Lead Federal Agency for "Consequence Management"; the FBI for "Crisis Management." However those terms may be defined in actual execution, the DoD chain of command must have positive coordination links into those agencies. In addition to these interagency links, responsibilities, authorities, and accountability must be clearly established *within* the defense structure—both the civilian and the military pieces—to ensure that the Armed Forces respond appropriately and effectively.

Section 901 of the National Defense Authorization Act for Fiscal Year 2001 (NDAA FY01),[93] required the Secretary of Defense to designate an Assistant Secretary of Defense as the senior civilian with responsibility for "the overall supervision of the Department's combating terrorism activities." That designation was made in a directive issued on March 29, 2001—the Assistant Secretary of Defense for Special Operations/Low Intensity Conflict (ASD-SO/LIC).[94] That office is being reorganized to address the expanded responsibilities. Nevertheless, on October 3, the Secretary of Defense designated the Secretary of the Army to be the interim focal point for "homeland defense" activities of DoD. An attempt to obtain congressional relief from the Section 901 requirement, in order to make that designation permanent, was reportedly not favorably received by the authorizing committees. In an extraordinary move,[95] the President has designated the Secretary of the Army as the Acting ASD-SO/LIC.

Concurrent with these events, the Secretary of Defense also has asked the Congress to authorize a new under secretary and three new assistant secretaries—presumably for "homeland security,"

[91] For example, 70 percent of the U.S. Army's deployable medical capability is in the U.S. Army Reserve—the Army's Title 10 Reserve Component.
[92] A subsequent section addresses the legal authorities for use of Federal Armed Forces inside the United States, including the "federalization" of the National Guard.
[93] HR 4205, Pub. L. 106–398. See discussion in Conference Report to accompany NDAA FY01, p. 833.
[94] Memorandum of the Deputy Secretary of Defense, Subject: Combating Terrorism, March 29, 2001.
[95] Although not entirely without precedent.

but that is not clear from the request. We are, at present, not certain of the status of that request. The panel believes, however, that the issues are so important that an under secretary position is justified. A position at the undersecretary level will foster stronger relations with the Office of Homeland Security and strengthen coordination with the military departments and the Joint Chiefs of Staff. Therefore, **we recommend that the Secretary of Defense seek and that the Congress approve the authority to establish a new under secretary position for homeland security.** This recommendation is consistent with our support of the congressional intent to centralize the policy oversight of DoD activities responsible for combating terrorism. That centralization will help alleviate much of the previous fragmentation at the senior levels within the Department of Defense and provide a single DoD "lead" with which other Federal and State agencies can work.

Additional progress has been made within the Joint Staff. The Joint Staff has recently implemented some organizational changes, specifically under the Director of Operations, J-3, to address the issues of combating terrorism. The Chairman, Joint Chiefs of Staff, has published OPLAN 0500, which fully implements the Joint Task Force-Civil Support (JTF-CS) concept, but limits its responsibilities to those involved in domestic consequence management.

Despite this progress, there are continuing issues in the uniformed military structure. In 1999, the DoD established a new headquarters for planning efforts, as well as for the command and control of subordinate military elements that provide "consequence management" support to domestic civil authorities. The Joint Task Force-Civil Support (JTF-CS) is a major subordinate command of the U.S. Joint Forces Command headquartered at Norfolk Naval Base, Virginia. But JTF-CS is limited to missions associated with "consequence management." Prior to the creation of JTF-CS, military activities to support civil authorities in most types of emergency response had previously been coordinated through the U.S. Army's Director of Military Support (DOMS)— acting as "Executive Agent" for all of the Department of Defense for such purposes—especially any military assistance for response to a natural disaster under provisions of the Stafford Act. Under the new structure, JTF-CS will direct consequence management support for terrorism, but DOMS retains its current emergency response functions. This creates two or more separate systems for providing military assistance to civil authorities. Additional military organizations may be called on to support other agencies, including the Department of Justice, in assisting with so-called "crisis management" activities. One is the Joint Special Operations Task Force under the U.S. Special Operations Command.

Therefore, even though the DoD has resources and capabilities for command, control, communications, intelligence, transportation and other logistics, and engineering and medical support that can and likely will be utilized to respond to terrorist attacks, the problem continues to be the lack of comprehensive, carefully coordinated, well-understood plans and programs for how that response might occur. Moreover, the structure and internal processes for accomplishing a DoD integrated response is still fragmented and unclear. To ensure that the full capability of the Department of Defense can be mobilized to act within a clear chain of command in the event of a terrorist attack, **we recommend that the National Command Authority establish a single, unified command and control structure to execute all functions for providing military support or assistance to civil authorities.** Such a structure could be used for support for natural disasters, counterdrug activities, combating terrorism, or civil disturbances.

Preparing the Armed Forces for Homeland Missions

U.S. Armed Forces are currently designed, equipped, and trained for combat operations, not for a response to a terrorist attack. The structure, training, and extensive operational experience of leaders at every level have prepared them and the military units they command to integrate fully all aspects of command, control, communications, and intelligence activities and to coordinate numerous supporting organizations in the performance of joint operations. This is a valued, innate capability that military formations bring to a disaster environment. Their integration and coordination experience, however, has been with similar military units rather than State and local responders. Therefore, the headquarters and units that may be called on to provide such responses in the future must plan, train, and conduct exercises accordingly.

We as a nation cannot afford to respond to terrorist attacks on our soil on an *ad hoc* basis after an attack has commenced. All interests—Federal, State, and local—must have planned, trained, and exercised together across a broad spectrum of scenarios. **We recommend that the Secretary of Defense direct the development of more detailed plans for the use of the military domestically across the spectrum of potential activities, and coordinate with State and other Federal agencies in the creation of more State- or regional-specific plans. We further recommend that the secretary direct the military departments to institute specific training in military units most likely to be involved in military support to civil authorities and to expand military involvement in related exercises with Federal, State, and local agencies.** All exercises must include comprehensive evaluations and capture lessons learned.

The Joint Staff is the logical place for planning and coordinating a military response of this nature. Giving the responsibility for these activities to the Joint Staff will provide consistency in planning, training, exercises, and, if necessary, execution of such missions.

With a unified structure; clear lines of responsibility, authority and accountability; and sound planning, realistic training, and practical exercises, the Armed Forces can provide a significant capability to the nation's efforts to combat terrorism—but this force must only be committed under the lead of a recognized Federal civilian agency.

Expanding the Role of the National Guard

The National Guard is a logical "bridge" between the military and civil authorities in responding to terrorists incidents. The National Guard, in its Title 32 or "State" status, is subject to the control of the governors. That allows the Guard to be used for purely State missions, including in some cases being free of certain limitations imposed on "Federal" military personnel. Many States have agreed to provide National Guard resources to other States in the event of an emergency, through the adoption of emergency management assistance compacts, without the requirement to "federalize" those Guard elements. National Guard units, however, may need to be reconfigured into something quite different and better suited for "homeland security" missions.

Because the National Guard is readily available to State leaders, it can provide a "near immediate" impact in meeting State support requirements in cases of various types of emergencies. Nevertheless, the National Guard generally is organized and trained for traditional combat missions. Moreover, certain support capabilities that needed to respond to terrorism inside the United States are not in the National Guard. More than two-thirds of the Army's

medical capabilities are in the Army Reserve. Military police, transportation, and communications units are disproportionately in the Title 10 Reserve versus the National Guard. Although the National Guard can be made immediately available for State use, units are frequently not appropriately organized, trained, or equipped for such missions. Given the critical nature of homeland security missions, the Department of Defense and State governors should discuss more effective ways to configure Guard units for conducting both combat and homeland security missions.

Military leaders must pay special attention to the effects of mobilizing Reserve Component units frequently. Despite laws that require job protection, many Reserve members continue to experience employment problems after release from mobilization. Moreover, frequent periods of mobilization have also affected recruiting and retention in the Reserve.

We recommend that the Secretary of Defense direct specific mission areas for the use of the National Guard for providing support to civil authorities for combating terrorism. Further, we recommend that the Secretary:

- **In coordination with State governors, assess National Guard force structure, define appropriate roles and missions, and establish units with specific capabilities for homeland security missions.**
- **Increase the percentage of full-time personnel in Guard units designated for homeland security missions and ensure that pay and benefits parallel those of active-duty service members.**
- **Direct which National Guard units will be assigned homeland security missions as their primary missions with combat missions outside the United States as secondary missions and provide resources consistent with the designated priority of their homeland missions.**
- **Direct that National Guard units with priority homeland security missions plan, train, and exercise with State and local agencies.**

Understanding Legal Authorities

There continues to be considerable misunderstanding about the legal bases for military activities inside the United States. Some believe that the provisions of the Posse Comitatus Act[96] create a significant bar to many potential activities for which the Armed Forces could be employed to combat terrorism inside our borders. There is, however, ample authority for using the military inside our borders for responding to a variety of emergencies, many of which are explicit exceptions to the strictures of the Posse Comitatus Act.

The National Guard, when serving under the control of a State governor, is generally thought to be exempt from the Posse Comitatus Act. Statutes and regulations in certain States, however, prohibit the use of the Guard for law enforcement activities. Guard units currently providing security at many of the nation's airports remain in their "State" or Title 32 status, perhaps in the belief that Posse Comitatus will universally not apply to their activities. But many States,

[96] 18 U. S. Code, Section 1385 — "Use of Army and Air Force as a posse comitatus. Whoever, except in cases and under circumstances expressly authorized by the Constitution or Act of Congress, willfully uses any part of the Army or the Air Force as a posse comitatus or otherwise to execute the laws shall be fined under this title or imprisoned not more than two years, or both."

including some that do not generally prohibit the Guard from performing a law enforcement role, have specifically prohibited them from performing those functions in their current airport missions.

As we noted in our Second Annual Report, several statutes provide for the use of the military for assistance to civil authorities in a variety of emergencies.[97] The Stafford Act[98] provides broad authority and has been invoked frequently for using the military domestically for responses to floods, earthquakes, hurricanes, wildfires, and other natural disasters. Provisions of the Stafford Act also apply to intentional acts, such as terrorism.

The Congress has also created significant authority for use of the military to suppress domestic insurrections, rebellions, and unlawful combinations and conspiracies in the various states. The Insurrection Statutes are an extension of the Constitutional mandate to protect the states against domestic violence.[99] Provisions of those statutes have been used as the basis for engaging the military to integrate schools and to respond to riots in major U.S. cities. Those statutes form a legal basis for using the military to respond to certain acts of terrorism.

Beginning in 1981, the Congress has created statutory authority for use of the military in various counterdrug operations, both inside the United States and extraterritorially.[100] Those activities include the use of military equipment and facilities and the maintenance and operations of a vast array of equipment—owned at the Federal, State, and local level. In 1988, the Congress added to this series of provisions authority for the military to operate equipment in the conduct of counter-terrorism operations domestically.[101]

Most significantly in the terrorism context, the Congress has also provided the authority for use of the military domestically to assist in combating biological and chemical terrorist incidents, which may, under certain exceptional circumstances, include direct involvement in arrests, searches, seizures, and the collection of specific intelligence[102]; and authority to provide assistance in nuclear terrorism cases, which may also include participation in arrest, search, and seizure activities.[103] Under each of these statutes, it only requires an agreement between the Attorney General and the Secretary of Defense to engage the military.

It is important that these authorities and the limitations on their use are well understood by Federal, State, and local entities that may be involved in combating terrorism, and by the uniformed military as well. For this reason, **we recommend that the Secretary of Defense publish a compendium, in layman's terms, of the statutory authorities for using the military domestically to combat terrorism, with detailed explanations about the procedures for implementing those authorities.** That knowledge should be embedded in military training and exercise, and in exercises with other Federal as well as State and local agencies.

[97] See *Second Annual Report*, Appendix R.
[98] 42 U.S. Code, Sections 5121, et seq.
[99] 10 U.S. Code, Sections 331, et seq.
[100] 10 U.S. Code, Section 124, and Sections 371, et seq.
[101] 10 U.S. Code, Section 374.
[102] 10 U.S. Code, Section 382.
[103] 18 U.S. Code, Section 831.

Fostering Better Coordination with Other Agencies

The Department of Defense has long-standing relationships with the Department of Justice and FEMA for the coordination of military support for a variety of contingencies, including natural and manmade disasters. In the area of combating terrorism, the relationships with State and local response entities is spotty. More-direct relationships can overcome misunderstandings about the potential domestic roles and missions of the military and can assist materially in better planning, training, and exercises for response operations.

Although the Department of Defense now has liaison offices in the various FEMA regions, they have not been fully effective in coordinating response plans, training, and exercises with State and local emergency management agencies. Those liaison elements—known as Emergency Preparedness Liaison Offices—can assist in the necessary planning and coordination with State emergency authorities and through those authorities with local jurisdictions, including the development of fully integrated training and exercises to validate and improve response plans. However, they must be fully resourced to do so.[104] **We recommend that the Secretary of Defense improve the full-time liaison elements located in the 10 FEMA regions and assign those elements expanded missions to enhance coordination with State and local agencies in planning, training, and exercising emergency response missions**. The coordination of plans, training, and exercise should not be limited to "consequence management" functions but should include the full spectrum of potential military activities. The panel suggests that the military liaison elements be staffed with a combination of active-duty and Title 10 Reserve personnel and National Guard personnel in a Title 32 status.

[104] We suggest that even better coordination would result if all Federal agencies with homeland security missions create or strengthen liaison elements in the FEMA regional offices.

CHAPTER VII.
PERSPECTIVES ON SEPTEMBER 11 AND ITS AFTERMATH

The vast majority of the recommendations in the previous chapters were approved prior to the attacks of September 11. Numerous lessons can, however, be learned from those attacks and from the anthrax attacks that followed.

Some of the issues addressed in this chapter are confirmatory of previous conclusions and recommendations we have made. Others will require further discussion and deliberation. They should not, therefore, be taken as definitive conclusions or recommendations but simply as initial reactions based on our training, experience, and collective views.

State and Local Capabilities

Local and state-level intra- and interstate mutual assistance is critical. Nevertheless, more can be done to plan for the integration of that assistance into resources of the jurisdiction actually attacked, especially procedures for deploying to the scene of the attack support personnel and equipment from other jurisdictions.

It is imperative that Congress and the Administration recognize the need to enhance existing capabilities of State and local emergency management entities. Those agencies have the primary responsibility to provide for the implementation of emergency management functions. The emergency management system will be more effective if those capabilities are enhanced.

Our previous recommendations for equipment standardization and interoperability—especially in communications— resonate with greater force following the experiences of recent weeks. This is especially important between non-traditional partners such as law enforcement agencies and the public health medical communities.

More planning is required for the effective integration of non-governmental and private volunteer organizations (NGOs and PVOs).

Additional “light” Urban Search and Rescue capabilities—type 2 and 3 units—are indicated.

Assistance in protecting critical infrastructure at the State and local level is required. State and local emergency response budgets cannot exclusively absorb the costs to provide sustained protection and security at those facilities.

Health and Medical

Following the September attacks on the World Trade Center, the health and medical communities in New York City mobilized quickly, initiating emergency procedures, freeing bed space for victims, calling in additional staff. More than 4,000 people received medical treatment of some type. Care must be taken, however, not to use the result of the attacks in New York City as the nationwide rule of thumb for future preparations. First, New York City is as well prepared as any city in the country—better prepared than most—to handle this type of disaster. Second, the relatively small number of people who required medical attention for major trauma or burns could well be an aberration as a result of the specific type of attack. A different type of weapon

could well have resulted in medical response capabilities being overwhelmed. More effort is required nationwide to develop "surge" capabilities for bed space in hospitals and clinics or alternate sites, additional burn treatment units, decontamination facilities, and isolation units.

The anthrax attacks have highlighted the resource limitations at the Federal, State, and local levels for responding to biological incidents. Additional investment will be required for enhanced epidemiological and laboratory capabilities—forensics, diagnostics, investigation, and surveillance—and in the development and availability of diagnostic tools (such as those needed to identify those exposed to biological agents), vaccines, antitoxins, and additional prophylaxes.

Significant coordination problems continue to exist between public health and law enforcement. As important as the law enforcement aspect of such attacks may be, public health issues must take relative priority over law enforcement issues when the two are in direct conflict.

Additional resources are required for improvement in health and medical communications, horizontally among entities at the local level and vertically from localities to States to Federal entities and the reverse. CDC and State and local public health telephone system and Website capabilities were jammed following the attacks, especially those involving anthrax. More resources are required to ensure that robust information systems are available in a crisis.

There are major personnel issues in the health and medical professions. A recruitment and retention problem of significant proportion affects public health professionals, such as epidemiologists and laboratorians, as well as traditional medical staff, including emergency medical technicians, paramedics, registered nurses, and allied health professionals. A large-scale emergency, which will require around-the-clock multiple-shift capability, would quickly overwhelm existing resources. Consideration should be given to programs, similar to those for law enforcement, to address these issues.[105]

The need for improvements in public awareness before an attack, and in the appropriate dissemination of information following an attack, is especially acute in the health and medical arena. Better advance public awareness of the causes and effects of infectious agents, such as anthrax, will lessen public overreaction that manifests itself in the form of personal stockpiles of antibiotics, the run on gas masks—which would be ineffective against many agents—and increased anxiety.

As we noted in Chapter Three, "Improving Health and Medical Capabilities," more is required to understand and deal with the psychological impact of terrorism. The anthrax attacks have highlighted the importance of procedures to identify and respond to public fear and anxiety—both rational and irrational.

Better preparation for and management of the dissemination of information and media coordination following an attack is also indicated. Public officials, who are experts in various

[105] Expanding the CDC's Epidemic Intelligence Service (the public health training program for bioterrorism), with more officers serving at the State and national level, could greatly increase our ability to respond to biological incidents.

fields and seen by the public to be credible,[106] should be identified and prepared in advance. The media would also be well advised to confirm the credentials of so-called (perhaps self-designated) experts on terrorism, especially bioterrorism.[107]

The reaction to the potential for a smallpox attack is exemplary, and deserves special comment.

The Smallpox Issue

Members of this panel are well versed in the risks posed by smallpox. Those risks—though real but, according to most experts in the field, admittedly of extremely low probability—do not justify the current reaction. A dispassionate approach is in order.

In the view of experts on our panel and others with whom we have consulted,[108] it is not necessary and may not be advisable to vaccinate the entire U.S. population before an outbreak. The strategy of "circling" or "ringing" cases with vaccination for the adjacent population was the basis for the global eradication of smallpox and is a logical basis for responding to a biological attack. A smallpox vaccine produces virtually complete immunity after a single inoculation and is effective even when given two to three days after exposure.

Sounds arguments can be made for vaccinating "emergency responders" in communities across the country, as a preemptive measure. There are currently, however, statistically significant risks in vaccinating millions of Americans before an outbreak. While the percentage risk is small, vaccinating 300 million people would likely result in a 300 to 600 deaths just from reaction to the vaccine. That figure does not take into account those who may be at risk from immunodeficiencies, such as victims of HIV. More research is required to develop a vaccine without adverse side effects.

Deliberate planning is required for the potential vaccination of large segments of our population if an outbreak does occur, including prudent increases in the stockpile of vaccines, storage and distribution, the physical aspects of vaccinating vast numbers of people, and related legal authorities.[109] Such plans, when developed, must be exercised.

Intelligence and Information Sharing

While we do not adhere to the view that there was a "total intelligence failure" leading up to September 11, there were major shortcomings, especially for intelligence collection and fusion, for many of which we have already recommended solutions. Additional effort is also required to ensure effective two-way sharing with State and local entities, and for better cooperation with the private sector, especially those in transportation, energy, finance, and communications.

We have made specific recommendations to enhance immigration and border controls. Improvements at the borders should be quickly followed by further integration of immigration and other border data with additional internal aspects of homeland security.

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[106] See Harvard School of Public Health/Robert Wood Johnson Foundation "Survey Project on Americans' Response to Biological Terrorism," *Tabulation Report*, October 24-28, 2001, available on the panel's website at www.rand.org/nsrd/terrpanel.

[107] One such "expert" called anthrax a "virus." It is bacteria and non-contagious. See Shine Testimony, p. 4.

[108] Including Dr. William Foege, who helped eradicate smallpox.

[109] See draft Executive Summary for CDC Interim Smallpox Response Plan and Guidelines, at Appendix T.

Use of the Military

We trust that the current use of National Guard personnel for duty at the nation's airports will only be, as has been stated, a temporary measure. Authorities and responsibilities for this activity are not consistent nationwide. If similar activities are envisioned for the Guard or other military elements in the long term, our recommendations for better plans, training, and exercises merit increased attention.

In any event, pay and benefits for National Guard members—including strict application and enforcement of employment protections—must apply whether Guard personnel are serving in Federal (Title 10) or State (Title 32) status.

General

We must continue to seek innovative ways to use our superior technological capability to our advantage and to deny its use to potential adversaries. Better use of technology for positive identification and for knowledge management should be at the top of the list.

Recent events have indicated that FEMA may not have the capability to conduct several emergency operations simultaneously. That capability is critical.

CHAPTER VIII.
THE ROAD AHEAD

On December 13, 2001, the U.S. House of Representatives and the United States Senate completed action on S. 1438, the National Defense Authorization Act for Fiscal Year 2002. The President is expected to sign that bill into law. Section 1514 of that Act provides for a two-year extension of the Advisory Panel. Panel members are considering several areas for future research and analysis, and subsequent conclusions and policy recommendations. Those areas include but may not be limited to the following.

State, Local, and Private

Standards. We will consider in more detail the progress that has been made in establishing national standards for equipment performance and compatibility, especially the work of the Interagency Board for Equipment Standardization and Interoperability and the National Personal Protection Technology Institute.

Continuity of government and continuity of operations. The attacks in recent weeks have shown that these issues require more in-depth consideration, especially for programs that require coordination with or assistance to the private sector.

Establishing partnerships with non-governmental entities. We will consider ways for better integration of the private sector—business, industry, and other non-governmental and private volunteer organizations (NGOs and PVOs)--with governmental entities in emergency preparations and response, including better coordination, planning, training and combined exercises.

Government protection of private-sector critical infrastructure. Issues in this area that require further attention include both the appropriate levels of government support to the private sector and methods for delivery of Federal assistance.

Information sharing *from* government *to* the private sector. In this report, we recommended areas in which the private sector could assist by providing more information already at their disposal to government entities. We now must explore the reverse of that equation, especially in the transportation, energy, finance, and communications sectors.

Direct appropriations to States. To provide appropriate Federal resources to States more effectively, the panel will consider ways and means of providing direct authorization and appropriations to the States, without the burdensome process of Federal grants.

Health and Medical

Long-term mental health and psychological issues. We have noted, both in the recommendations in the substantive chapters and in the chapter on "perspectives," our concern about these issues. We are especially concerned about the impact of such attacks, and the threat of future ones, on our children, as well as better methods for dealing with the "worried well." We will consider various coping strategies and will likely conduct case studies on systems in Israel and the United Kingdom.

Vaccines. We will consider in more detail the recommendation to create a government-owned, contractor-operated vaccine research, development, and production capability. We will also explore other areas involving vaccines for both humans and livestock. We will consider especially the prospect for the creation of a National Vaccine Authority.[110]

Agriculture and the food and water supply. We have repeatedly raised concerns about threats to agriculture. More consideration of those issues is required, and for possible threats to our food and water supplies.

Medical examiners. Too little attention has been focused on the important roles of government medical examiners and other pathologists. We will consider the need for improvements in forensics and reporting requirements and capabilities in this arena.

Public health reserve corps. We will consider the potential benefits and requirements of establishing a robust reserve of medical and health professionals that can be mobilized to respond to health and medical crises.

Use of the Military

Roles and Missions. We will continue our assessment of progress in defining and clarifying the activities of our Armed Forces inside our borders, especially the roles and missions of the National Guard.

Coordination and Other Security Issues

Positive identification. Potential systems could include a form of universal identification card, such electronic methods as palm or eye scans, or other technological capabilities.

Financial tracking. "Following the money" is an important way of discovering and preventing potential terrorist activities. Much is being done in this area following September 11 but the panel will consider other potential measures.

Strategic communications planning. We will explore potential models for providing better information to the public before, during, and after a terrorist incident—threats, hoaxes, and actual attacks.

Airline and airport security measures. The panel may undertake an assessment of the effectiveness of the measures currently being implemented as well as others that may be implemented in the future.

[110] See Appendix N for more information on this latter topic.

TABLE OF APPENDICES

APPENDIX A--ENABLING LEGISLATION

Following is an extract of the legislation, sponsored by Representative Curt Weldon of Pennsylvania, which created the Advisory Panel and provided its mandate.

An Extract of *PUBLIC LAW 105-261 (H.R. 3616, 105th Congress, 2nd Session) (October 17, 1998)*

An Act

To authorize appropriations for fiscal year 1999 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe personnel strengths for such fiscal year for the Armed Forces, and for other purposes.

SECTION 1. SHORT TITLE; FINDINGS.

a. **SHORT TITLE**-This Act may be cited as the "Strom Thurmond National Defense Authorization Act for Fiscal Year 1999."

SEC. 1405. ADVISORY PANEL TO ASSESS DOMESTIC RESPONSE CAPABILITIES FOR TERRORISM INVOLVING WEAPONS OF MASS DESTRUCTION.

a. **REQUIREMENT FOR PANEL**- The Secretary of Defense, in consultation with the Attorney General, the Secretary of Energy, the Secretary of Health and Human Services, and the Director of the Federal Emergency Management Agency, shall enter into a contract with a federally funded research and development center to establish a panel to assess the capabilities for domestic response to terrorism involving weapons of mass destruction.

b. **COMPOSITION OF PANEL; SELECTION**- (1) The panel shall be composed of members who shall be private citizens of the United States with knowledge and expertise in emergency response matters. (2) Members of the panel shall be selected by the federally funded research and development center in accordance with the terms of the contract established pursuant to subsection (a).

c. **PROCEDURES FOR PANEL**- The federally funded research and development center shall be responsible for establishing appropriate procedures for the panel, including procedures for selection of a panel chairman.

d. **DUTIES OF PANEL**- The panel shall--

1. assess Federal agency efforts to enhance domestic preparedness for incidents involving weapons of mass destruction;
2. assess the progress of Federal training programs for local emergency responses to incidents involving weapons of mass destruction;
3. assess deficiencies in programs for response to incidents involving weapons of mass destruction, including a review of unfunded communications, equipment, and planning requirements, and the needs of maritime regions;
4. recommend strategies for ensuring effective coordination with respect to Federal agency weapons of mass destruction response efforts, and for ensuring fully effective local response capabilities for weapons of mass destruction incidents; and
5. assess the appropriate roles of State and local government in funding effective local response capabilities.

e. **DEADLINE TO ENTER INTO CONTRACT**- The Secretary of Defense shall enter into the contract required under subsection (a) not later than 60 days after the date of the enactment of this Act.

f. **DEADLINE FOR SELECTION OF PANEL MEMBERS**- Selection of panel members shall be made not later than 30 days after the date on which the Secretary enters into the contract required by subsection (a).

g. **INITIAL MEETING OF THE PANEL**- The panel shall conduct its first meeting not later than 30 days after the date that all the selections to the panel have been made.

h. **REPORTS**- (1) Not later than 6 months after the date of the first meeting of the panel, the panel shall submit to the President and to Congress an initial report setting forth its findings, conclusions, and recommendations for improving Federal, State, and local domestic emergency preparedness to respond to incidents involving weapons of mass destruction. (2) Not later than December 15 of each year, beginning in 1999 and ending in 2001, the panel shall submit to the President and to the Congress a report setting forth its findings, conclusions, and recommendations for improving Federal, State, and local domestic emergency preparedness to respond to incidents involving weapons of mass destruction.

i. **COOPERATION OF OTHER AGENCIES**- (1) The panel may secure directly from the Department of Defense, the Department of Energy, the Department of Health and Human Services, the Department of Justice, and the Federal Emergency Management Agency, or any other Federal department or agency information that the panel considers necessary for the panel to carry out its duties. (2) The Attorney General, the Secretary of Defense, the Secretary of Energy, the Secretary of Health and Human Services, the Director of the Federal Emergency Management Agency, and any other official of the United States shall provide the panel with full and timely cooperation in carrying out its duties under this section.

APPENDIX B--PANEL CHAIR AND MEMBERS

NAME AND AFFILIATION	EXPERTISE
The Honorable James S. Gilmore, III, Governor of the Commonwealth of Virginia, Chair	State government
L. Paul Bremer, Corporate Executive, and Former Ambassador-at-Large for Counter-Terrorism, U.S. Department of State	Terrorism, counter-terrorism
Raymond Downey, Commander, Special Operations, City of New York Fire Department	Emergency response—local
George Foresman, Deputy State Coordinator, Department of Emergency Management, Commonwealth of Virginia	Emergency response—State
William Garrison (Major General, U.S. Army, Retired), Private Consultant, and Former Commander, U.S. Army Special Operations Command's Delta Force	Military special operations
Ellen M. Gordon, Administrator, Emergency Management Division, Department of Public Defense, State of Iowa, and President, National Emergency Management Association	Emergency response—State
James Greenleaf, Private Consultant, and Former Associate Deputy for Administration, Federal Bureau of Investigation	Law enforcement—Federal
Dr. William Jenaway, Private Consultant, and Chief of Fire and Rescue Services, King of Prussia, Pennsylvania	Emergency response—local
William Dallas Jones, Director, Office of Emergency Services, State of California	Emergency response—State
Paul M. Maniscalco, Past President, National Association of Emergency Medical Technicians, and Deputy Chief/Paramedic, City of New York Fire Department, EMSC	Emergency response—local
John O. Marsh, Jr., Attorney at Law, former Secretary of the Army, and former Member of Congress	Government structure, interagency coordination, cyber, and legal
Kathleen O'Brien, City Coordinator, City of Minneapolis, Minnesota	Municipal government
M. Patricia Quinlisk, M.D., Medical Director/State Epidemiologist, Department of Public Health, State of Iowa	Health—State

Patrick Ralston, Executive Director, Indiana State Emergency Management Agency; Executive Director, Department of Fire and Building Services; and Executive Director, Public Safety Training Institute, State of Indiana	Emergency response—State
William Reno (Lieutenant General, U.S. Army, Retired), former Senior Vice President of Operations, American Red Cross	Non-governmental organizations
Joseph Samuels, Jr., Chief of Police, Richmond, California, and Third Vice President, International Association of Chief of Police	Law enforcement—local, terrorism preparedness
Kenneth Shine, M.D., President, Institute of Medicine, The National Academies	Health—Federal
Hubert Williams, President, The Police Foundation	Law enforcement/civil liberties

NON-VOTING PARTICIPANTS

Ellen Embrey, U.S. Department of Defense Representative

Michael A. Wermuth, Senior Policy Analyst, RAND, Executive Project Director

FORMER MEMBERS

The Honorable Donald Rumsfeld, Secretary of Defense

James R. Clapper, Jr. (Lieutenant General, U.S. Air Force, Retired), Director, National Imagery and Mapping Administration; former Director, Defense Intelligence Agency, and former panel Vice Chair

James Q. Wilson, Ph.D., former Harvard and UCLA professor; Member, board of trustees, American Enterprise Institute; former member, President's Foreign Intelligence Advisory Board

Richard Falkenrath, Office of Homeland Security; former Associate Professor, John F. Kennedy School of Government, Harvard University

Ronald S. Neubauer, Chief of Police, St. Peters, Missouri, and Past President, International Association of Chiefs of Police

APPENDIX C--PERSONS INTERVIEWED

An "interview," for the purpose of this list, includes a formal presentation to members of the Advisory Panel, a formal interview by a panel member or support staff, the written submission or exchange of information, or discussions about the issues addressed in this report with a panel member or support staff.

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Department of Justice

John Sullivan
Los Angeles Sheriff's Department

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Robert Sullivan, J.D.
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Vigdor Teplitz
Office of Science and Technology Policy
The White House

The Honorable George Terwilliger, III, J.D.
White and Case

Fenton Thomas, COL, U.S. Army
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Kathleen Toomey, MD, MPH
Department of Human Resources
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David Trachtenberg
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Captain Robert West, USN
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Richard M. Wheeler, Ph.D.
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Lee Zeichner
LegalNetWorks

The Honorable James Ziglar
Commissioner
Immigration and Naturalization Service

Keith Yamanaka
Department of Human Resources
State of California

APPENDIX D--EXECUTIVE ORDER ESTABLISHING OFFICE OF HOMELAND SECURITY

the White House
President George W. Bush

For Immediate Release
Office of the Press Secretary
October 8, 2001

Executive Order Establishing Office of Homeland Security

Executive Order
Establishing the Office of Homeland Security and the Homeland Security Council

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. Establishment. I hereby establish within the Executive Office of the President an Office of Homeland Security (the "Office") to be headed by the Assistant to the President for Homeland Security.

Sec. 2. Mission. The mission of the Office shall be to develop and coordinate the implementation of a comprehensive national strategy to secure the United States from terrorist threats or attacks. The Office shall perform the functions necessary to carry out this mission, including the functions specified in section 3 of this order.

Sec. 3. Functions. The functions of the Office shall be to coordinate the executive branch's efforts to detect, prepare for, prevent, protect against, respond to, and recover from terrorist attacks within the United States.

(a) National Strategy. The Office shall work with executive departments and agencies, State and local governments, and private entities to ensure the adequacy of the national strategy for detecting, preparing for, preventing, protecting against, responding to, and recovering from terrorist threats or attacks within the United States and shall periodically review and coordinate revisions to that strategy as necessary.

(b) Detection. The Office shall identify priorities and coordinate efforts for collection and analysis of information within the United States regarding threats of terrorism against the United States and activities of terrorists or terrorist groups within the United States. The Office also shall identify, in coordination with the Assistant to the President for National Security Affairs, priorities for collection of intelligence outside the United States regarding threats of terrorism within the United States.

(i) In performing these functions, the Office shall work with Federal, State, and local agencies, as appropriate, to:

(A) facilitate collection from State and local governments and private entities of information pertaining to terrorist threats or activities within the United States;

(B) coordinate and prioritize the requirements for foreign intelligence relating to terrorism within the United States of executive departments and agencies responsible for

homeland security and provide these requirements and priorities to the Director of Central Intelligence and other agencies responsible collection of foreign intelligence;

(C) coordinate efforts to ensure that all executive departments and agencies that have intel-ligence collection responsibilities have sufficient technological capabilities and resources to collect intelligence and data relating to terrorist activities or possible terrorist acts within the United States, working with the Assistant to the President for National Security Affairs, as appropriate;

(D) coordinate development of monitoring protocols and equipment for use in detecting the release of biological, chemical, and radiological hazards; and

(E) ensure that, to the extent permitted by law, all appropriate and necessary intelligence and law enforcement information relating to homeland security is disseminated to and exchanged among appropriate executive departments and agencies responsible for homeland security and, where appropriate for reasons of homeland security, promote exchange of such information with and among State and local governments and private entities.

(ii) Executive departments and agencies shall, to the extent permitted by law, make available to the Office all information relating to terrorist threats and activities within the United States.

(c) Preparedness. The Office of Homeland Security shall coordinate national efforts to prepare for and mitigate the consequences of terrorist threats or attacks within the United States. In performing this function, the Office shall work with Federal, State, and local agencies, and private entities, as appropriate, to:

(i) review and assess the adequacy of the portions of all Federal emergency response plans that pertain to terrorist threats or attacks within the United States;

(ii) coordinate domestic exercises and simulations designed to assess and practice systems that would be called upon to respond to a terrorist threat or attack within the United States and coordinate programs and activities for training Federal, State, and local employees who would be called upon to respond to such a threat or attack;

(iii) coordinate national efforts to ensure public health preparedness for a terrorist attack, including reviewing vaccination policies and reviewing the adequacy of and, if necessary, increasing vaccine and pharmaceutical stockpiles and hospital capacity;

(iv) coordinate Federal assistance to State and local authorities and nongovernmental organizations to prepare for and respond to terrorist threats or attacks within the United States;

(v) ensure that national preparedness programs and activities for terrorist threats or attacks are developed and are regularly evaluated under appropriate standards and that resources are allocated to improving and sustaining preparedness based on such evaluations; and

(vi) ensure the readiness and coordinated deployment of Federal response teams to respond to terrorist threats or attacks, working with the Assistant to the President for National Security Affairs, when appropriate.

(d) Prevention. The Office shall coordinate efforts to prevent terrorist attacks within the United States. In performing this function, the Office shall work with Federal, State, and local agencies, and private entities, as appropriate, to:

(i) facilitate the exchange of information among such agencies relating to immigration and visa matters and shipments of cargo; and, working with the Assistant to the President for National Security Affairs, ensure coordination among such agencies to prevent the entry of terrorists and terrorist materials and supplies into the United States and facilitate removal of such terrorists from the United States, when appropriate;

(ii) coordinate efforts to investigate terrorist threats and attacks within the United States; and

(iii) coordinate efforts to improve the security of United States borders, territorial waters, and airspace in order to prevent acts of terrorism within the United States, working with the Assistant to the President for National Security Affairs, when appropriate.

(e) Protection. The Office shall coordinate efforts to protect the United States and its critical infrastructure from the consequences of terrorist attacks. In performing this function, the Office shall work with Federal, State, and local agencies, and private entities, as appropriate, to:

(i) strengthen measures for protecting energy production, transmission, and distribution services and critical facilities; other utilities; telecommunications; facilities that produce, use, store, or dispose of nuclear material; and other critical infrastructure services and critical facilities within the United States from terrorist attack;

(ii) coordinate efforts to protect critical public and privately owned information systems within the United States from terrorist attack;

(iii) develop criteria for reviewing whether appropriate security measures are in place at major public and privately owned facilities within the United States;

(iv) coordinate domestic efforts to ensure that special events determined by appropriate senior officials to have national significance are protected from terrorist attack;

(v) coordinate efforts to protect transportation systems within the United States, including railways, highways, shipping, ports and waterways, and airports and civilian aircraft, from terrorist attack;

(vi) coordinate efforts to protect United States livestock, agriculture, and systems for the provision of water and food for human use and consumption from terrorist attack; and

(vii) coordinate efforts to prevent unauthorized access to, development of, and unlawful importation into the United States of, chemical, biological, radiological, nuclear, explosive, or other related materials that have the potential to be used in terrorist attacks.

(f) Response and Recovery. The Office shall coordinate efforts to respond to and promote recovery from terrorist threats or attacks within the United States. In performing this function, the Office shall work with Federal, State, and local agencies, and private entities, as appropriate, to:

(i) coordinate efforts to ensure rapid restoration of transportation systems, energy production, transmission, and distribution systems; telecommunications; other utilities; and other critical infrastructure facilities after disruption by a terrorist threat or attack;

(ii) coordinate efforts to ensure rapid restoration of public and private critical information systems after disruption by a terrorist threat or attack;

(iii) work with the National Economic Council to coordinate efforts to stabilize United States financial markets after a terrorist threat or attack and manage the immediate economic and financial consequences of the incident;

(iv) coordinate Federal plans and programs to provide medical, financial, and other assistance to victims of terrorist attacks and their families; and

(v) coordinate containment and removal of biological, chemical, radiological, explosive, or other hazardous materials in the event of a terrorist threat or attack involving such hazards and coordinate efforts to mitigate the effects of such an attack.

(g) Incident Management. The Assistant to the President for Homeland Security shall be the individual primarily respon-sible for coordinating the domestic response efforts of all departments and agencies in the event of an imminent terrorist threat and during and in the immediate aftermath of a terrorist attack within the United States and shall be the principal point of contact for and to the President with respect to coordination of such efforts. The Assistant to the President for Homeland Security shall coordinate with the Assistant to the President for National Security Affairs, as appropriate.

(h) Continuity of Government. The Assistant to the President for Homeland Security, in coordination with the Assistant to the President for National Security Affairs, shall review plans and preparations for ensuring the continuity of the Federal Government in the event of a terrorist attack that threatens the safety and security of the United States Government or its leadership.

(i) Public Affairs. The Office, subject to the direction of the White House Office of Communications, shall coordinate the strategy of the executive branch for communicating with the public in the event of a terrorist threat or attack within the United States. The Office also shall coordinate the develop-ment of programs for educating the public about the nature of terrorist threats and appropriate precautions and responses.

(j) Cooperation with State and Local Governments and Private Entities. The Office shall encourage and invite the participation of State and local governments and private entities, as appropriate, in carrying out the Office's functions.

(k) Review of Legal Authorities and Development of Legislative Proposals. The Office shall coordinate a periodic review and assessment of the legal authorities available to executive departments and agencies to permit them to perform the functions described in this order. When the Office determines that such legal authorities are inadequate, the Office shall develop, in consultation with executive departments and agencies, proposals for presidential action and legislative proposals for submission to the Office of Management and Budget to enhance the ability of executive departments and agencies to perform those functions. The Office shall work with State and local govern-ments in assessing the adequacy of their legal authorities to permit them to detect, prepare for, prevent, protect against, and recover from terrorist threats and attacks.

(l) Budget Review. The Assistant to the President for Homeland Security, in consultation with the Director of the Office of Management and Budget (the "Director") and the heads of executive departments and agencies, shall identify programs that contribute to the Administration's strategy for homeland security and, in the development of the President's annual budget submission, shall review and provide advice to the heads of departments and agencies for such programs. The Assistant to the President for Homeland Security shall provide advice to the Director on the level and use of funding in departments and agencies for homeland security-related activities and, prior to the Director's forwarding of the proposed annual budget submission to the President for transmittal to the Congress, shall certify to the Director the funding levels that the Assistant to the President for Homeland Security believes are necessary and appropriate for the homeland security-related activities of the executive branch.

Sec. 4. Administration.

(a) The Office of Homeland Security shall be directed by the Assistant to the President for Homeland Security.

(b) The Office of Administration within the Executive Office of the President shall provide the Office of Homeland Security with such personnel, funding, and administrative support, to the extent permitted by law and subject to the availability of appropriations, as directed by the Chief of Staff to carry out the provisions of this order.

(c) Heads of executive departments and agencies are authorized, to the extent permitted by law, to detail or assign personnel of such departments and agencies to the Office of Homeland Security upon request of the Assistant to the President for Homeland Security, subject to the approval of the Chief of Staff.

Sec. 5. Establishment of Homeland Security Council.

(a) I hereby establish a Homeland Security Council (the "Council"), which shall be responsible for advising and assisting the President with respect to all aspects of homeland security. The Council shall serve as the mechanism for ensuring coordina-tion of homeland security-related activities of executive departments and agencies and effective development and implementation of homeland security policies.

(b) The Council shall have as its members the President, the Vice President, the Secretary of the Treasury, the Secretary of Defense, the Attorney General, the Secretary of Health and Human Services, the Secretary of Transportation, the Director of the Federal Emergency Management Agency, the Director of the Federal Bureau of Investigation, the Director of Central Intelligence, the Assistant to the President for Homeland Security, and such other officers of the executive branch as the President may from time to time designate. The Chief of Staff, the Chief of Staff to the Vice President, the Assistant to the President for National Security Affairs, the Counsel to the President, and the Director of the Office of Management and Budget also are invited to attend any Council meeting. The Secretary of State, the Secretary of Agriculture, the Secretary of the Interior, the Secretary of Energy, the Secretary of Labor, the Secretary of Commerce, the Secretary of Veterans Affairs, the Administrator of the Environmental Protection Agency, the Assistant to the President for Economic Policy, and the Assistant to the President for Domestic Policy shall be invited to attend meetings pertaining to their responsibilities. The heads of other executive departments and agencies and other senior officials shall be invited to attend Council meetings when appropriate.

(c) The Council shall meet at the President's direction. When the President is absent from a meeting of the Council, at the President's direction the Vice President may preside. The Assistant to the President for Homeland Security shall be responsible, at the President's direction, for determining the agenda, ensuring that necessary papers are prepared, and recording Council actions and Presidential decisions.

Sec. 6. Original Classification Authority. I hereby delegate the authority to classify information originally as Top Secret, in accordance with Executive Order 12958 or any successor Executive Order, to the Assistant to the President for Homeland Security.

Sec. 7. Continuing Authorities. This order does not alter the existing authorities of United States Government departments and agencies. All executive departments and agencies are directed to assist the Council and the Assistant to the President for Homeland Security in carrying out the purposes of this order.

Sec. 8. General Provisions.

(a) This order does not create any right or benefit, substantive or procedural, enforceable at law or equity by a party against the United States, its departments, agencies or instrumentalities, its officers or employees, or any other person.

(b) References in this order to State and local governments shall be construed to include tribal governments and United States territories and other possessions.

(c) References to the "United States" shall be construed to include United States territories and possessions.

Sec. 9. Amendments to Executive Order 12656. Executive Order 12656 of November 18, 1988, as amended, is hereby further amended as follows:

(a) Section 101(a) is amended by adding at the end of the fourth sentence: ", except that the Homeland Security Council shall be responsible for administering such policy with respect to terrorist threats and attacks within the United States."

(b) Section 104(a) is amended by adding at the end: ", except that the Homeland Security Council is the principal forum for consideration of policy relating to terrorist threats and attacks within the United States."

(c) Section 104(b) is amended by inserting the words "and the Homeland Security Council" after the words "National Security Council."

(d) The first sentence of section 104(c) is amended by inserting the words "and the Homeland Security Council" after the words "National Security Council."

(e) The second sentence of section 104(c) is replaced with the following two sentences: "Pursuant to such procedures for the organization and management of the National Security Council and Homeland Security Council processes as the President may establish, the Director of the Federal Emergency Management Agency also shall assist in the implementation of and management of those processes as the President may establish. The Director of the Federal Emergency Management Agency also shall assist in the implementation of national security emergency preparedness policy by coordinating with the other Federal departments and agencies and with State and local governments, and by

providing periodic reports to the National Security Council and the Homeland Security Council on implementation of national security emergency preparedness policy."

(f) Section 201(7) is amended by inserting the words "and the Homeland Security Council" after the words "National Security Council."

(g) Section 206 is amended by inserting the words "and the Homeland Security Council" after the words "National Security Council."

(h) Section 208 is amended by inserting the words "or the Homeland Security Council" after the words "National Security Council."

GEORGE W. BUSH
THE WHITE HOUSE,
October 8, 2001.

APPENDIX E—CITIZEN PREPAREDNESS IN WAR ON TERRORISM EXECUTIVE ORDER

the White House
President George W. Bush

For Immediate Release
Office of the Press Secretary
November 9, 2001

Citizen Preparedness in War on Terrorism Executive Order

Presidential Task Force on Citizen Preparedness in the War on Terrorism Executive Order

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to support and enhance the efforts of the American public with respect to preparedness and volunteerism in the war on terrorism, it is hereby ordered as follows:

Section 1. Establishment. There is hereby established the "Presidential Task Force on Citizen Preparedness in the War On Terrorism" (Task Force).

Sec. 2. Membership. (a) The Task Force shall be composed of the heads of the following executive branch entities, who may designate representatives from within their respective entities to assist them in their duties in connection with the Task Force: the Office of the Vice President, the Office of Homeland Security, the Domestic Policy Council, the Office of Science and Technology Policy, the Office of Management and Budget, the Department of the Treasury, the Department of Justice, the Department of Labor, the Department of Health and Human Services, the Department of Housing and Urban Development, the Department of Transportation, the Department of Energy, the Department of Veterans Affairs, the Environmental Protection Agency, the Federal Emergency Management Agency, and the Corporation for National and Community Service. The heads of other executive branch departments and agencies and other senior executive branch officials may participate in the work of the Task Force upon the invitation of the Co-Chairs.

(b) The heads of the Office of Homeland Security and the Domestic Policy Council, or their designated representatives, shall serve as Co-Chairs of the Task Force.

Sec. 3. Mission. The Task Force shall identify, review, and recommend appropriate means by which the American public can:

(a) prepare in their homes, neighborhoods, schools, places of worship, workplaces, and public places for the potential consequences of any possible terrorist attacks within the United States; and

(b) volunteer to assist or otherwise support State and local public health and safety officials and others engaged in the effort to prevent, prepare for, and respond to any possible terrorist attacks within the United States.

Sec. 4. Reporting Requirement. The Task Force shall submit its recommendations to the President within 40 days from the date of this order.

Sec. 5. Termination of Task Force. The Task Force shall terminate 30 days after submitting its report to the President.

GEORGE W. BUSH

THE WHITE HOUSE,

November 9, 2001.

APPENDIX F—HOMELAND SECURITY PRESIDENTIAL DIRECTIVE-1, ORGANIZATION AND OPERATION OF THE HOMELAND SECURITY COUNCIL

the White House
President George W. Bush

For Immediate Release
Office of the Press Secretary
October 30, 2001

Homeland Security Presidential Directive-1

October 29, 2001

SUBJECT: Organization and Operation of the Homeland Security Council

This is the first in a series of Homeland Security Presidential Directives that shall record and communicate presidential decisions about the homeland security policies of the United States.

A. Homeland Security Council

Securing Americans from terrorist threats or attacks is a critical national security function. It requires extensive coordination across a broad spectrum of Federal, State, and local agencies to reduce the potential for terrorist attacks and to mitigate damage should such an attack occur. The Homeland Security Council (HSC) shall ensure coordination of all homeland security-related activities among executive departments and agencies and promote the effective development and implementation of all homeland security policies.

B. The Homeland Security Council Principals Committee

The HSC Principals Committee (HSC/PC) shall be the senior interagency forum under the HSC for homeland security issues. The HSC/PC is composed of the following members: the Secretary of the Treasury; the Secretary of Defense; the Attorney General; the Secretary of Health and Human Services; the Secretary of Transportation; the Director of the Office of Management and Budget; the Assistant to the President for Homeland Security (who serves as Chairman); the Assistant to the President and Chief of Staff; the Director of Central Intelligence; the Director of the Federal Bureau of Investigation; the Director of the Federal Emergency Management Agency; and the Assistant to the President and Chief of Staff to the Vice President. The Assistant to the President for National Security Affairs shall be invited to attend all meetings of the HSC/PC. The following people shall be invited to HSC/PC meetings when issues pertaining to their responsibilities and expertise are discussed: the Secretary of State; the Secretary of the Interior; the Secretary of Agriculture; the Secretary of Commerce; the Secretary of Labor; the Secretary of Energy; the Secretary of Veterans Affairs; the Administrator of the Environmental Protection Agency; and the Deputy National Security Advisor for Combating Terrorism. The Counsel to the President shall be consulted regarding the agenda of HSC/PC meetings and shall attend any meeting when, in consultation with the Assistant to the President for Homeland Security, the Counsel deems it appropriate. The Deputy Director of the Office of Homeland Security shall serve as Executive Secretary of the HSC/PC. Other heads of departments and agencies and senior officials shall be invited, when appropriate.

The HSC/PC shall meet at the call of the Assistant to the President for Homeland Security, in consultation with the regular attendees of the HSC/PC. The Assistant to the President for Homeland Security shall determine the agenda, in consultation with the regular attendees, and shall ensure that all necessary papers are prepared. When global terrorism with domestic implications is on the agenda of the HSC/PC, the Assistant to the President for Homeland Security and the Assistant to the President for National Security Affairs shall perform these tasks in concert.

C. Homeland Security Council Deputies Committee

The HSC Deputies Committee (HSC/DC) shall serve as the senior sub-Cabinet interagency forum for consideration of policy issues affecting homeland security. The HSC/DC can task and review the work of the HSC interagency groups discussed below. The HSC/DC shall help ensure that issues brought before the HSC/PC or the HSC have been properly analyzed and prepared for action. The HSC/DC shall have the following as its regular members: the Deputy Secretary of the Treasury; the Deputy Secretary of Defense; the Deputy Attorney General; the Deputy Secretary of Health and Human Services; the Deputy Secretary of Transportation; the Deputy Director of the Office of Homeland Security (who serves as Chairman); the Deputy Director of Central Intelligence; the Deputy Director of the Federal Bureau of Investigation; the Deputy Director of the Federal Emergency Management Agency; the Deputy Director of the Office of Management and Budget; and the Assistant to the President and Chief of Staff to the Vice President. The Assistant to the President and Deputy National Security Advisor shall be invited to attend all meetings of the HSC/DC. The following people shall be invited to attend when issues pertaining to their responsibilities and expertise are to be discussed: the Deputy Secretary of State; the Deputy Secretary of the Interior; the Deputy Secretary of Agriculture; the Deputy Secretary of Commerce; the Deputy Secretary of Labor; the Deputy Secretary of Energy; the Deputy Secretary of Veterans Affairs; the Deputy Administrator of the Environmental Protection Agency; the Deputy National Security Advisor for Combating Terrorism; and the Special Advisor to the President for Cyberspace Security. The Executive Secretary of the Office of Homeland Security shall serve as Executive Secretary of the HSC/DC. Other senior officials shall be invited, when appropriate.

The HSC/DC shall meet at the call of its Chairman. Any regular member of the HSC/DC may request a meeting of the HSC/DC for prompt crisis management. For all meetings, the Chairman shall determine the agenda, in consultation with the regular members, and shall ensure that necessary papers are prepared.

D. Homeland Security Council Policy Coordination Committees

HSC Policy Coordination Committees (HSC/PCCs) shall coordinate the development and implementation of homeland security policies by multiple departments and agencies throughout the Federal government, and shall coordinate those policies with State and local government. The HSC/PCCs shall be the main day-to-day fora for interagency coordination of homeland security policy. They shall provide policy analysis for consideration by the more senior committees of the HSC system and ensure timely responses to decisions made by the President. Each HSC/PCC shall include representatives from the executive departments, offices, and agencies represented in the HSC/DC.

Eleven HSC/PCCs are hereby established for the following functional areas, each to be chaired by the designated Senior Director from the Office of Homeland Security:

1. Detection, Surveillance, and Intelligence (by the Senior Director, Intelligence and Detection);
2. Plans, Training, Exercises, and Evaluation (by the Senior Director, Policy and Plans);
3. Law Enforcement and Investigation (by the Senior Director, Intelligence and Detection);
4. Weapons of Mass Destruction (WMD) Consequence Management (by the Senior Director, Response and Recovery);
5. Key Asset, Border, Territorial Waters, and Airspace Security (by the Senior Director, Protection and Prevention);
6. Domestic Transportation Security (by the Senior Director, Protection and Prevention);
7. Research and Development (by the Senior Director, Research and Development);
8. Medical and Public Health Preparedness (by the Senior Director, Protection and Prevention);
9. Domestic Threat Response and Incident Management (by the Senior Director, Response and Recovery);
10. Economic Consequences (by the Senior Director, Response and Recovery); and
11. Public Affairs (by the Senior Director, Communications).

Each HSC/PCC shall also have an Executive Secretary to be designated by the Assistant to the President for Homeland Security (from the staff of the HSC). The Executive Secretary of each HSC/PCC shall assist his or her Chair in scheduling the meetings of the HSC/PCC, determining the agenda, recording the actions taken and tasks assigned, and ensuring timely responses to the central policy-making committees of the HSC system. The Chairman of each HSC/PCC, in consultation with its Executive Secretary, may invite representatives of other executive departments and agencies to attend meetings of the HSC/PCC, when appropriate.

The Assistant to the President for Homeland Security, at the direction of the President and in consultation with the Vice President, the Attorney General, the Secretary of Defense, the Secretary of Health and Human Services, the Secretary of Transportation, and the Director of the Federal Emergency Management Agency, may establish additional HSC/PCCs, as appropriate.

The Chairman of each HSC/PCC, with the agreement of its Executive Secretary, may establish subordinate working groups to assist the PCC in the performance of its duties.

The Vice President may attend any and all meetings of any entity established by or under this directive.

This directive shall be construed in a manner consistent with Executive Order 13228.

GEORGE W. BUSH

APPENDIX G—SURVEY INFORMATION

The tabs to the appendix contain detailed information on all aspects of the State and Local Responder Survey.

TAB 1— THE SURVEY INSTRUMENT

TAB 2— FIRE DEPARTMENT SURVEY

TAB 3— FIELDING PROCEDURES

TAB 4— SAMPLE DESIGN & RESPONDENT SELECTION

TAB 5— RESPONSE RATES

TAB 6—CONSTRUCTING THE SURVEY WEIGHTS

TAB 7— SECTION 5 TABULATIONS

TAB 8—SURVEY COMMENTS

TAB 1 TO APPENDIX G (Survey Information)—THE SURVEY INSTRUMENT

This appendix contains a description of the Federal Weapons of Mass Destruction Preparedness Programs Survey (FWMDPPS) instrument and an example of one particular variant of the instrument.

Instrument Format

The information collected across the various local response organizations followed a common format, as shown in the survey outline in Figure G-1-1. The survey questions were organized into five sections (1) Organizational Information, (2) Organizational Experience and Perceptions, (3) Emergency Response Planning Activities, (4) Responding to Specific WMD Terrorist Incidents, and (5) Assessment of Federal Programs. The survey's main objective was to elicit local and State responders' assessments of Federal WMD preparedness programs.
Survey variations were primarily limited to differences in question phrasing and specific response sets (e.g., lists of relevant Federal programs) specific to the respondent group. For example, when referring to a responder organization's area of responsibility, the word "State" was used for State organizations, "region" or "jurisdiction" for most local organizations, and "service area" for hospitals. More significant differences were introduced in the surveys for OEM and State-level organizations for questions about training or equipment received from the Federal government. For these organizations, additional questions were either added or the existing wording was changed to distinguish between training and equipment received for use by the organization completing the survey versus another organization within their jurisdiction. Also, hospital and public health surveys contained questions and response sets unique to each of these communities, though every effort was made to keep the various survey versions as compatible as possible.

Section Descriptions

Section 1 of the FWMDPPS included questions regarding information on the respondent's organization, including size, special capabilities or functions, personnel assignments by field, type of jurisdiction served, size of the population served, service by a 911 system, and participation in area mutual aid agreements.

Section 2 covered organizational experience and perceptions related to terrorism and incidents requiring similar scales of response (e.g., natural disasters). Respondents were asked to give their opinion regarding the likelihood of different types of terrorist incidents occurring within the United States and in their jurisdiction or region within the next five years. They also were asked to rate the likelihood of a significant natural disaster occurring within the same time period. Actual incidents of terrorism and their related hoaxes within a respondent's jurisdiction in the past five years were also recorded.

Section 3 focused on an agency's emergency response planning activities. This section surveyed the following: whether or not the agency had individuals specially assigned to management or response training, including WMD management and response; participation in Superfund Amendments and Reauthorization Act (SARA) Title 3 groups or other interagency

Section 1: Organizational Information
- Relevant organizational demographics

Section 2: Organizational Experience and Threat Perceptions
- Expectation of a terrorist incident:
  - Within the U.S. in the next five years
  - Within their jurisdiction in the next five years
- Organizational experience with actual incidents and hoaxes

Section 3: Emergency Response Planning Activities
- Organizational participation in emergency response planning
- Existence of emergency response plans
- Relevant training

Section 4: Responding to Specific Terrorist Incidents
- Measures of preparedness for incidents:
  - Conventional explosives
  - Chemical
  - Biological
  - Radiological
- Specific questions for the scenario above deemed most important by each respondent

Section 5: Assessment of Federal Programs
- Application and/or receipt of Federal support
- Evaluation of Federally sponsored exercises
- Assessment of various aspects of Federal programs
- Use of the military and cyber-terrorism

Figure G-1-1. Survey Instrument Outline

disaster preparedness committees in their area; existence, depth, and integration of the agency's written emergency response plan; participation in joint preparedness activities; percentage of personnel trained in particular areas of emergency response; access to special equipment for use in response to WMD incidents; and information related to any special units trained to respond to WMD incidents.

Section 4 contained a narrated scenario section,[111] where nearly identical questions were asked of the respondent about two to four different hypothetical WMD scenarios (conventional explosives, chemical, biological, radiological). This device was used to evaluate the thoroughness of an agency's written emergency plan in relation to specific potential terrorist incidents in addition to their ability to respond to such an event, on their own and in conjunction with other agencies. The narrative portion was created to give respondents a specific image against which to compare their policies and response capabilities, while employing a story-telling tool to engage the respondents and raise interest in the topic (and the survey) through realistic portrayals of casualties, damage, and media concerns. Agencies were also given an opportunity to rate their perceived level of readiness to respond to the type of WMD incident they perceived to be most important for their organization to prepare for.

Section 5 was designed as an assessment of Federal preparedness assistance programs. Respondents were questioned about Federal and non-Federal funding, training equipment, and/or support they had applied for; use of resources they may have received; and opinions regarding the value of programs in which they had participated. Data were also collected on factors limiting agencies' ability to participate in federally sponsored programs, and agencies' opinions

[111] See Scenarios section for an in-depth discussion regarding the construction of this piece of the instrument.

regarding the role of government in this area. Additional questions specifically addressed issues pertaining to cyber-terrorism.

In addition to these, a final section collected information on the individual completing the survey (as opposed to the organizational information collected in Section 1), and provided an opportunity for the respondent to share additional, open-ended comments and suggestions regarding Federal programs and/or any other comments the respondent wished to provide.

Scenarios

The narrative scenarios of Section 4 of the survey were designed to measure respondents' objective and self-assessed preparedness for a variety of WMD terrorist incident scenarios: conventional explosives, chemical, biological, and radiological (not all survey versions contained all four scenarios—see "Survey Variant Differences" to follow). A narrative was presented at the beginning of each subsection to introduce and describe the hypothetical WMD incident in some detail. The specificity in each narrative assured - to the extent possible in a mail survey—that all respondents shared a common notion of the scale and nature of what was meant by "WMD terrorist incident," both in the questions that followed in Section 4 and for the evaluation of Federal preparedness programs in Section 5. Although definitions and terms were spelled out on the inside cover of the survey, the scenarios helped to fix ideas and establish a baseline against which respondents' claims of preparedness could be interpreted and compared.

Because the scenarios are well defined, the survey subsequently restricts the respondent's point of view, and hence measures preparedness, to a finite subset of possible incidents. However, the specific scenarios provide a concrete definition of what that subset is. Without them, the potential for damage, loss of life, and the scale of the required response in a given WMD incident would all be left to the respondents' potentially divergent views as to what each type of incident might entail, thereby making their responses incomparable. A challenge in designing the scenarios was balancing the need to present all respondents with identical scenarios while ensuring that respondents (e.g., urban and rural locales, large metropolitan areas versus smaller communities) would not be over- or underwhelmed by the requisite response. The approach utilized was to calibrate the scale of the response according to an incident in the recent past that could have occurred anywhere: the bombing of the Murrah Federal building in Oklahoma City.

To determine the content of the scenarios, researchers reviewed recent WMD scenarios from a variety of sources: chemical, biological, and radiological (CBR) scenarios used by the DOJ's Office for State and Local Domestic Preparedness Support (OSLDPS) in its 1999 survey of first responders[112]; chemical, biological, radiological, and nuclear (CBRN) scenarios used by FEMA's Emergency Management Institute to train first responders; and scenarios culled from on-line sources and the academic literature.[113] The Emergency Management Institute's scenarios proved the most comprehensive but unfortunately too lengthy to include in whole form in the survey. In addition, some of these scenarios were not as current as others put forth in the academic

[112] DOJ, *Responding to Incidents of Domestic Terrorism: Assessing the Needs of the State and Local Jurisdictions, Phase II Report*, 1999.
[113] For example, "Smallpox: An Attack Scenario" in: *Emerging Infectious Diseases* 5(4), 1999, CDC.

literature. Thus, elements from more recent publications such as the *Journal of the American Medical Association*[114] were also incorporated into the scenario.

The scenarios were then iteratively revised with input from various subject matter experts to arrive at concise incident descriptions that provided enough information to:

- Set the scale of the incident (number of casualties, property loss, etc.);
- Mention key factors specific to the given agent that would distinguish it from an "everyday," non-WMD, non-terrorist event (e.g., secondary explosives in the conventional explosives incident, cross-contamination in the biological incident);
- Highlight the "key actors" likely to be involved (i.e., the interagency and multi-jurisdictional nature of the response, and the role that they would potentially play in these incidents).

Thus, the scenarios were specifically written so that the different types of responder groups would be able to identify how their organization might fit into the response.

Survey Variant Differences

- As was noted above, public health departments were asked to consider chemical, biological, and radiological incidents, but not conventional explosives. Because public health is less likely to have a role in the event of a conventional explosives incident, this scenario was omitted from the surveys to local and State public health departments and so these agencies were only presented with three of the scenarios (chemical, biological, radiological).
- Also as previously mentioned, hospitals were questioned about biological and chemical incidents in their narrative scenario section but not about chemical and radiological incidents, in order to keep the hospital surveys as short as possible to encourage response rates in this group.
- Public health departments were additionally questioned about in-house laboratory capabilities and their capacity to distribute information to other responder groups.
- Perceived level of readiness questions were not asked of State EMS, because virtually all are regulatory agencies rather than response coordination agencies.
- Local OEM, State OEM, and State EMS agencies were questioned about whether their jurisdiction as a whole received training or equipment from the Domestic Preparedness Program (120 Cities Program) in addition to whether their individual organizations did so. Follow-up questions for these agencies delved into the respondent's opinion of the support provided to their jurisdiction as a whole, rather than support provided specifically to their agency.
- State OEM and EMS agencies were asked to evaluate any role they may have played in administering support provided by federally sponsored programs, rather than about specific training or equipment their specific organization might have received.

[114] JAMA, May 12, 1999, Vol. 281, No. 18, consensus statements on the medical and public health management of such biological weapons as anthrax and smallpox.

Pretesting The Survey Instrument

Pretesting of the survey instrument was primarily conducted with selected experts. The appropriate questionnaire was mailed to each participating field expert with instructions to take the survey as a responder would, start-to-finish, timing their completion of each section. Pretesting was used to pinpoint and fix instrument problems, streamline questions, adjust wording to match appropriate vocabulary for each responder group, test and expand organization lists, and reduce the survey length.

Each version of the survey was tested on two to four subject matter experts. The comments of each pre-tester were incorporated into discussions with subsequent pre-testers to allow for the possibility of agreement or disagreement between pretesters on their suggestions. In each case, pretesters comments were found to be crucial to the development of the survey.

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SURVEY OF FEDERAL WEAPONS OF MASS DESTRUCTION (WMD) PREPAREDNESS PROGRAMS

Conducted by

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on behalf of

The Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction

INSTRUCTIONS

1. Please use a dark colored pen to fill out the survey.

2. Mark only **one box** or circle **one number per item**, unless otherwise instructed.

3. As the designated representative of your organization, please fill out all questions, to the best of your ability, from the perspective of your organization as a whole.

FORM: **4** *7/*

BATCH: | | | | | *8-11/*

Acronyms Used in this Survey

CDC	Centers for Disease Control and Prevention, Department of Health and Human Services
DHHS	Department of Health and Human Services
DMAT	Disaster Medical Assistance Team
DoD	Department of Defense
DOE	Department of Energy
DOJ	Department of Justice
DOT	Department of Transportation
EMS	Emergency Medical Services
EPA	Environmental Protection Agency
ER	Emergency Room
ERTP	Emergency Response Training Program, Environmental Protection Agency
FBI	Federal Bureau of Investigation, Department of Justice
FEMA	Federal Emergency Management Agency
HAZMAT	Hazardous Materials
HHS	Department of Health and Human Services
ICS	Incident Command System
LEPC	Local Emergency Planning Committee or Commission
NDMS	National Disaster Medical System
NDPO	National Domestic Preparedness Office, Federal Bureau of Investigation
NEIC	National Enforcement Investigation Center, Environmental Protection Agency
OEP	Office of Emergency Preparedness, Department of Health and Human Services
OJP	Office of Justice Programs, Department of Justice
OSLDPS	Office for State and Local Domestic Preparedness Support, Office of Justice Programs, Department of Justice
SARA	Superfund Amendments and Reauthorization Act passed by the U.S. Congress in 1986; also known as the Emergency Planning and Community Right-to-Know Act (EPCRA)
SBCCOM	U.S. Army Soldier and Biological Chemical Command
SOP	Standard Operating Procedure
USPHS	United States Public Health Service
WMD	Weapons of Mass Destruction
2-PAM	Pralidoxime chloride

Section 1:
ORGANIZATIONAL INFORMATION

1. Which of the following categories best describes your agency?

(Mark One)

1 ❒ Volunteer department only *12/*

2 ❒ Paid department only

3 ❒ Combination department (both volunteer and paid personnel)

2. Does your organization specialize in any of the following functions, in addition to its core firefighting role?

(Mark All That Apply)

1 ❒ Hazardous materials containment and/or clean-up (HAZMAT) *13/*

2 ❒ Emergency Medical Services (EMS) *14/*

0 ❒ None of the above ➡***Skip to Question 3*** *15/*

2a. Which of the following services does your organization provide regionally or to another jurisdiction as part of a mutual aid agreement?

(Mark All That Apply)

1 ❒ Hazardous materials containment and/or clean-up (HAZMAT) *16/*

2 ❒ Emergency Medical Services (EMS) *17/*

0 ❒ None of the above *18/*

3. Is there another organization that provides HAZMAT services for your area?

1 ❒ Yes *19/*

2 ❒ No

4. Is there another organization that normally provides Emergency Medical Services (EMS) for your area?

1 ❒ Yes *20/*

2 ❒ No

5. What is the size of your fire department? *(Please give your best estimate)*

- Total number of response personnel: ..... ☐☐,☐☐☐ *21-25/*
- Number of paid firefighter personnel: ..... ☐☐,☐☐☐ *26-30/*
- Number of volunteer firefighter personnel: ..... ☐☐,☐☐☐ *31-35/*
- Number of HAZMAT personnel: ..... ☐,☐☐☐ *36-39/*
- Number of EMS personnel: ..... ☐,☐☐☐ *40-43/*
- Number of total calls responded to (not including false alarms) in the last year: ..... ☐☐☐,☐☐☐ *44-49/*

6. Is your jurisdiction served by a 911 emergency dispatch system?

1 ❒ Yes ➨ ***Continue to Question 6a*** *55/*

2 ❒ No ➨ ***Skip to Question 7***

6a. Is it a consolidated 911 system?

1 ❒ Yes *56/*

2 ❒ No

7. What type of jurisdiction does your organization serve?

(Mark One)

1 ❒ City *57/*

2 ❒ City / County

3 ❒ County

4 ❒ Multi-county or regional (within your state)

5 ❒ State

6 ❒ Other *(specify)*:_____ *58/*

8. What is the size of the population your organization serves?

(Mark One)

1 ❒ 1 – 15,000 *59/*

2 ❒ 15,001 – 30,000

3 ❒ 30,001 – 65,000

4 ❒ 65,001 – 250,000

5 ❒ 250,001 – 1,000,000

6 ❒ 1,000,001 +

DEFINITIONS

For the purposes of this study, we ask you to keep the following definitions and their scope in mind when answering the remainder of the survey.

- ***Weapon of Mass Destruction (WMD)*** – A weapon of mass destruction is typically defined as a chemical, biological, radiological, or nuclear device. However, as used in this survey, it may also be *any* device capable of producing large-scale physical destruction, widespread disruption and / or mass casualties. Thus, a weapon of mass destruction may also be:
  - A conventional explosive device of sufficient magnitude to inflict massive damage or casualties, such as with the Murrah Federal Building in Oklahoma City
  - A device capable of disrupting critical societal infrastructure (for example, contaminating drinking water or agricultural products, or destroying or manipulating fuel or power distribution systems)
  - An attack on an industrial facility (not necessarily involving an actual explosive device) where the purpose is to engineer the hazardous release of a toxic substance to kill and injure surrounding populations.

- ***Terrorism*** – A criminal act of violence, or threat of violence, designed to create an atmosphere of fear and alarm and to achieve maximum publicity in order to coerce others into actions they otherwise would not undertake, or into refraining from actions that they desire to take. Terrorists are motivated by political aims, may be either lone actors or members of a group, and seek to produce effects beyond the immediate physical damage that they cause.

- ***Cyber-Terrorism*** – A criminal act involving computer systems or networks designed to cause massive disruption of physical or electronic services in order to intimidate or coerce others. Examples of cyber-terrorism include:
  - An attack against an industrial facility's communications or control systems, resulting in the release of a toxic substance
  - An attack against local responder communications and other computer systems that impairs response, in coordination with a conventional weapons attack
  - Infiltration or corruption of critical data systems (at a hospital or bank, for example) in order to impair normal operations resulting in a lack of public confidence and societal disruption.

Section 2:
ORGANIZATIONAL EXPERIENCE AND PERCEPTIONS

Throughout the rest of the questionnaire, the acronym WMD is used as shorthand for "weapons of mass destruction." The previous page of definitions explains all that we are including in this category for the purposes of this study.

Also, please keep in mind that in the following questions, "cyber-terrorism" is defined as the disruption of critical infrastructure or key information systems for more than one day.

9. How would you rate the likelihood of the following types of major terrorism incidents (e.g., more than 30 individuals with serious injuries) occurring within the United States in the next 5 years?

(Mark One Box on Each Row)

	Very Unlikely	*Somewhat Unlikely*	*Somewhat Likely*	*Very Likely*	
a. WMD chemical incident	1 ❒	2 ❒	3 ❒	4 ❒	*60/*
b. WMD biological incident	1 ❒	2 ❒	3 ❒	4 ❒	*61/*
c. WMD radiological incident	1 ❒	2 ❒	3 ❒	4 ❒	*62/*
d. Conventional explosives terrorism incident	1 ❒	2 ❒	3 ❒	4 ❒	*63/*
e. Cyber-terrorism incident	1 ❒	2 ❒	3 ❒	4 ❒	*64/*
f. Terrorism incident involving the use of military-grade weapons	1 ❒	2 ❒	3 ❒	4 ❒	*65/*

10. How would you rate the likelihood of the following types of major terrorism incidents (e.g., more than 30 individuals with serious injuries) occurring <u>within your jurisdiction or region</u> in the next 5 years?

(Mark One Box on Each Row)

	Very <u>Unlikely</u>	*Somewhat <u>Unlikely</u>*	*Somewhat <u>Likely</u>*	*Very <u>Likely</u>*	
a. WMD chemical incident	1 ❒	2 ❒	3 ❒	4 ❒	*66/*
b. WMD biological incident	1 ❒	2 ❒	3 ❒	4 ❒	*67/*
c. WMD radiological incident	1 ❒	2 ❒	3 ❒	4 ❒	*68/*
d. Conventional explosives terrorism incident	1 ❒	2 ❒	3 ❒	4 ❒	*69/*
e. Cyber-terrorism incident	1 ❒	2 ❒	3 ❒	4 ❒	*70/*
f. Terrorism incident involving the use of military-grade weapons	1 ❒	2 ❒	3 ❒	4 ❒	*71/*

11. How would you rate the likelihood of a significant natural disaster (e.g., earthquake, hurricane, tornado, flood, etc.) occurring <u>within your jurisdiction or region</u> in the next 5 years?

Very <u>Unlikely</u>	*Somewhat <u>Unlikely</u>*	*Somewhat <u>Likely</u>*	*Very <u>Likely</u>*	
1 ❒	2 ❒	3 ❒	4 ❒	*72/*

12. Have any incidents of terrorism (including hoaxes) occurred, been attempted, or threatened within your jurisdiction or region in the past 5 years that required a response by your organization?

1 ❒ Yes *(briefly describe):* _____ *73/*

_____

_____ *74/*

2 ❒ No ➡***Skip to Section 3, next page***

12a. Did any of these incidents involve the use (or threat of use) of any of the following?

(Mark All That Apply)

1 ❒ Chemical, biological, or radiological weapons *75/*

2 ❒ Conventional explosives *76/*

3 ❒ Cyber-terrorism *77/*

4 ❒ Military-grade weapons *78/*

Section 3:
EMERGENCY RESPONSE PLANNING ACTIVITIES

13. Does your organization have any individuals specifically assigned (full-time or part-time) to do emergency management or response planning?

1 ❒ Yes *79/*

2 ❒ No

14. Does your organization have any individuals specifically assigned (full-time or part-time) to do planning for WMD incidents?

1 ❒ Yes *80/*

2 ❒ No

15. Does your organization participate in a SARA Title 3 Emergency Planning Committee or Commission (LEPC) in your area?

1 ❒ Yes *81/*

2 ❒ No

16. Does an interagency disaster preparedness committee, task force, or working group (<u>not including an LEPC</u>) exist in your jurisdiction or region (whether or not your agency is a participant in it)?

1 ❒ Yes ➔ ***Continue to Question 16a*** *82/*

2 ❒ No ➔ ***Skip to Question 17***

16a. Does your organization participate in this group?

1 ❒ Yes *83/*

2 ❒ No

16b. Please indicate which organizations in your region regularly participate in this interagency disaster preparedness committee, task force, or working group:
(Mark All That Apply)

Local Organizations (city or county)

01 ❒ Board of supervisors or other elected government officials 7-8/
02 ❒ Law enforcement organizations 9-10/
03 ❒ Other fire departments 11-12/
04 ❒ Free-standing HAZMAT organizations 13-14/
05 ❒ Local hospitals or other medical institutions 15-16/
06 ❒ EMS (3rd-service, hospital-based, fire department-based, or private ambulances) 17-18/
07 ❒ Local health departments 19-20/
08 ❒ Public or private utilities (e.g., water and power) 21-22/
09 ❒ Public or private transportation organizations 23-24/
10 ❒ Office of emergency management or preparedness 25-26/
11 ❒ Surrounding mutual aid response organizations 27-28/
12 ❒ Other *(please specify)*: _____ 29-30/
31/

State Organizations

13 ❒ State office of emergency management 32-33/
14 ❒ State office of emergency medical services 34-35/
15 ❒ State law enforcement organizations 36-37/
16 ❒ State public health department 38-39/
17 ❒ State office of fire control 40-41/
18 ❒ National Guard 42-43/
19 ❒ Other *(please specify)*: _____ 44-45/
46/

Federal Organizations

20 ❒ Federal Emergency Management Agency (FEMA) 47-48/
21 ❒ Federal Bureau of Investigation (FBI) 49-50/
22 ❒ Other *(please specify)*: _____ 51-52/
53/

16c. Does this interagency disaster preparedness committee, task force, or working group address planning for <u>WMD incidents</u> specifically?

1❒ Yes *54/*

2❒ No

17. Does your organization have mutual aid agreements with other city, county, state, or regional organizations for disaster and emergency response?
(Mark All That Apply)

1❒ Yes, for disaster and emergency response in general *55/*

2❒ Yes, for WMD incidents specifically *56/*

3❒ No *57/*

18. Does your organization have a written emergency response plan?

1❒ Yes ➨ ***Continue with Question 19*** *58/*

2❒ No ➨ ***Skip to Question 20 on next page***

19. Does your organization's written emergency response plan . . .

(Please Mark One Box per Question)

a. Address operational areas and jurisdictional boundaries?	1❒ Yes	2❒ No	*59/*
b. Include mutual aid agreements to provide additional resources?	1❒ Yes	2❒ No	*60/*
c. Include a response plan for handling the media?	1❒ Yes	2❒ No	*61/*

19d. Is your organization's written emergency response plan integrated with other local, state, and federal response plans?

1❒ Yes *62/*

2❒ No

20. In the table below, please mark the appropriate boxes to indicate whether your organization participates in joint preparedness activities for natural disasters and / or WMD incidents with each of the organizations listed.

Our organization participates, at least once a year, in *joint preparedness* activities for . . .

(Please Mark All That Apply)

	Natural disasters and emergencies with:	**WMD incident response** with:	
A. Law enforcement organizations	1 ❒	2 ❒	*63-64/*
B. Other fire departments	1 ❒	2 ❒	*65-66/*
C. Free-standing HAZMAT organizations	1 ❒	2 ❒	*67-68/*
D. Local hospitals or other medical institutions	1 ❒	2 ❒	*69-70/*
E. Emergency Medical Services (EMS)	1 ❒	2 ❒	*71-72/*
F. Local health departments	1 ❒	2 ❒	*73-74/*
G. Public or private utilities (e.g., water, power)	1 ❒	2 ❒	*75-76/*
H. Public or private transportation organizations	1 ❒	2 ❒	*77-78/*
I. Office of emergency management or preparedness	1 ❒	2 ❒	*79-80/*
J. Surrounding mutual aid organizations	1 ❒	2 ❒	*81-82/*

21. What formal protocol for command and control does your organization use for large-scale incidents?

1 ❒ Incident Command System (ICS) *83/*

2 ❒ Other standardized incident command and control or management system

0 ❒ Neither of the above

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22. What percentage of your response personnel are trained in the following areas?
(Please give your best estimate)

	Percent of Response Personnel Trained	
a. Incident Command or Incident Management	☐☐☐ %	*7-9/*
b. Personal Protective Equipment Levels A or B	☐☐☐ %	*10-12/*
c. Personal Protective Equipment Level C	☐☐☐ %	*13-15/*
d. Hazardous Materials Technician / Specialist	☐☐☐ %	*16-18/*
e. WMD Awareness or Response	☐☐☐ %	*19-21/*

23. Does your organization stock or have access to any of the following types of equipment for WMD incidents?
(Mark All That Apply)

1 ❒ Monitoring and detection equipment for chemical agents *22/*

2 ❒ Monitoring and detection equipment for biological agents *23/*

3 ❒ Monitoring and detection equipment for radiological agents *24/*

4 ❒ Personal Protective Equipment (PPE) Levels A or B *25/*

5 ❒ Personal Protective Equipment (PPE) Level C *26/*

6 ❒ Medical caches and/ or antidotes for chemical agents *27/*
(e.g., atropine sulfate autoinjectors, 2-PAM, cyanide antidote kits)

7 ❒ Medical caches and/ or antidotes for WMD biological agents *28/*

24. Does your organization have any unit(s) specially trained and equipped to respond to WMD incidents?

1 ❒ Yes ➨ ***Continue with Question 24a*** *29/*

2 ❒ No ➨ ***Skip to Section 4, next page***

24a. What types of WMD incidents are they trained to respond to?

(Mark All That Apply)

1 ❒ Chemical *30/*

2 ❒ Biological *31/*

3 ❒ Radiological *32/*

4 ❒ Cyber-terrorism *33/*

5 ❒ Large-scale conventional explosives *34/*

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Section 4:
RESPONDING TO SPECIFIC WMD TERRORIST INCIDENTS

The following section presents 4 different WMD scenarios involving the use of conventional explosives and chemical, biological, and radiological weapons. Please respond to the questions that follow each scenario regarding your organization's readiness and support needs.

SCENARIO 1: CONVENTIONAL EXPLOSIVES INCIDENT

One weekday morning, a major explosion occurs in a large office building downtown, with hundreds of people reportedly inside at the time of the blast. First responders report the following:

- The blast caused major structural damage to the office building, with some floors collapsed in upon each other
- Firefighters, police, and emergency medical personnel find dozens of people stumbling from the building with mild to severe physical injuries
- Buildings as far as a 5-block radius suffered blown-out windows
- Within an hour, 337 individuals require transport for medical treatment, with an unknown number still inside
- Hundreds of lookers-on, family, co-workers, and media personnel have congregated in the area, awaiting information.

As local responders attempt to enter, they find evidence of other explosive devices in the building, forcing them to exit and fall back from the scene. As the full magnitude of the incident becomes known, first State, and then Federal agencies are called on to assist in the response. As a suspected act of terrorism, collecting and preserving evidence from the scene immediately becomes a major concern.

Please answer each of the questions below as it pertains to the above conventional explosives scenario.

25. Does your organization's written emergency plan or standard operating procedure (SOP) address response to a conventional explosives incident similar to this scenario?

1 ❒ Yes ➨ ***Continue to Question 25a*** *7/*

2 ❒ No ➨***Skip to Scenario 2***

25a. Does this emergency response plan or SOP address . . .

(Mark All That Apply)

1 ❒ how your organization would communicate with other law enforcement, fire, and HAZMAT organizations within your jurisdiction? *8/*

2 ❒ how your organization would communicate with other hospitals and public health agencies within your jurisdiction? *9/*

3 ❒ how your organization would execute a response, given the threat of a secondary explosive device? *10/*

4 ❒ how your organization would coordinate with other agencies outside of your jurisdiction? *11/*

0 ❒ None of the above *12/*

26. When was this plan exercised for a conventional explosives incident?

1 ❒ Within the last 12 months *13/*

2 ❒ Between 1-2 years ago

3 ❒ 2 or more years ago ➨ ***Skip to Scenario 2, next page***

0 ❒ This plan has never been exercised for a conventional explosives incident ➨ ***Skip to Scenario 2, next page***

27. Did this exercise for responding to a conventional explosives incident similar to this scenario test your organization's capability to . . .

(Mark All That Apply)

1 ❒ communicate with other law enforcement, fire, and HAZMAT organizations within your jurisdiction? *14/*

2 ❒ communicate with other hospitals and public health agencies within your jurisdiction? *15/*

3 ❒ execute a response, given the threat of a secondary explosive device? *16/*

4 ❒ coordinate with other agencies outside of your jurisdiction? *17/*

0 ❒ None of the above *18/*

SCENARIO 2: CHEMICAL INCIDENT

An explosion in a building with 200 people inside results in numerous injuries and some fatalities, but minimal structural damage. As first responders arrive on the scene, they observe the following:

- Twenty-five individuals have been killed by the blast
- There are more casualties than would be expected for an explosion alone
- Unlikely symptoms among the survivors include sweating, disorientation, muscle tremors, convulsions and eye pain exhibited by 145 individuals.

Soon, some of the responders also start to experience similar symptoms. A highly toxic and persistent chemical agent is suspected of having been released by the explosion. Both state and Federal emergency management officials are immediately notified. Cross-contamination becomes a major concern as victims find their way to local hospitals and responders operate in an area potentially covered with an active chemical agent. As the media quickly picks up on the story, panic begins to spread among the large crowd that has formed outside the building and in the nearby vicinity.

Please answer each of the questions below as it pertains to the above chemical scenario.

28. Does your organization's written emergency plan or standard operating procedure (SOP) address response to a chemical incident similar to this scenario?

1 ❒ Yes ➨ ***Continue to Question 28a*** *19/*

2 ❒ No ➨ ***Skip to Scenario 3***

28a. Does this emergency response plan or SOP address . . .
(Mark All That Apply)

1 ❒ how your organization would communicate with other law enforcement, fire, and HAZMAT organizations within your jurisdiction? *20/*

2 ❒ how your organization would communicate with other hospitals and public health agencies within your jurisdiction? *21/*

3 ❒ procedures for mass decontamination, specifically for a large-scale chemical incident? *22/*

4 ❒ how your organization would coordinate with other agencies outside of your jurisdiction? *23/*

0 ❒ None of the above *24/*

29. When was this plan last exercised for a chemical incident?

1 ❒ Within the last 12 months *25/*

2 ❒ Between 1-2 years ago

3 ❒ 2 or more years ago ➨ ***Skip to Scenario 3, next page***

0 ❒ This plan has never been exercised for a chemical incident ➨ ***Skip to Scenario 3, next page***

30. Did this exercise for responding to a chemical incident similar to this scenario test your organization's capability to . . .
(Mark All That Apply)

1 ❒ communicate with other law enforcement, fire, and HAZMAT organizations within your jurisdiction? *26/*

2 ❒ communicate with other hospitals and public health agencies within your jurisdiction? *27/*

3 ❒ decontaminate victims, specifically for a large-scale chemical incident? *28/*

4 ❒ coordinate with other agencies outside of your jurisdiction? *29/*

0 ❒ None of the above *30/*

SCENARIO 3: BIOLOGICAL INCIDENT

During a three-day period in July, 20 individuals present to a local hospital's emergency room complaining of fever, night sweats, headaches, coughing and joint pains. Initially, an untimely flu epidemic is suspected. However, after the third day, concern grows more acute:

- Additional patients are admitted with more severe symptoms
- Laboratory personnel who analyzed patient blood samples begin reporting similar symptoms

Several days later, ERs and physicians have seen enough cases to alert local and state public health authorities, who immediately undertake large-scale surveillance and dispatch an investigation team. The state health department also notifies the CDC at which point other Federal agencies are also alerted. It is quickly determined that all patients had visited a regional airport in the past 10 days. The Governor orders the airport closed and quarantined. Fire and HAZMAT teams report to the scene to investigate and determine if there is a continuing threat. The National Guard is called to assist police with airport closure and crowd control.

- Days later, 7 of those affected die.
- All victims' blood specimens test positive for brucellosis.

A statewide and international alert is activated urging anyone who passed through the airport to contact their local health department. News agencies report that brucellosis can be fatal, creating panic. Local ERs are flooded with patients complaining of flu-like symptoms.

Please answer each of the questions below as it pertains to the above biological scenario.

31. Does your organization's written emergency plan or standard operating procedure (SOP) address response to a biological incident similar to this scenario?

1 ❒ Yes ➨ ***Continue to Question 31a*** *31/*

2 ❒ No ➨ ***Skip to Question 34***

31a. Does this emergency response plan or SOP address . . .

(Mark All That Apply)

1 ❒ how your organization would communicate with other law enforcement, fire, and HAZMAT organizations within your jurisdiction? *32/*

2 ❒ how your organization would communicate with other hospitals and public health agencies within your jurisdiction? *33/*

3 ❒ procedures for mass decontamination, specifically for a large-scale biological incident? *34/*

4 ❒ how your organization would coordinate with other agencies outside of your jurisdiction? *35/*

5 ❒ the role of the Public Health department in your jurisdiction? *36/*

0 ❒ **None of the above** *37/*

32. When was this plan last exercised for a biological incident?

1❒ Within the last 12 months *38/*

2❒ Between 1-2 years ago

3❒ 2 or more years ago ➨ ***Skip to Question 34***

0❒ This plan has never been exercised for a biological incident ➨ ***Skip to Question 34***

33. Did this exercise for responding to a biological incident similar to this scenario test your organization's capability to . . .
(Mark All That Apply)

1❒ communicate with other law enforcement, fire, and HAZMAT organizations within your jurisdiction? *39/*

2❒ communicate with other hospitals and public health agencies within your jurisdiction? *40/*

3❒ decontaminate victims, specifically for a large-scale biological incident? *41/*

4❒ coordinate with other agencies outside of your jurisdiction? *42/*

5❒ coordinate with the Public Health department in your jurisdiction? *43/*

0❒ None of the above *44/*

34. Does your organization have procedures in place for reporting possible disease outbreaks to public health authorities in your area?

1❒ Yes *45/*

2❒ No

35. Does your organization have access to laboratory capabilities to identify a suspected biological weapon based on samples taken from individuals or those collected at the scene of an incident?

1❒ Yes *46/*

2❒ No

SCENARIO 4: RADIOLOGICAL INCIDENT

An explosion downtown on the top of a multi-storied building causes significant structural damage and starts a major fire on the upper levels. Fire and EMS personnel arrive and attempt to suppress the fire, rescue people trapped inside, and treat and transport the injured. Ambulances carry the first victims to local hospitals, while police cordon off the area.

- Hundreds were reportedly in the building at the time of the blast
- A local radio station receives a call claiming responsibility on behalf of a terrorist group, stating that the bomb released radioactive materials
- A HAZMAT team with detection capability is dispatched and confirms the bomb was a radioactive dispersion device.

Police begin to evacuate a 10-block radius around the incident site, asking residents in adjacent areas to remain indoors. News agencies quickly pick up on the story. People in and around downtown panic and flee, causing traffic gridlock and a mass exodus from the town. Since initial responders transported the first rescued victims directly to hospitals, spread of radioactive contaminants becomes a serious concern.

Please answer each of the questions below as it pertains to the above radiological scenario.

36. Does your organization's written emergency plan or standard operating procedure (SOP) address response to a radiological incident similar to this scenario?

1 ❒ Yes ➨ ***Continue to Question 36a*** *47/*

2 ❒ No ➨ ***Skip to Question 39***

36a. Does this emergency response plan or SOP address . . .

(Mark All That Apply)

1 ❒ how your organization would communicate with other law enforcement, fire, and HAZMAT organizations within your jurisdiction? *48/*

2 ❒ how your organization would communicate with other hospitals and public health agencies within your jurisdiction? *49/*

3 ❒ procedures for mass decontamination, specifically for a large-scale radiological incident? *50/*

4 ❒ how your organization would coordinate with other agencies outside of your jurisdiction? *51/*

0 ❒ **None of the above** *52/*

37. When was this plan last exercised for a radiological incident?

1❒ Within the last 12 months *53/*

2❒ Between 1-2 years ago

3❒ 2 or more years ago ➨ ***Skip to Question 39***

0❒ This plan has never been exercised for a radiological incident ➨ ***Skip to Question 39***

38. Did this exercise for responding to a radiological incident similar to this scenario test your organization's capability to . . .

(Mark All That Apply)

1❒ communicate with other law enforcement, fire, and HAZMAT organizations within your jurisdiction? *54/*

2❒ communicate with other hospitals and public health agencies within your jurisdiction? *55/*

3❒ decontaminate victims, specifically for a large-scale radiological incident? *56/*

4❒ coordinate with other agencies outside of your jurisdiction? *57/*

0❒ None of the above *58/*

39. Which of these four types of WMD incidents is <u>most important</u> for your organization to prepare for?

(Mark One Box Only)

1❑ Biological *59/*

2❑ Chemical

3❑ Conventional explosives

4❑ Radiological

40. How high a priority is it for your organization to spend resources preparing for the type of WMD incident you selected in Question 39?

1❒ High priority *60/*

2❒ Somewhat of a priority

3❒ Low priority

0❒ Not at all a priority

Considering the type of WMD incident you selected in Question 39, please rate your organization's level of readiness on a scale of 1 to 5, with 1 being INADEQUATE and 5 being EXCELLENT.

Please circle one number for each question on the 5-point scale given below.

41. Your organization's written emergency **plan** to be used during a response to an event similar to the one selected above is:

INADEQUATE				EXCELLENT	
1	2	3	4	5	*61/*

42. Your organization's **knowledge and expertise** about response to this type of event are:

INADEQUATE				EXCELLENT	
1	2	3	4	5	*62/*

43. Your organization's **equipment** to respond to this type of event is:

INADEQUATE				EXCELLENT	
1	2	3	4	5	*63/*

44. Your organization's **training** to prepare for this type of event is:

INADEQUATE				EXCELLENT	
1	2	3	4	5	*64/*

45. Your organization's ability to **communicate and coordinate** with other organizations likely to be involved in a response to this type of event is:

INADEQUATE				EXCELLENT	
1	2	3	4	5	*65/*

46. How would you rank your organization's **overall preparedness to respond** to this type of event?

INADEQUATE				EXCELLENT	
1	2	3	4	5	*66/*

47. Again, for the type of WMD incident you selected in Question 39, which of your response capabilities do you think are the weakest?

(Mark All That Apply)

01 ❑	Hazard ID and detection	*67-68/*
02 ❑	Protection of response personnel from exposure to harmful agents	*69-70/*
03 ❑	Medical treatment of victims	*71-72/*
04 ❑	Mass care (e.g., bulk distribution of food, shelter, and basic necessities)	*73-74/*
05 ❑	Decontamination of victims	*75-76/*
06 ❑	Communication / coordination with local response organizations	*77-78/*
07 ❑	Communication / coordination with state and Federal agencies	*79-80/*
08 ❑	Media and information management	*81-82/*
09 ❑	Crowd control	*83-84/*
10 ❑	Basic operations during this kind of incident	*85-86/*
00 ❑	None of the above ➨ ***Skip to Question 49***	*87-88/*

48. What item(s) would be <u>most</u> helpful to strengthen the response capabilities you indicated as weaknesses in Question 47?

(Please Mark All That Apply)

1 ❑	New or more up-to-date equipment	*89/*
2 ❑	Training courses for personnel (including "train the trainers")	*90/*
3 ❑	Exercises	*91/*
4 ❑	Better integration of preparedness activities with local response organizations	*92/*
5 ❑	Better integration of preparedness activities with state and Federal agencies	*93/*
6 ❑	Information and reference materials about responding to this kind of incident	*94/*
7 ❑	Other *(please specify)*:	*95/*

_____

_____ *96/*

49. In your opinion, which of the following relationships between local, State, and Federal organizations would provide the *most* effective unified command structure for operations during the type of WMD incident you chose in Question 39?

(Mark <u>ONE</u> Box Only)

1 ❒ Federal agencies assume the lead role, managing and directing all local, State, and Federal assets *97/*

2 ❒ State agencies assume the lead role, managing and directing local and State assets, and any Federal resources provided

3 ❒ State agencies assume the lead role once local capability is overwhelmed, but relinquish the lead to Federal agencies once State capability is overwhelmed

4 ❒ Local organizations retain the lead role throughout the response, supported by additional resources provided by State and Federal agencies

5 ❒ Local, State, and Federal organizations conduct their responses independently and do not coordinate under a unified command structure

50. In your opinion, are hospitals well-integrated with other emergency response organizations in your community in planning and preparing for incidents similar to the type of WMD incident you chose in Question 39?

1 ❒ Yes *98/*

2 ❒ No

51. In your opinion, are Public Health agencies well-integrated with other emergency response organizations in your community in planning and preparing for incidents similar to the type of WMD incident you chose in Question 39?

1 ❒ Yes *99/*

2 ❒ No

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Section 5:
ASSESSMENT OF FEDERAL PROGRAMS

52. Since 1996, has your organization <u>applied</u> for funding, training, equipment, or other WMD preparedness support available from the Federal government, regardless of whether or not you received it?

1 ❒ Yes ➨ ***Continue with Question 53*** *7/*

2 ❒ No ➨ ***Skip to Question 54***

53. How satisfied was your organization with the speed and efficiency of the application process for Federal WMD preparedness programs?

Not at All <u>*Satisfied*</u>		*Moderately* <u>*Satisfied*</u>		*Very* <u>*Satisfied*</u>	
1 ❒	2 ❒	3 ❒	4 ❒	5 ❒	*8/*

54. Since 1996, has your organization <u>received</u> any support for funding, training, equipment, or other WMD preparedness from the Federal government?

1 ❒ Yes ➨ ***Continue with Question 55*** *9/*

2 ❒ No ➨ ***Skip to Question 58***

55. Please indicate below the types of Federal support your organization has received.
(Mark All That Apply)

1 ❒ Funding *10/*

2 ❒ Equipment *11/*

3 ❒ Organization-wide training or exercises *12/*

4 ❒ Individual study materials or videos *13/*

5 ❒ Handbooks or reference materials *14/*

6 ❒ Other *(please specify)*: _____ *15/*

16/

56. How were the Federal WMD resources you received used?

1❒ Shared with other organizations in our region *17/*

2❒ Used only by our organization

57. Has your organization's participation in Federal WMD programs hindered your ability to obtain additional <u>State</u> support for WMD *or any other type* of emergency preparedness?

1❒ Yes *18/*

2❒ No

8❒ Don't know

58. Since 1996, has your organization applied to any of the non-Federal sources below for funding, training, equipment, or other support to improve your preparedness for WMD incidents?

(Mark All That Apply)

1❒ State government agencies *19/*

2❒ Local government agencies *20/*

3❒ Private sector organizations *21/*

0❒ We have not applied to any of the above for WMD preparedness support *22/*

59. Since 1996, has your office <u>requested</u> WMD preparedness assistance or support from any of the following Federal programs or offices? If so, please indicate which ones.

(Mark All That Apply)

1❒ FBI National Domestic Preparedness Office (NDPO) *23/*

2❒ DOJ Office for State and Local Domestic Preparedness Support (OSLDPS) *24/*

3❒ FEMA Emergency Management Institute or Fire Academy *25/*

4❒ CDC Bioterrorism Preparedness and Response Program *26/*

5❒ Domestic Preparedness Program (also known as the "120 Cities" Program) *27/*

6❒ Other *(please specify)*: _____ *28/*

29/

0❒ **We have not requested WMD preparedness support from these Federal programs or offices** *30/*

60. Has your organization <u>received</u> any training or equipment from the Domestic Preparedness Program ("120 Cities Program")?

1 ❒ Yes ➨ ***Continue to Question 61*** *31/*

2 ❒ No ➨ ***Skip to Question 63***

61. Please indicate how much you agree or disagree with the following statements about the <u>training</u> your organization received from the Domestic Preparedness Program. *32/*

0 ❒ We did not receive any training from the Domestic Preparedness Program ➨ ***Skip to Question* 62.**

(Circle One Choice for Each Line)

	Strongly <u>Disagree</u>		*Neither Agree Nor <u>Disagree</u>*		*Strongly <u>Agree</u>*	
a. The training significantly improved our organization's preparedness.	1	2	3	4	5	*33/*
b. The number of personnel trained was adequate for responding to future WMD incidents.	1	2	3	4	5	*34/*
c. The content of the training was relevant to our organization's WMD needs.	1	2	3	4	5	*35/*
d. The staff-hours we invested in participation were worth what our organization gained.	1	2	3	4	5	*36/*
e. The training was well-aligned with our community's local WMD preparedness strategy.	1	2	3	4	5	*37/*
f. The training will be useful to our personnel, even for incidents that do not involve WMD.	1	2	3	4	5	*38/*

62. Please indicate how much you agree or disagree with the following statements about the <u>equipment</u> your organization received from the Domestic Preparedness Program.

39/

0 ❒ We did not receive any equipment from the Domestic Preparedness Program ➨ ***Skip to Question 63***

(Circle One Choice for Each Line)

	Strongly <u>Disagree</u>		*Neither Agree Nor <u>Disagree</u>*		*Strongly <u>Agree</u>*	
a. The equipment significantly improved our organization's preparedness.	1	2	3	4	5	*40/*
b. The equipment we received was relevant to our organization's WMD needs.	1	2	3	4	5	*41/*
c. We received enough to equip an adequate number of personnel for responding to future WMD incidents.	1	2	3	4	5	*42/*
d. The cost of maintaining the equipment we received is a worthwhile use of our resources. .	1	2	3	4	5	*43/*
e. The equipment will be useful to our personnel, even for incidents that do not involve WMD.	1	2	3	4	5	*44/*

63. Since 1996, has your organization participated in any other Federally-sponsored programs for funding, equipment, training, or other WMD preparedness support? If so, please indicate which ones:

(Mark All That Apply)

01 ❒	OJP First Responder Equipment Acquisition Program	*45-46/*
02 ❒	OJP Municipal Fire and EMS Equipment and Training Program	*47-48/*
03 ❒	NDPO Equipment Research and Development Program	*49-50/*
04 ❒	OJP Anti-Terrorism State and Local Training Grants	*51-52/*
05 ❒	OSLDPS training (DOJ-sponsored)	*53-54/*
06 ❒	FEMA Emergency Management Institute course(s) (WMD-related only)	*55-56/*
07 ❒	National Fire Academy Emergency Response to Terrorism course(s)	*57-58/*
08 ❒	U.S. Army Chemical School (USACLMS) Training Program	*59-60/*
09 ❒	DOE Training for Radiological Emergencies	*61-62/*
10 ❒	New Mexico Tech's Incident Response to Terrorist Bombings course	*63-64/*
11 ❒	EPA Emergency Response Training Program (ERTP)	*65-66/*
12 ❒	Other *(specify)* : _____	*67-68/ 69/*
00 ❒	None of the above ➨ ***Skip to Question 67***	*70-71/*

64. Which of the programs listed above did your organization <u>most recently</u> participate in? (If you cannot determine which program you participated in most recently, please choose any one of the programs you selected above.) Please write the name of this program in the space below.

Name of program: _____ *72-73/*

65. If your organization received <u>training</u> from the program you listed in Question 64, please indicate how much you agree or disagree with the following statements about this training:

0 ❒ We did not receive any training from this program ➨ ***Skip to Question 66*** *74/*

(Circle One Choice for Each Line)

		Neither Strongly <u>Disagree</u>		*Agree Nor <u>Disagree</u>*		*Strongly <u>Agree</u>*	
a.	The training significantly improved our organization's preparedness.	1	2	3	4	5	*75/*
b.	The number of personnel trained was adequate for responding to future WMD incidents.	1	2	3	4	5	*76/*
c.	The content of the training was relevant to our organization's WMD needs.	1	2	3	4	5	*77/*
d.	The investment of staff-hours due to participation was worth what our organization gained. ….....	1	2	3	4	5	*78/*
e.	The training was well-aligned with our community's local WMD preparedness strategy. .	1	2	3	4	5	*79/*
f.	The training will be useful to our personnel, even for incidents that do not involve WMD.	1	2	3	4	5	*80/*

66. If your organization received any <u>equipment</u> from the program you listed in Question 64, please indicate how much you agree or disagree with the following statements about that equipment:

0❒ We did not receive any equipment from this program ➨ ***Skip to Question 67*** *81/*

(Circle One Choice for Each Line)

	Strongly Disagree		***Neither Agree Nor Disagree***		***Strongly Agree***	
a. The equipment significantly improved our organization's preparedness.	1	2	3	4	5	*82/*
b. The equipment is relevant to our organization's WMD needs.	1	2	3	4	5	*83/*
c. We received enough to equip an adequate number of personnel for responding to future WMD incidents.	1	2	3	4	5	*84/*
d. The cost of maintaining the equipment is worth the investment.	1	2	3	4	5	*85/*
e. The equipment will be useful to our personnel, even for incidents that do not involve WMD.	1	2	3	4	5	*86/*

67. In general, what factors limit your organization's ability to participate in Federally-sponsored <u>training</u> programs?

(Mark All That Apply)

1❒ Not eligible to participate in these programs *87/*

2❒ Unaware of Federal training programs *88/*

3❒ Content is not relevant to our organization's needs *89/*

4❒ Time commitment is excessive *90/*

5❒ Training is not scheduled during times when our personnel can attend *91/*

6❒ Programs are poorly organized and / or difficult to understand *92/*

7❒ Cost of participating is excessive *93/*

8❒ Our organization's preparedness would not be improved through participation *94/*

9❒ We have other more important emergency preparedness responsibilities to worry about *95/*

0❒ None of the above *96/*

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68. In general, what factors limit your organization's ability to participate in Federally-sponsored <u>equipment</u> programs?

(Mark All That Apply)

1 ❒ Not eligible to participate in these programs *7/*

2 ❒ Unaware of Federal equipment programs *8/*

3 ❒ The equipment made available is not relevant to our organization's needs *9/*

4 ❒ Programs are poorly organized and / or difficult to understand *10/*

5 ❒ Application process is too involved *11/*

6 ❒ Cost of participating is excessive *12/*

7 ❒ Our organization's preparedness would not be improved through participation *13/*

8 ❒ We have other more important emergency preparedness responsibilities to worry about *14/*

0 ❒ **None of the above** *15/*

69. Since 1996, has your organization participated in or conducted any <u>exercises</u> for WMD response in which a Federal agency:

(Mark All That Apply)

1 ❒ helped organize or coordinate the exercise? *16/*

2 ❒ provided funding to the participating organization(s)? *17/*

3 ❒ participated in the actual exercise? *18/*

0 ❒ None of the above ➨ ***Skip to Question 71*** *19/*

70. Please indicate how much you agree or disagree with the following statements about <u>exercises</u> your organization participated in or conducted in which a Federal agency or organization was involved.

(Circle One Choice for Each Line)

	Strongly <u>Disagree</u>		*Neither Agree <u>Nor Disagree</u>*		*Strongly <u>Agree</u>*	
a. Federal participation helped make the exercise more realistic.	1	2	3	4	5	*20/*
b. Without Federal participation we probably would not have participated in the exercise.	1	2	3	4	5	*21/*
c. Federal involvement helped us test and / or improve our capabilities more than we would have otherwise	1	2	3	4	5	*22/*

71. Since 1996, has your organization used or obtained information or technical assistance for WMD preparedness or response from any of the following Federally-sponsored resources?

(Mark All That Apply)

01 ❒	Chemical Weapons Improved Response Program (CW IRP)	*23-24/*
02 ❒	Biological Weapons Improved Response Program (BW IRP)	*25-26/*
03 ❒	CDC's Health Alert Network (HAN)	*27-28/*
04 ❒	FBI's National Domestic Preparedness Office (NDPO)	*29-30/*
05 ❒	FEMA Rapid Response Information System (RRIS)	*31-32/*
06 ❒	Chemical and Biological (CB) Hotline	*33-34/*
07 ❒	DOT Emergency Response Guidebook	*35-36/*
08 ❒	DoD Chemical and Biological Information Analysis Center (CBIAC)	*37-38/*
09 ❒	DoD Consequence Management Interoperability Services (CMI)	*39-40/*
10 ❒	OSLDPS Technical Assistance Program (DOJ-sponsored)	*41-42/*
11 ❒	Other *(specify)*:_____	*43-44/ 45/*
00 ❒	**We have not used or obtained information or technical assistance from any of the above**	*46-47/*

72. Does your organization have formal procedures in place to coordinate with any of the following Federally-sponsored special units in the event of a WMD incident? If so, please indicate which ones:

(Mark All That Apply)

01 ❒	HHS Metropolitan Medical Strike System	*48-49/*
02 ❒	National Guard Weapons of Mass Destruction Civil Support Teams	*50-51/*
03 ❒	EPA's Environmental Response Team	*52-53/*
04 ❒	EPA's Radiological Response Team	*54-55/*
05 ❒	DoD U.S. Marine Corps Chemical Biological Incident Response Force (CBIRF)	*56-57/*
06 ❒	NDMS National Medical Response Team – Weapons of Mass Destruction (NDMS NMRT)	*58-59/*
07 ❒	DOE Nuclear Emergency Search Team (NEST)	*60-61/*
08 ❒	DOE Nuclear Incident Team	*62-63/*
09 ❒	DOE Nuclear / Radiological Advisory Team	*64-65/*
10 ❒	U.S. Army Chemical / Biological Rapid Response Team (C/B – RRT)	*66-67/*
11 ❒	Other *(specify)*: _____	*68-69/*
		70/
00 ❒	**We do not have any formal procedures in place for coordinating with these special units**	*71-72/*

Please indicate how much you agree or disagree with the following statements:

73. Federal WMD preparedness funding that is being distributed through state governments is reaching local organizations and communities with the greatest need.

Strongly Disagree	*Disagree*	*Neither Agree Nor Disagree*	*Agree*	*Strongly Agree*	
1 ❒	2 ❒	3 ❒	4 ❒	5 ❒	*73/*

74. WMD preparedness funding being distributed by the Federal government directly to local communities and local responders is reaching the organizations and communities with the greatest need.

Strongly Disagree	*Disagree*	*Neither Agree Nor Disagree*	*Agree*	*Strongly Agree*	
1 ❒	2 ❒	3 ❒	4 ❒	5 ❒	*74/*

75. Federal Government programs for improving local responder WMD preparedness . . .

(Circle One Choice for Each Line)

	Strongly Disagree		*Neither Agree Nor Disagree*		*Strongly Agree*	
a. are carefully coordinated and well-organized	1	2	3	4	5	*75/*
b. are flexible enough to allow our organization to use Federal funding and resources as we see fit	1	2	3	4	5	*76/*
c. are taking funding and resources away from more important priorities	1	2	3	4	5	*77/*
d. are focused on highly unlikely scenarios at the expense of more likely scenarios	1	2	3	4	5	*78/*
e. should provide threat and risk assessment information to local response organizations	1	2	3	4	5	*79/*
f. are so numerous that we have difficulty in figuring out what is relevant to our organization ..	1	2	3	4	5	*80/*
g. are of little use to our organization	1	2	3	4	5	*81/*
h. fit well with our community's local preparedness strategy	1	2	3	4	5	*82/*
i. should involve dedicated Federal assets so that local response organizations can concentrate on their primary mission	1	2	3	4	5	*83/*
j. should provide intelligence about terrorist activities to local response organizations	1	2	3	4	5	*84/*
k. should promote research and development of new technologies to combat terrorism.....	1	2	3	4	5	*85/*
l. should involve better coordination between the Federal Government and local responders	1	2	3	4	5	*86/*
m. should help our organization strengthen the security of our computer systems against cyber-terrorist attacks	1	2	3	4	5	*87/*

76. What is the *single most important* way that the Federal government can support the efforts of local organizations like yours to improve their WMD preparedness?

(Mark <u>ONE</u> Box Only) *88/*

1 ❒ Direct financial support

2 ❒ Equipment procurement

3 ❒ Training or training aids

4 ❒ Exercise coordination and support

5 ❒ Distribution of WMD technical information

6 ❒ Research and development on WMD preparedness and response

7 ❒ Outreach to state and local organizations

8 ❒ Dissemination of intelligence data

9 ❒ No improvement needed

0 ❒ Other *(specify)*:_____ *89/*

77. What roles do you feel would be appropriate for the U.S. military to play <u>during a response</u> to a domestic WMD incident?

(Mark All That Apply)

1 ❒ Maintain order and / or provide security *90/*

2 ❒ Advise other response organizations on technical and / or logistical matters *91/*

3 ❒ Conduct needs assessments to determine what kind of response is required *92/*

4 ❒ Provide personnel and equipment to support local, State, and / or Federal agencies *93/*

5 ❒ Set up kitchens, clinics, and mass care facilities for victims and relief workers *94/*

6 ❒ Assume the role of lead agency in a unified command *95/*

7 ❒ No form of participation by the military would be appropriate *96/*

8 ❒ Other *(specify)*:_____ *97/*
98/

The following questions deal with responding to incidents of cyber-terrorism. For the purposes of this study, a cyber-terrorism incident is defined as involving the disruption of critical infrastructure or key information systems <u>for more than 1 day</u>.

78. Do any of your organization's critical response functions (e.g., command, control, communications, dispatch) depend on computer systems?

1 ❒ Yes ➨ ***Continue to Question 79*** *7/*

2 ❒ No ➨ ***Skip to Question 80***

79. Have any of these critical computer systems ever been the target of a criminal attempt to:

(Mark All That Apply)

1 ❒ gain unauthorized access? *8/*

2 ❒ damage or impair system functioning or operability? *9/*

3 ❒ Other *(please specify)*: _____ *10/ 11/*

0 ❒ **Our computer systems have not been targeted in this way, to our knowledge.** *12/*

80. Has your organization ever requested assistance from the FBI, including the FBI's Regional Computer Crime Squads, for any of the following:

(Mark All That Apply)

1 ❒ to report, investigate, or seek assistance after a computer crime was committed against your organization? *13/*

2 ❒ to request assistance in order to strengthen the security of your organization's computer systems? *14/*

0 ❒ None of the above *15/*

ADDITIONAL COMMENTS

81. Do you personally serve a specific WMD role within your organization?

1❒ Yes *(briefly describe)* : _____ *16/*

_____ *17/*

2❒ No

Thank you for taking the time to complete this survey. If this questionnaire did not address all of the WMD-related issues of importance to your organization, please use this space or attach additional pages to add comments or clarifications.

Does your organization have other suggestions for changes or improvements in *Federal programs* for WMD preparedness that this survey has not covered?

_____ *18/*

_____

_____

_____

_____

_____

_____

Has your organization's experiences or challenges in preparing for domestic terrorism incidents involving Weapons of Mass Destruction resulted in other lessons learned about specific Federal government WMD programs or agencies not addressed in this survey?

_____ *19/*

_____

_____

_____

_____

POINT OF CONTACT FOR MATTERS RELATED TO THIS SURVEY:

Your Name: _____

Position Title: _____

Title of organization: _____

Address: _____
Street

_____
City *State* *Zip Code*

E-Mail: _____

Phone: (_____) _____-_____

Fax: (_____) _____-_____

Thank you for completing this important survey. Please return your completed survey in the business reply envelope provided. If you have any questions regarding this study, please call Dr. Ron Fricker or Dr. Lois Davis at R, tel. 888-767-4758, or feel free to e-mail us at (Ron_Fricker@rand.org; or Lois_Davis@rand.org).

TAB 3 TO APPENDIX G (Survey Information)—FIELDING PROCEDURES

FIELDING PROCEDURES

This appendix describes the procedures used to pretest and field the Federal Weapons of Mass Destruction Preparedness Programs Survey (FWMDPPS). An outline of the major fielding steps that were implemented includes the following: a letter sent one week in advance of the survey mailing; inclusion of a motivating cover letter and appropriate incentive with the survey mailing; telephone follow-up to assure arrival of the survey and emphasize the importance of the study; establishing a toll-free 800 number to field respondent questions; follow-up postcard reminders post survey mailing; the mailing of a second, replacement survey; and lastly, a final telephone follow-up.

To further improve respondent identification and increase response rates, because many of these groups (e.g., law enforcement) have been over surveyed, the following additional procedures were implemented: a mailing three months prior to the commencement of the survey fielding period in an effort to have survey respondents designated in advance by the heads of their agencies, and informed of the nature and purpose of the survey; a broadcast fax follow-up to respondents who did not respond initially; extended telephone follow-up; and a third survey mailing sent via Federal Express to the two most challenging respondent populations, hospitals and state EMS.

Survey research has shown that incentive gifts mailed along with a survey instrument can increase response rates by elevating the perceived importance of the study and conveying both appreciation and recognition of the respondent's time.[115] In recognition of the gravity and importance of the survey subject matter, an incentive was commissioned that could also be easily mailed in the same envelope with the survey: a three-inch diameter, copper-colored, two-sided commemorative coin, which was imprinted with the title of the survey and an American flag on one side and the name of the panel and the Great Seal of the United States on the other side. These commemorative coins were included in each packet sent in the initial survey mailing.

Advance Notification

Data collection for this survey was primarily conducted between March and July 2001.[116] For most groups, letters were mailed out to respondents in January 2001 describing the survey that was to arrive in March or April and encouraging participation. In the letter, the agencies were asked to designate a survey respondent within their organization who would be the most knowledgeable about terrorism preparedness and provide that person's contact information on a postage-paid return postcard included in the mailing. This advance notice was used to heighten the awareness and importance of the survey among the contacted organizations, while increasing response rates by focusing future mail and telephone efforts on individuals specifically designated at the outset as the proper survey respondents by agency heads. For those organizations not returning postcards, follow-up calls were made to the original contact on

[115] Fowler, F. Jr. *Survey Research Methods (2nd ed.)*, Newbury Park, CA, Sage Publications, 1993.
[116] Additional follow-up efforts via FedEx were conducted between August and September 2001 with two of the most challenging and lowest response sub-groups, state EMS and hospitals.

record in an effort to have a specific, knowledgeable respondent assigned in advance of the actual survey mailing.

Survey Mailing

To better manage the fielding process, the nine types of organizations were divided into groups, or "waves." The data collection schedule for each was staggered by 10 days to allow the telephone survey staff adequate time to contact each respondent during the various phases of telephone follow-up. Each survey wave opened with an advance letter to the respondent indicating the importance of the survey and alerting them to its imminent arrival. Advance letters were printed on RAND stationary and signed by the RAND study director. For those agencies not contacted in January (hospitals, local EMS, local OEM, local public health), the advance letter gave the addressee the option of assigning a knowledgeable survey designee if they deemed it appropriate. Seven days following the advance letter mailing, the survey was sent out with a cover letter and commemorative coin. Cover letters were printed on panel stationary and were signed by Panel Chairman James S. Gilmore, III, Governor of Virginia. The survey itself was bound in a brightly colored cover designed to attract attention on a respondent's desk once out of its envelope.

Instructions To Respondents

In the survey cover letter, respondents were asked to complete the survey and return it to RAND in an enclosed postage-paid, business reply envelope. They were told that the survey would take about one-half hour to complete. On the cover of the survey, the following additional instruction was printed: "As the designated representative of your organization, please fill out all questions, to the best of your ability, from the perspective of your organization as a whole." Respondents were also given specific definitions for "weapons of mass destruction," "terrorism," and "cyber terrorism" in the body of the survey, and were asked to keep these definitions and their scope in mind when answering each question.

Phone Contact

Concurrent with the arrival of the survey packet, the first round of telephone follow-up began. This wave of calling was conducted by RAND Survey Research Group (SRG) telephone interviewers working from a centralized telephone interviewing facility in RAND's Santa Monica, California office.

In all rounds of telephone follow-up, interviewers spoke either to the person to whom the packet was mailed or, in cases where that was impossible, to that person's assistant or secretary. The purpose of the first round of calling was to verify that the packet had been received, to reiterate the importance of the respondent's participation in the study, and to answer any questions or concerns that the respondent might have. Eliminating questions and encouraging participation makes survey response more likely, as the respondent feels more accountable to the study after the call than if verbal contact is not conducted. First-round calling continued for 10 days for each sample wave, with state public health and hospital first-round calling extended to 14 days.

Follow-Up

Seven days following the survey mailing, reminder postcards were sent out to all survey recipients. The postcard thanked respondents if they had already filled out and returned the

survey, but also prodded those to complete the survey if who had not already done so, again citing the importance of the study and their participation in it.

Approximately four weeks following the initial mailing of the survey packet, a replacement survey was mailed to all candidates for whom a returned survey was not on file. As an added measure for samples with fax numbers on file (police, fire, and EMS), a broadcast fax was sent concurrent with the second survey mailing, encouraging them to watch for the replacement survey and to complete and return it.

One week following this second survey mailing, second-round telephone follow-up began, with interviewers stepping up attempts to convert potential survey refusals. For the samples with higher response rates at this stage, the second round calling lasted from 4 to 12 days; for those with the lowest response rates, follow-up calls continued for longer periods to allow the interviewers to thoroughly work through the samples. In particular, this period of telephone follow-up was most intensive and lengthy for the EMS and hospital samples, as their response rates were substantially lower than for the other groups (as expected because of the sampling difficulties experienced in determining the proper respondent for these populations). Hospital and EMS respondents also proved to be the most difficult to reach by telephone, stemming from the nature of their occupations.

While the final response rate for the majority of the groups was higher than 70 percent, response rates for EMS and hospital respondents remained low at the end of the second calling period, even after the extended effort undertaken to follow-up with these two groups. In a final effort to improve their response rates, one additional survey mailing was sent—this time, via Federal Express.

TAB 4 TO APPENDIX G (Survey Information)—SAMPLE DESIGN & RESPONDENT SELECTION

SAMPLE DESIGN & RESPONDENT SELECTION

The Federal Weapons of Mass Destruction Preparedness Programs Survey (FWMDPPS) was designed to allow inference to the nationwide community of state and local emergency response and health organizations. The sample consisted of three tiers of respondents—county, regional, and state—as shown in Table G.4.1 below, with sampling strategies tailored to each. Surveys were sent directly to the individual in each organization most familiar with the organization's participation in Federal program and WMD preparedness activities, or, if no such individual could be identified, to the individual responsible for emergency response planning. The names and contact information for these individuals were requested from the head of each organization—for example, the chief of a fire or police department, or the ER or medical director of a hospital. In many cases, the organizational heads elected to complete the survey themselves. In all, surveys were sent to 1,687 organizations, including 150 at the state level and 1,526 at the local and regional levels.[117]

Local (city/county)	***Regional***
• Law enforcement	• EMS
• Fire departments (paid, volunteer, combination)	
• Hospitals	***State***
• Emergency Medical Services (EMS)	• EMS
• Offices of Emergency Management (OEM)	• OEM
• Public health departments	• Public health departments

Table G-4-1. Organizations Included in the Survey

Sampling County-level Organizations

The survey followed a multi level cluster design for local and regional response organizations, first sampling counties and then sampling local and regional organizations that serve the sampled counties. Two factors motivated the decision to sample by county. First, lack of comprehensive nationwide registries for some of the organizations listed in Table G-4-1, "Organizations Included in the Survey," makes it cost-effective to first choose counties and then identify all response organizations within the subset of counties selected. Second, from a substantive perspective, counties provide the most consistent unit of geographic organization for emergency response services throughout the United States, particularly when both urban and rural areas are the object of study. Service areas and jurisdictions for response organizations tend to follow political boundaries, with counties playing a central role between local or city areas and the state. Of course, counties are not *always* the most relevant units of emergency response. Service catchment areas for hospitals and EMS organizations, for example, do not always respect county boundaries, as is true for the formal emergency response regions established by many states.

[117] Washington, D.C. was also sent all three state-level surveys, and state-level OEM and public health surveys were sent to the U.S. territories of Puerto Rico, Guam, Virgin Islands, and Northern Marianas Islands.

Nonetheless, clustering by county provided the most cost-effective and consistent geographic unit for obtaining a nationwide sample of local organizations.

Ensuring the Inclusion of "Sensitized" Counties

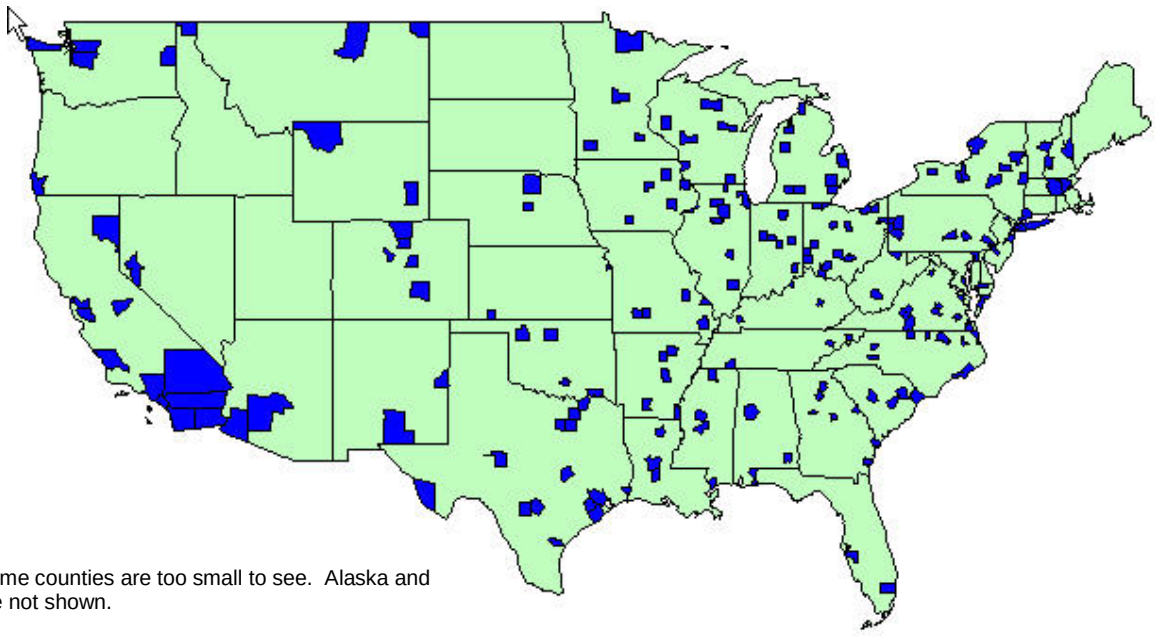
In addition to the randomly sampled of counties, 10 counties were hand picked for inclusion based on past WMD terrorist incidents or upcoming events that might have heightened their sensitivity to WMD terrorism (e.g., the Olympics).[118] The most prominent of each type of response organization in each of these counties was then selected to receive a survey. This allowed comparisons between "average" U.S. counties and those most likely to have invested in preparedness efforts or sought federal support to do so.

Selecting the County-Level Sample

The county sample followed a two-stage design that used counties as the primary sampling unit and then type of response organization as the secondary sampling unit. In the first stage, 200 counties out of the 3,105 counties in the contiguous United States, Alaska, and Hawaii were selected with a probability proportional to the size of their 1998 population, as estimated in the DHHS 2000 Area Resource File. The choice to give more populous counties a greater chance of selection was based on the following factors: urban areas have been the foremost recipients of federal preparedness support; they are perceived to be more likely targets for terrorism; and, as Table G-4-2 illustrates, without such a selection scheme it is that rural counties would have likely constituted nearly half of the sample simply because about half of U.S. counties are rural.

However, rural organizations are not excluded altogether. Though the probability of selection is based on county population, the sampling scheme ensures that a sufficient number of rural counties are also included in the sample, so that rural views on federal assistance enter into the analysis. Weighting proportional to population provides the balance required to ensure an adequate selection of urban counties without sacrificing the ability to give rural counties a voice in the Panel's deliberations. Figure G-4-1 (below) displays the geographic distribution across the continental United States of the counties selected into the sample.

[118] The selection of sensitized counties was made prior to the attacks on New York City and Washington D.C., on September 11th of this year. They are Cook County, Illinois; Dade County, Florida; Fulton County, Georgia; King County, Washington; Los Angeles County, California; Multnomah County, Oregon; New York County, New York; Oklahoma County, Oklahoma; Salt Lake County, Utah; and San Francisco County, California.



*Note: Some counties are too small to see. Alaska and Hawaii are not shown.

Figure G-4-1. Location of the 200 Randomly Sampled Counties*

Selecting Organizations Within Counties

Within each county, one organization from each of the respondent groups listed in Table G-4-1 (local law enforcement; paid, volunteer, and combination fire departments; hospitals; EMS organizations; OEMs; public health departments; and regional EMS organizations) was randomly selected to receive a survey. When no organizations within a county from a particular respondent group could be identified, it was determined which surrounding organizations served the county, and the sampling was done from these.

	All U.S. Counties (N=3,105)		Sampled Counties (N=200)	
	N	%	N	%
Northeast	217	7	31	16
Midwest	1,055	34	60	30
West	442	14	33	17
South	1,391	45	76	38
Rural	1,410	45	43	22

COMPARISON BY POPULATION

	All U.S. Counties		Sampled Counties	
	Mean	Median	Mean	Median
Population	87,053	24,080	398,037	65,745

Table G-4-2. Comparison of Sampled Counties and All Counties in the United States

Sampling Regional Organizations

Often, emergency response or health organizations are located apart from the counties they serve. For example, a public health department may reside in one county but have a number of neighboring counties under its jurisdiction, especially in sparsely populated or rural areas. The term "regional" as used here refers to such organizations, whose jurisdiction or service area falls between the county and state level. In each county, the sample was drawn first from local organizations residing within the county; if no local organizations were found to serve the county, regional organizations serving the county, but residing elsewhere, were searched for and sampled. This "first local, then regional" rule guaranteed that the most local relevant provider of services to a county was properly identified and surveyed, even when that provider resides outside the county.

Regional EMS organizations, in particular, are unique in that they often serve a county population already served by a local EMS provider. That is, a number of counties are served by both local EMS organizations based within the county and regional EMS organizations based outside the county. To ensure that the perspectives of both local and regional EMS organizations on federal programs and WMD awareness were captured in the survey, both local and regional EMS organizations were sampled for each county.

Census of State-level Organizations

In addition to local and regional responders, state-level EMS, OEM, and public health departments in each of the 50 states, Washington, D.C., and the U.S. territories of Puerto Rico, the Virgin Islands, Marianas Islands, and Guam were also surveyed. "State-level" signifies the single focal point, coordinating, or administrative body in each state for a particular response community (e.g., public health) that has the state as its jurisdictional mandate. These state-level entities are important for their statewide response and policymaking activity but also as intermediaries between Federal agencies and local response organizations.

Sample Size Calculations

Sample size calculations were used to determine the number of required respondents to achieve a desired accuracy in the final survey results. The calculations for the survey were based on a desired eight percent margin of error for each type of county-level responder organization and an assumed 70 to 80 percent survey response rate. Based on a dichotomous (i.e., yes/no) question, an initial sample of 200 of each type of responder organization will yield approximately 140 responses, which will result in the desired margin of error under the additional conservative assumption that 50 percent of the population would answer yes to the question.
Planning the sample size for such a relatively large margin of error reflected the intended use of the survey as a means of checking and evaluating the general conclusions of the Advisory Panel and as a way of ensuring that a wide cross section of the local response community had input into the Advisory Panel's deliberative process.

For the census of State-level organizations, calculation of the margin of error, under the assumption that not all organizations replied to the survey, is still relevant. With a dichotomous question and an assumed 70 to 80 percent response rate, and correcting for the finite size of the population (there are only 50 states), the resulting margin of error is very similar to that of the county-level organizations'—between 7 and 10 percent.

TAB 5 TO APPENDIX G (Survey Information)—RESPONSE RATES

RESPONSE RATES

This appendix presents the number of surveys sent, the number of surveys returned, and the resulting response rate for all respondent groups, including local, regional and State respondents, and separately for respondents in "sensitized" counties[119] (counties that likely have heightened sensitivity to terrorism based on past WMD terrorist incidents or upcoming events). Overall, the final sample of FWMDPPS respondents is representative of local and State responders both geographically (with surveys returned by every State and the District of Columbia) and across the different emergency response and health disciplines. The strong response from most groups, with the exception of hospitals and EMS organizations, met or exceeded the original goal of achieving a 70 percent response rate for each group, corresponding to a desired margin of error of plus and minus 8 percent (based on a conservative estimate of half of the respondent population answering yes to a given question).[120]

Table G-5-1 shows the response rate for each group: first for local and regional respondents in all sample counties (excluding sensitized counties), then for local and regional respondents in sensitized counties, and finally, for all State-level respondents. State agencies, as a group, had a higher response rate than local and regional organizations, at 76 percent; State public health agencies responded at the highest rate (apart from the sensitized organizations) at 82 percent. The FWMDPPS also achieved higher rates of response from respondents in counties designated as "sensitized." However, one should be cautious when drawing conclusions about differences between the non sensitized and sensitized figures in Table G-5-1 and elsewhere, as counties designated as "sensitized" all contain major urban centers. Thus, these differences may simply reflect urban-rural differences, rather than a heightened focus on terrorism within the county.

The sample is also geographically diverse. Table G-5-2 shows response rates for respondents in the northeastern, southern, midwestern, and western United States, respectively.[121] For example, 52 percent of fire departments in the northeast in the sample responded (37 surveys were received from this group). The FWMDPPS achieved a response rate of 55 percent or greater in all regions among local and regional organizations, and 71 percent or greater among state-level agencies.

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[119] The selection of sensitized counties was made prior to the attacks on New York City and the Capital on September 11th of this year. They are Cook County, Illinois; Dade County, Florida; Fulton County, Georgia; King County, Washington; Los Angeles County, California; Multnomah County, Oregon; New York County, New York; Oklahoma County, Oklahoma; Salt Lake County, Utah; and San Francisco County, California.

[120] The motivation for this desired margin of error is discussed in Appendix G-4.

[121] The regions are Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont); South (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia); Midwest (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin); and West (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming).

Type of Organization	Surveys Sent	Surveys Returned	Response Rate (%)
Local/Regional			
("Non Sensitized" Counties)			
Fire	423	283	67
Law Enforcement	194	135	70
EMS	113	54	48
EMS, regional	103	49	48
Hospital	194	95	49
Public Health	187	138	74
OEM	192	137	71
Local/Regional "Non Sensitized" Total	1406	891	63
Local/Regional			
("Sensitized" Counties)			
Fire	20	17	85
Law Enforcement	14	12	86
EMS	6	5	83
EMS, regional	8	3	38
Hospital	14	10	71
Public Health	12	9	75
OEM	10	5	50
Local/Regional "Sensitized" Total	84	61	73
State			
EMS	51	35	69
OEM	51	40	78
Public Health	51	42	82
State Total	153	117	76
All Respondents	1643	1069	65

Table G-5-1. Response Rates by Type of Organization

Although respondents in the west and midwest responded at the highest rates, the largest *number* of surveys was sent to and received from respondents in the south, simply because sampling was conducted by county and relatively more U.S. counties are in southern states (primarily in Texas). Despite these regional differences in response, none of the four regions comprises less than 15 percent of the final sample. As previously mentioned, surveys were received from every state and the District of Columbia, and state-wide response rates were never less than 33 percent.

Type of Organization	Region							
	Northeast		South		Midwest		West	
	N[†]	RR	N	RR	N	RR	N	RR
Local/Regional								
Fire	37	52	107	66	90	68	66	84
Law Enforcement	15	48	57	72	42	69	33	89
EMS	10	45	14	45	20	49	15	60
EMS, regional	16	62	20	50	8	32	8	40
Hospital	13	42	38	48	32	52	22	59
Public Health	17	61	53	68	48	81	29	85
OEM	23	79	49	63	46	77	24	69
Local/Regional Total:	131	55	338	62	286	65	197	74
State								
EMS	6	67	11	65	9	75	9	69
OEM	8	89	13	76	11	92	8	62
Public Health	8	89	12	71	11	92	11	85
State Total:	22	81	36	71	31	86	28	72
All Respondents:	153	58	374	63	317	67	225	74

Table G-5-2. Response Rates by Region

[†] The first column, N, shows the number of surveys received in the region. The second column, RR, shows the response rate in the region. For example, 37 (52%) of fire departments in the northeast responded to the survey. The number of surveys sent, not shown in the table, is N/RR.

Table G-5-2 also shows that the trends from Table G-5-1 are generally consistent across regions: public health departments had strong rates of response in all regions at both the local and State level (from 61 to 92 percent), while local and regional EMS organizations, and hospitals were much less likely to respond (from 32 to 62 percent) in all regions but the northeast. Rates for the remaining local groups were generally closer to the 70 percent range, with low points occurring in the northeast, and State agencies as a group responding more strongly than locals in all regions (best in the northeast and midwest).

TAB 6 TO APPENDIX G (Survey Information)—CONSTRUCTING THE SURVEY WEIGHTS

CONSTRUCTING THE SURVEY WEIGHTS

Survey weights account for differential probability of being sampled among strata and for nonresponse. These statistical adjustments allow the analysis to properly infer back to the correct local response population.

The overall survey weight applied to any respondent can be expressed as $W_{igj} = \frac{1}{P_{igj}}$, where P_{igj} is the probability that respondent *i* in group *g* (e.g., hospitals) in county *j* was selected and completed the survey. Because organizations were selected from within counties, this overall probability is really threefold: it depends on (1) the probability county *j* was selected in the first stage; (2) the probability organization *i* was selected from among the eligibles in group *g* in the second stage, given county *j* was selected in the first stage; and (3) the probability organization *i* completed and returned the survey, given organization *i* was selected. If one calls these probabilities π_j, π_{igj}, and π^R_{igj}, respectively, then the overall probability of response, which is all that is needed to calculate a particular respondent's survey weight, is just their product:

$$P_{igj} = \pi_j * \pi_{igj} * \pi^R_{igj} \qquad (1)$$

The first terms above, π_j, π_{igj}, are referred to as the "probabilities of selection" and their derivation depends only on the sampling methodology employed for each group of respondents. The final term, π^R_{igj}, has a different meaning: it is an adjustment to account for the fact that some organizations who were asked to complete the survey were more likely than others to actually complete and return it. The last term in equation (1), π^R_{igj}, is referred to as the "probability of response"; it accounts for observed patterns of response that can only be determined after all surveys have been returned and processed. For example, hospitals in rural counties were less likely to complete and return the survey than their urban counterparts. In this case, the adjustment is necessary to ensure that rural hospitals' views are not underemphasized—simply because of differences in response rates—when results from both urban and rural hospitals are aggregated.

The next sections derive the right-hand side probabilities in equation (1) separately for each respondent group. The separate derivations are necessary because differences in organizational structure between groups and in the data available to construct sampling frames necessitated different sampling rules. The impact of these differences on each term in equation (1) is summarized in Table G.6.1., below.

Weights were not constructed for EMS respondents, since the sample of EMS organizations is a convenience sample. Hence, care must be taken when generalizing the local and regional EMS samples to any larger EMS population. Weights also have not been constructed for State-level respondents, since the State surveys are censuses, rather than randomly selected samples, and because State respondents exhibited no observable patterns of nonresponse.

Probability of Selection for Counties

The sample of $n = 200$ counties was drawn without replacement from the $N = 3{,}105$ counties in the contiguous United States, Alaska, and Hawaii, with probabilities of selection proportional to the square root of each county's population.[122] Label county *j's* population ρ_j, then the probability of selection for the j[th] county was

$$\pi_j = \frac{n\sqrt{\rho_j}}{\sum_{k=1}^{N}\sqrt{\rho_k}} \qquad (2)$$

Probability of Selection for Organizations

Apart from the exceptions described in the next section and in Tab 5 to Appendix G, only one representative from each group was selected per county. Therefore, the probability of selection for any organization *i* in group *g* and county *j*, given county *j* was selected in the first stage, was just

$$\pi_{igj} = \frac{1}{N_{gj}} \qquad (3)$$

where N_{gj} is the number of organizations from group *g* eligible for sampling within county *j*.

Note that later sections will describe adjustments to the π_j required for public health, OEM, and hospital respondents. Also, fire departments were selected using a more complicated method to ensure sufficient HAZMAT organizations were selected—see below.

Sampling Fire Departments

One of two schemes were followed in each county for selecting fire departments into the sample, depending on the distribution of departments with HAZMAT capability across the departments' organizational strata: all volunteer, all paid, and combination. From here on, department stratum refers to this classification. Which scheme was used will affect how the weights are computed in the county.

Let N_c be the total number of fire departments in county *c*. For each department $i \in 1..N_c$ in county *c*, define:

v_{ic} = 1 if department is volunteer, else 0
p_{ic} = 1 if department is paid, else 0
c_{ic} = 1 if department is combination, else 0
h_{ic} = 1 if department has HAZMAT capability, else 0.

Then the number of HAZMAT departments in each stratum, volunteer, paid, and combination, respectively, in county *c* is:

[122] Population estimates were taken from the February, 2000 release of the DHHS's Area Resource File. Sampling was carried out using SAS's SURVEYSELECT procedure.

$$HV_c = \sum_{i=1}^{N_c} v_{ic} h_{ic}$$

$$HP_c = \sum_{i=1}^{N_c} p_{ic} h_{ic}$$

$$HC_c = \sum_{i=1}^{N_c} c_{ic} h_{ic}$$

Now, the number of *strata* of departments in county *c* with HAZMAT capability is:

$HT_c = \min(1, HV_c) + \min(1, HP_c) + \min(1, HC_c)$

The sampling scheme, $S_c \in \{1, 2\}$, was chosen for county *c* according to:

$$S_c = \begin{cases} 1 & if \quad HT_c < 2 \\ 2 & if \quad HT_c \geqslant 2 \end{cases}$$

A few more definitions before writing down the expressions for weighting under each scheme in each county *c*:

$V_c = \sum_{i=1}^{N_c} v_{ic}$	# of volunteer departments
$P_c = \sum_{i=1}^{N_c} p_{ic}$	# of paid departments
$C_c = \sum_{i=1}^{N_c} c_{ic}$	# of combination departments
$H_c = HV_c + HP_c + HC_c$	# of HAZMAT departments

Sampling Scheme One

This scheme was used if out of the three department strata in a county, at most one had any fire departments with HAZMAT capability. In this case, volunteer, paid, and combination departments were considered separately and randomly selected one respondent from each group, so that the probability of selection, π_{ifc},[123] for a department just depends on its stratum.

So, for a county with $S_c = 1$,

$$\pi_{ifc} = \begin{cases} \frac{1}{V_c} & if \quad v_{ic} = 1 \\ \frac{1}{P_c} & if \quad p_{ic} = 1 \\ \frac{1}{C_c} & if \quad c_{ic} = 1 \end{cases}$$

or just

$$\pi_{ifc} = \frac{1}{p_{ic}P_c + v_{ic}V_c + C_c c_{ic}}$$

[123] π_{ifc}, for a fire department *i* in a county *c*.

Sampling Scheme Two

Here there were two stages. First, one department was selected randomly from all HAZMAT departments, irrespective of its stratum. It was then noted the stratum of the department selected and ruled this stratum out from further sampling in the county. This left one or two strata of departments, depending on the county. In the second stage, one department was randomly selected from each of the remaining strata.

For HAZMAT departments, then, π_{ifc} is determined by the chance of getting selected in the first round, $\frac{1}{H_c}$, plus the likelihood of getting selected in a subsequent round given *i*'s stratum was not the same as the department chosen in the first round. For example, for a volunteer department *i*, the chance *i*'s stratum was not chosen in the first round is $1 - \frac{HV_c}{H_c}$. That is one minus the chance a HAZMAT of *i*'s stratum, volunteer, *was* selected from among all HAZMATs.

So, if $S_c = 2$ and $h_{ic} = 1$:

$$\pi_{ifc} = \begin{cases} \frac{1}{H_c} + \left(1 - \frac{HV_c}{H_c}\right)\frac{1}{V_c} & \text{if } v_{ic} = 1 \\ \frac{1}{H_c} + \left(1 - \frac{HP_c}{H_c}\right)\frac{1}{P_c} & \text{if } p_{ic} = 1 \\ \frac{1}{H_c} + \left(1 - \frac{HC_c}{H_c}\right)\frac{1}{C_c} & \text{if } c_{ic} = 1 \end{cases}$$

The last case is if $h_{ic} = 0$, a non-HAZMAT department in a county using the second sampling scheme. Here, there is no chance of selection in the first round, but the chance of selection in a subsequent round is the same.

So, if $S_c = 2$ and $h_{ic} = 0$:

$$\pi_{ifc} = \begin{cases} \left(1 - \frac{HV_c}{H_c}\right)\frac{1}{V_c} & \text{if } v_{ic} = 1 \\ \left(1 - \frac{HP_c}{H_c}\right)\frac{1}{P_c} & \text{if } p_{ic} = 1 \\ \left(1 - \frac{HC_c}{H_c}\right)\frac{1}{C_c} & \text{if } c_{ic} = 1 \end{cases}$$

Adjustment for OEMs and Public Health Respondents

A number of public health departments and OEMs have jurisdiction over neighboring counties that have no such organizations within their borders. For these "regional" organizations, the county probability of selection given in equation (2) must be augmented to account for the fact that if *any* county under their jurisdiction had been selected in the first stage sample of counties, the regional organization in question would have been selected into the sample in the second stage. Let π_R' be the adjusted probability of selection for a public health department or OEM in county *R* (for "regional") that has $N_R > 1$ counties under its jurisdiction. Then,

$$\pi_R' = \pi_R + \sum_{c=1}^{N_R} \pi_c \qquad (4)$$

where the right-hand side π's are just the π_j's from equation (2).

Adjustment for Hospitals

Hospitals with trauma centers were over sampled to ensure selection of an adequate number of hospitals involved in emergency response. In each county, a sampling procedure was constructed to ensure a 70 per cent or greater chance of selecting a hospital with a trauma center.[124] Essentially, the list of trauma center hospitals was replicated an integer Z number of times until trauma center hospitals comprised at least 70 percent of all hospitals. Let T_j and NT_j be the number of hospitals with and without trauma centers, respectively, in county j. Then Z is $ceil(0.7NT_j/0.3T_j)$, where the *ceil* operator rounds its argument to the next highest integer. This procedure results in a probability of selection for each trauma center hospital t in county j of

$$\pi_{t,hj} = \frac{Z_j}{Z_j * T_j + NT_j} \tag{5}$$

and for each hospital nt, that does not have a trauma center, of

$$\pi_{nt,hj} = \frac{1}{Z_j * T_j + NT_j} \tag{6}$$

where h in the subscripts indicates the hospital respondent group. The equations above replace equation (3) for hospitals in the calculation of survey weights.

One final adjustment to the hospital weights is necessary to account for the "nearest neighbor" selection rule employed when no hospital could be identified within a county. The adjustment, described below, results in an expression similar to the regional adjustment for public health departments and OEMs in equation (4) in the sense that it does not affect the adjustments given in (5) and (6) above, but instead replaces the hospitals' county probabilities of selection given in equation (2).

When no hospital could be identified within a county c, a hospital from the county nearest to c was selected at random. Consequently, hospitals in the sample could have been selected either because they were located within a sample county, or because they were in a county, call it R, that *did* have a hospital within its borders and happened to be the county closest to c. Thus, an adjustment to each hospital's probability of selection is required. In this case, it is more straightforward to make the adjustment to each hospital's county probability of selection, π_j, than to the organizational probability of selection, π_{ihj}. Let N_R be the number of counties surrounding c that contain no hospital and for which R is the nearest county that does contain a hospital. If R and N_R are interpreted in this manner, equation (4) gives the correctly adjusted π_j for hospitals.

[124] In counties where no trauma center hospital was present, the usual selection mechanism was employed: one hospital was selected at random from all of the eligible hospitals (eligibility was discussed in Section 3).

Summary

Table G-6-1 below summarizes the above discussion. For each respondent group, it lists the number of the equation used to form the county probability of selection and the organizational probability of selection, respectively. These give the correct inputs to equation (1), adjusted as necessary for the different sampling rules required for each group. The derivation of survey weights for fire departments is more involved and is described in further detail later in this appendix.

Respondent group *g*	π_j	π_{igj}	**Reason for weighting adjustment**
Law enforcement	(2)	(3)	No adjustment necessary
Fire	(2)	See narrative	Stratification by HAZMAT; paid, volunteer, combination departments
EMS	(2)	$\pi_{igj}=1$	Convenience sample
Public health	(4)	(3)	Regional, multi-county jurisdictions
OEM	(4)	(3)	Regional, multi-county jurisdictions
Hospitals	(4)	(5)/(6)	Over-sampling of trauma centers; nearest neighbor rule

Table G-6-1. Equation References for Adjusted Probabilities of Selection due to Special Weighting Considerations

Probability of Nonresponse

Nonresponse was accounted for using the propensity score method of Little and Rubin[125] to determine the probability, π^R_{igj} from equation (1), that organization *i* in group *g* in county *j* responded given that organization *i* was sampled. This probability was calculated by fitting a separate logistic regression model for each respondent group of the form

$$\pi^R_{igj} = \frac{\exp(\beta_g + \mathbf{X}_i + \mathbf{Y}_j)}{1 + \exp(\beta_g + \mathbf{X}_i + \mathbf{Y}_j)} \qquad (7)$$

where β_g is the intercept coefficient for the respondent group (e.g., hospitals), and $\boldsymbol{X}_g$, and $\boldsymbol{Y}_j$ are vectors of organization-specific and county-specific characteristics, respectively.

At both the county and organization level, covariates were candidates for inclusion in the model if (1) they were strongly predictive of observed patterns of nonresponse or, (2) if they were weakly predictive (p-values up to 25% were acceptable), but had a reasonable theoretical justification for influencing a respondent's interest in WMD or willingness to respond (e.g., urban degree of the respondent's county).

[125] Little, R.J.A. and Rubin, D.B. (1987) *Statistical Analysis with Missing Data*. John Wiley and Sons. New York, New York.

TAB 7 TO APPENDIX G (Survey Information)—SECTION 5 TABULATIONS

SURVEY SECTION 5, "ASSESSMENT OF FEDERAL PROGRAMS," TABULATIONS

These tables have been statistically adjusted to account for oversampling and nonresponse. As such, they provide the best estimate of how a question would have been answered if every organization in the population had been surveyed. Some notes to keep in mind when reading the tables:

- *These tables are designed to be read with the survey instrument available for reference.* That is, the reader must refer to the actual survey for information about response scales, the exact question and response set wording, etc. Please see Tab 2 to Appendix G for a copy of the Fire Department Survey.
- Questions may have varied slightly between responder groups. To minimize space, questions that were similar in intent, but may have differed in particular wording, were combined in a single table. Again, please refer to the survey instrument for actual question wording.
- Similarly, some tables contain abbreviations for the various survey responses. Referral to the possible responses to each question in the survey will make the meaning of the abbreviations clear.
- Answering some questions was appropriate only if the respondent appropriately answered a previous question. This is indicated in the wording of each table's title, e.g., "Of those who..." etc.
- A dot (i.e., ".") in a table cell indicates that response was not offered for that particular group.
- Larger tables may be continued on another page. This is indicated by "(continued)" in the bottom left corner of the table.
- The cells of the tables contain the percentage of organizations that chose each response *by type of organization*. Abbreviations for the type of organization are listed in Table G-7-1.

Type of Organization	Abbreviation	Number of Surveys Returned
Fire Department	Fire	300
Law Enforcement	Law	147
Office of Emergency Management (OEM)	OEM	142
Public Health	PubHlth	147
Hospital	Hosp	105
Emergency Medical Services (EMS)	EMS	68
State EMS	St EMS	35
State OEM	St OEM	40
State Public Health	St PH	42

Table G-7-1. Number of Responding Organizations

SINCE 1996 HAS YOUR ORGANIZATION APPLIED FOR FUNDING, TRAINING, EQUIPMENT, OR OTHER WMD PREPAREDNESS SUPPORT AVAILABLE FROM THE FEDERAL GOVERNMENT, REGARDLESS OF WHETHER OR NOT YOU RECEIVED IT?

GROUP	% YES	% NO
Fire	15.5	84.5
Hosp	13.7	86.3
Law	5.6	94.4
OEM	39.7	60.3
PubHlth	13.3	86.7
EMS	11.9	88.1
St EMS	54.3	45.7
St OEM	97.5	2.5
St PH	100.0	0.0

AVG SCORE FOR THOSE RESPONDENTS WHO APPLIED FOR FEDERAL GOVT SUPPORT (SEE PREVIOUS QUESTION): HOW SATISFIED WAS YOUR ORGANIZATION WITH THE SPEED AND EFFECIENCY OF THE APPLICATION PROCESS FOR FEDERAL WMD PREPAREDNESS PROGRAMS?

GROUP	AVG SCORE
Fire	2.0
Law	2.7
OEM	3.1
PubHlth	3.5
EMS	3.3
St EMS	3.2
St OEM	2.9
St PH	3.5

NOTE: HOSPITALS NOT ASKED THIS QUESTION

SINCE 1996, HAS YOUR ORGANIZATION RECEIVED ANY SUPPORT FOR FUNDING, TRAINING, EQUIPMENT, OR OTHER WMD PREPAREDNESS FROM THE FEDERAL GOVERNMENT?

GROUP	% YES	% NO
Fire	17.9	82.1
Hosp	12.4	87.6
Law	7.2	92.8
PubHlth	26.5	73.5
EMS	11.8	88.2
St PH	100.0	0.0

NOTE: LOCAL/STATE OEM AND STATE EMS NOT ASKED THIS FORM OF THE QUESTION

SINCE 1996, HAS YOUR ORGANIZATION RECEIVED ANY SUPPORT FOR WMD PREPAREDNESS FROM THE FEDERAL GOVERNMENT INTENDED FOR:

	TYPE OF ORGANIZATION		
	OEM	St EMS	St OEM
	%	%	%
YOUR ORGANIZATION'S PERSONNEL OR STAFF?	47%	57%	98%
OTHER ORGANIZATIONS IN YOUR JURISDICTION?	30%	49%	93%
NONE OF THE ABOVE	45%	37%	0%

NOTE: ONLY LOCAL/STATE OEM AND STATE EMS ASKED THIS FORM OF THE QUESTION

FOR THOSE THAT RECEIVED FEDERAL SUPPORT (SEE PREVIOUS QUESTION):
PLEASE INDICATE THE TYPES OF FEDERAL SUPPORT YOUR ORGANIZATION HAS RECEIVED

	TYPE OF ORGANIZATION								
	Fire	Hosp	Law	OEM	PubHlth	EMS	St EMS	St OEM	St PH
	%	%	%	%	%	%	%	%	%
FUNDING	3%	3%	19%	48%	27%	13%	77%	98%	100%
EQUIPMENT	7%	9%	22%	18%	38%	25%	36%	33%	78%
ORGANIZATION-WIDE TRAINING/EXERCISES	27%	60%	48%	42%	30%	38%	45%	60%	34%
INDIV STUDY MATERIALS/VIDEOS	25%	58%	32%	50%	26%	50%	50%	78%	46%
HANDBOOKS OR REFERENCE MATERIALS	50%	64%	50%	49%	27%	50%	68%	80%	66%
SUPPORT TO ATTEND/ORGANIZE CONFERENCES/LECTURES	.	68%	.	57%	38%	.	77%	65%	85%
ANNOUNCEMENTS/BULLETINS CITING ADVANCES...	.	.	.	.	35%	.	.	.	51%
OTHER	41%	36%	31%	7%	9%	38%	9%	8%	7%

NOTE: DIFFERENT RESPONSE SET FOR EACH GROUP

FOR THOSE THAT RECEIVED FEDERAL SUPPORT:
HOW WERE THE FEDERAL WMD RESOURCES YOU RECEIVED USED?

GROUP	% SHARED	% ONLY_ OUR_ORG
Fire	58.8	41.2
Law	50.8	49.2
OEM	79.7	20.3
PubHlth	56.3	43.7
EMS	66.7	33.3
St EMS	65.0	35.0
St OEM	100.0	0.0
St PH	75.0	25.0

NOTE: HOSPITALS NOT ASKED THIS QUESTION

FOR THOSE THAT RECEIVED FEDERAL SUPPORT:
HAS YOUR ORGANIZATION'S PARTICIPATION IN FEDERAL WMD PROGRAMS HINDERED YOUR ABILITY TO OBTAIN ADDITIONAL STATE SUPPORT FOR WMD OR ANY OTHER TYPE OF EMERGENCY PREPAREDNESS?

GROUP	% YES	% NO	% DK
Fire	0.3	30.4	69.2
Law	2.2	40.6	57.2
OEM	1.7	49.7	48.6
PubHlth	2.7	60.4	36.9
EMS	8.3	41.7	50.0
St EMS	0.0	72.7	27.3
St OEM	0.0	70.0	30.0
St PH	7.1	59.5	33.3

NOTE: HOSPITALS NOT ASKED THIS QUESTION

SINCE 1996, HAS YOUR ORGANIZATION APPLIED TO ANY OF THE NON-FEDERAL SOURCES BELOW FOR FUNDING, TRAINING, EQUIPMENT, OR OTHER SUPPORT TO IMPROVE YOUR ORGANIZATION'S (JURISDICTION'S) PREPAREDNESS FOR WMD INCIDENTS?

	TYPE OF ORGANIZATION								
	Fire	Hosp	Law	OEM	PubHl-th	EMS	St EMS	St OEM	St PH
	%	%	%	%	%	%	%	%	%
STATE GOVT AGENCIES	7%	10%	8%	30%	21%	16%	31%	20%	.
LOCAL GOVT AGENCIES	4%	5%	4%	6%	2%	7%	.	.	.
PRIVATE SECTOR ORGANIZATIONS	1%	0%	2%	1%	0%	3%	3%	5%	2%
FOUNDATIONS	.	1%	.	.	0%	.	.	.	0%
OTHER	.	2%	.	.	1%	.	.	.	5%
WE HAVE NOT APPLIED TO ANY OF THE ABOVE...	79%	76%	87%	66%	74%	75%	69%	75%	90%

NOTE: DIFFERENT RESPONSE SET FOR EACH GROUP

SINCE 1996, HAS YOUR OFFICE REQUESTED WMD PREPAREDNESS ASSISTANCE OR SUPPORT FROM ANY OF THE FOLLOWING FEDERAL PROGRAMS OR OFFICES?

	TYPE OF ORGANIZATION								
	Fire	Hosp	Law	OEM	PubHl-th	EMS	St EMS	St OEM	St PH
	%	%	%	%	%	%	%	%	%
FBI NATIONAL DOMESTIC PREPAREDNESS OFFICE	1%	1%	1%	9%	0%	1%	11%	45%	17%
DOJ OFFICE FOR STATE & LOCAL DOMESTIC PREPAREDNESS SUPPORT	4%	1%	1%	19%	4%	4%	23%	95%	40%
FEMA EMERGENCY MANAGEMENT INSTITUTE OR FIRE ACADEMY	15%	2%	3%	30%	3%	6%	14%	83%	19%
CDC BIOTERRORISM PREPAREDNESS & RESPONSE PROGRAM	0%	3%	0%	3%	7%	0%	37%	38%	98%
DOMESTIC PREPAREDNESS PROGRAM ('120 CITIES' PROGRAM)	1%	4%	1%	9%	1%	4%	26%	55%	19%
OTHER	1%	2%	3%	2%	2%	1%	3%	15%	10%
WE HAVE NOT REQUESTED WMD PREPAREDNESS SUPPORT...	72%	71%	92%	59%	83%	85%	46%	3%	2%

HAS YOUR ORGANIZATION RECEIVED ANY TRAINING OR EQUIPMENT FROM THE DOMESTIC PREPAREDNESS PROGRAM ('120 CITIES PROGRAM')?

GROUP	% YES	% NO
Fire	4.9	95.1
Hosp	12.2	87.8
Law	3.4	96.6
OEM	12.5	87.5
PubHlth	14.7	85.3
EMS	11.9	88.1
St EMS	36.4	63.6
St OEM	50.0	50.0
St PH	38.1	61.9

HAS YOUR JURISDICTION RECEIVED ANY TRAINING OR EQUIPMENT FROM THE DOMESTIC PREPAREDNESS PROGRAM ('120 CITIES PROGRAM')?

GROUP	% YES	% NO	% DK
OEM	9.7	73.6	16.7

STATE EMS: HAVE OTHER EMS ORGS IN YOUR STATE RECEIVED ANY TRAINING OR EQUIPMENT FROM THE DOMESTIC PREPAREDNESS PROGRAM ('120 CITIES PROGRAM')?

GROUP	% YES	% NO	% DK
St EMS	59.1	27.3	13.6

STATE OEM: HAS YOUR STATE RECEIVED ANY TRAINING OR EQUIPMENT FROM THE DOMESTIC PREPAREDNESS PROGRAM ('120 CITIES PROGRAM')?

GROUP	% YES	% NO	% DK
St OEM	77.5	20.0	2.5

AVERAGE SCORE FOR THOSE THAT RECEIVED TRAINING FROM THE DOMESTIC PREPAREDNESS PROGRAM: HOW MUCH DO YOU DISAGREE OR AGREE WITH THE FOLLOWING STATEMENTS ABOUT THE TRAINING YOUR ORGANIZATION/JURISDICTION/STATE RECEIVED FROM THE DOMESTIC PREPAREDNESS PROGRAM?

GROUP	Trn_Impr	Trn_Adeq	Trn_Relv	Trn_Hrs	Trn_Loc	Trn_Use	Trn_Appr	Trn_St	Trn_Know
Fire	3.6	1.8	3.9	4.2	3.0	4.3	.	.	.
Law	3.4	2.3	3.9	3.9	3.8	4.7	.	.	.
OEM	3.8	2.3	3.8	.	3.6	3.8	4.0	.	3.2
PubHlth	3.5	2.2	3.6	3.6	3.4	3.7	.	.	.
EMS	3.0	2.3	3.9	3.6	3.1	3.1	.	.	.
St EMS	3.6	2.3	3.9	.	.	3.9	3.2	3.3	3.6
St OEM	3.0	2.3	3.4	.	.	3.3	2.8	2.8	4.1
St PH	3.1	2.4	3.6	3.5	.	3.7	.	3.7	.

NOTES: HOSPITALS NOT ASKED THIS QUESTION; DIFFERENT RESPONSE SET FOR EACH GROUP

AVERAGE SCORE FOR THOSE THAT RECEIVED EQUIPMENT FROM THE DOMESTIC PREPAREDNESS PROGRAM: HOW MUCH DO YOU DISAGREE OR AGREE WITH THE FOLLOWING STATEMENTS ABOUT THE EQUIPMENT YOUR ORGANIZATION/JURISDICTION/STATE RECEIVED FROM THE DOMESTIC PREPAREDNESS PROGRAM?

GROUP	Eqp_Impr	Eqp_Relv	Eqp_Adeq	Eqp_Cost	Eqp_Use	Eqp_Appr	Eqp_Know
Fire	3.1	3.3	2.7	2.9	3.2	.	.
Law	5.0	4.0	2.0	4.0	4.0	.	.
OEM	4.0	4.0	3.0	.	4.0	4.0	3.2
PubHlth	4.3	4.3	4.0	4.3	4.3	.	.
EMS	2.0	2.0	1.0	1.0	1.0	.	.
St EMS	3.0	3.3	2.3	.	3.7	3.4	3.5
St OEM	3.1	3.3	2.2	.	3.4	2.6	4.1

NOTES: HOSPITALS NOT ASKED THIS QUESTION; DIFFERENT RESPONSE SET FOR EACH GROUP

AVERAGE SCORE FOR THOSE THAT RECEIVED TRAINING OR EQUIPMENT FROM THE DOMESTIC PREPAREDNESS PROGRAM:

HOW MUCH DO YOU DISAGREE OR AGREE WITH THE FOLLOWING STATEMENTS ABOUT THE TRAINING/EQUIPMENT YOUR ORGANIZATION/JURISDICTION/STATE RECEIVED FROM THE DOMESTIC PREPAREDNESS PROGRAM?

TE_Impr	TE_Adeq	TE_Relv	TE_Hrs	TE_Loc	TE_Use
3.5	2.6	4.0	3.8	3.5	4.0

NOTE: ONLY HOSPITALS ASKED THIS VERSION OF THE QUESTION

SINCE 1996, HAS YOUR ORGANIZATION PARTICIPATED IN ANY OTHER FEDERALLY-SPONSORED PROGRAMS FOR FUNDING, EQUIPMENT, TRAINING, OR OTHER WMD PREPAREDNESS SUPPORT?

	Fire	Hosp	Law	OEM	PubHlth	EMS	St EMS	St OEM	St PH
	%	%	%	%	%	%	%	%	%
OJP FIRST RESPONDER EQUIP ACQUISITION PROG	2%	.	1%	9%	.	0%	17%	43%	.
OJP MUNICIPAL FIRE & EMS EQUIP & TRNG PROG	0%	.	0%	0%	.	0%	6%	10%	.
NDPO EQUIP RESEARCH & DEVELOPMENT PROG	0%	.	0%	0%	.	1%	0%	8%	.
OJP ANTI-TERRORISM STATE & LOCAL TRNG GRANTS	1%	.	0%	3%	4%	3%	20%	33%	19%
OSLDPS TRAINING (DOJ-SPONSORED)	8%	.	1%	9%	.	0%	34%	70%	.
FEMA EMERGENCY MANAGEMENT ISTITUTE COURSE (WMD RELATED)	5%	8%	8%	19%	6%	4%	26%	68%	31%
NATIONAL FIRE ACADEMY EMERGENCY RESPONSE TO TERRORISM COURSE	21%	.	1%	19%	.	9%	31%	63%	.
U.S. ARY CHEMICAL SCHOOL (USACLMS) TRAINING PROG	0%	.	1%	2%	0%	0%	3%	10%	5%
DOE TRAINING FOR RADIOLOGICAL EMERGENCIES	1%	.	0%	8%	.	0%	6%	48%	.
NEW MEXICO TECH'S INCIDENT RESPONSE TO TERRORIST BOMBING COURSE	0%	.	1%	.	.	.	.	.	.
EPA EMERGENCY RESP TRNG PROG (ERTP)	1%	.	0%	5%	.	0%	3%	13%	.
FBI HAZARDOUS DEVICES SCHOOL	.	.	2%	3%	.	.	.	5%	.
OAK RIDGE INSTITUTE...	.	.	.	1%	0%	1%	6%	15%	5%
U.S. ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES	.	.	.	2%	8%	0%	17%	10%	55%
U.S. ARMY MEDICAL RESEARCH INSTITUTE OF CHEMICAL DEFENSE	.	.	.	1%	5%	0%	17%	5%	29%
MEDICAL MANAGEMENT OF BIOLOGICAL CASUALTIES COURSE...	.	8%	.	1%	13%	3%	34%	5%	74%
OTHER CDC BIOTERRORISM COURSES	.	8%	.	.	12%	.	.	.	86%
U.S. PUBLIC HEALTH SERVICE NOBLE TRNG CENTER	.	.	.	2%	1%	0%	6%	13%	14%

(Continued)

SINCE 1996, HAS YOUR ORGANIZATION PARTICIPATED IN ANY OTHER FEDERALLY-SPONSORED PROGRAMS FOR FUNDING, EQUIPMENT, TRAINING, OR OTHER WMD PREPAREDNESS SUPPORT?

	Fire	Hosp	Law	OEM	PubHl-th	EMS	St EMS	St OEM	St PH
	%	%	%	%	%	%	%	%	%
1ST OR 2ND NATIONAL SYMPOSIA ON MEDICAL & PUB HEALTH...	.	0%	.	.	5%	.	.	.	71%
OTHER FEDERALLY-SPONSORED CONFERENCES...	.	.	.	.	8%	.	.	.	62%
OTHER	6%	6%	3%	6%	4%	3%	11%	8%	10%
NONE OF THE ABOVE	66%	73%	84%	57%	65%	85%	34%	5%	0%

NOTE: DIFFERENT RESPONSE SET FOR EACH GROUP

WHICH OF THE PROGRAMS DID YOUR ORGANIZATION MOST RECENTLY PARTICIPATE IN?
THOSE RESPONDENTS WHO DID NOT ANSWER 'NONE OF THE ABOVE' TO PREVIOUS QUESTION

Most Recently Participated	EMS (%)	Loc OEM (%)	Law Enf (%)	Hosp (%)	Fire (%)	Loc PH (%)	StPH (%)	St OEM (%)	St EMS (%)
1ST/2ND NATIONAL SYMPOSIA ON MEDICAL & PUB HEALTH...	0	0	0	0	0	7	26	0	0
DOE TRAINING FOR RADIOLOGICAL EMERGENCIES	0	3	1	0	1	0	0	0	0
EPA EMERGENCY RESP TRNG PROG (ERTP)	0	4	0	0	1	0	0	0	0
FBI HAZARDOUS DEVICES SCHOOL	0	4	7	0	0	0	0	0	0
FEMA EMERG MANAGEMENT ISTITUTE COURSE (WMD RELATED)	0	15	35	11	3	8	7	5	22
MEDICAL MANAGEMENT OF BIOLOGICAL CASUALTIES COURSE..	0	0	0	2	0	12	19	0	4
MISSING	36	17	17	55	27	15	2	13	9
NAT FIRE ACADEMY EMERG RESPONSE TO TERRORISM COURSE	36	17	0	0	32	0	0	8	22
NM TECH'S INCIDENT RESP TO TERRORIST BOMBING CRSE	0	0	3	0	0	0	0	0	0
NONE OF THE ABOVE	0	2	13	0	2	0	0	0	0
OAK RIDGE INSTITUTE...	9	0	0	0	0	0	0	0	0
OJP ANTI-TERRORISM STATE & LOCAL TRNG GRANTS	9	1	2	0	1	10	5	3	0
OJP FIRST RESPONDER EQUIP ACQUISITION PROG	0	7	4	0	5	2	2	26	13
OJP MUNICIPAL FIRE & EMS EQUIP & TRNG PROG	0	0	0	0	0	0	0	3	4
OSLDPS TRAINING (DOJ-SPONSORED)	0	7	3	0	24	0	0	39	13
OTHER	9	18	13	30	4	7	5	3	9
OTHER CDC BIOTERRORISM COURSES	0	0	0	1	0	7	14	0	0
OTHER FEDERALLY-SPONSORED CONFERENCES...	0	0	0	0	0	13	5	0	0
U.S. ARMY MED RSRCH INSTITUTE OF CHEMICAL DEFENSE	0	0	0	0	0	11	5	0	0
U.S. ARMY MED RSRCH INSTITUTE OF INFECTIOUS DISEASES	0	0	0	0	0	7	7	0	0
U.S. ARY CHEMICAL SCHOOL (USACLMS) TRAINING PROG	0	0	2	0	0	0	0	0	0
U.S. PUBLIC HEALTH SERVICE NOBLE TRNG CENTER	0	5	0	0	0	1	2	0	4

NOTE: DIFFERENT RESPONSE SET FOR EACH GROUP

AVERAGE SCORE FOR THOSE THAT PARTICIPATED IN OTHER FED-SPONSORED PROGRAMS (TRAINING):
HOW MUCH DO YOU DISAGREE OR AGREE WITH THE FOLLOWING STATEMENTS ABOUT THE TRAINING?

GROUP	MRT_Impr	MRT_Adeq	MRT_Relv	MRT_Hrs	MRT_Loc	MRT_St	MRT_Use
Fire	3.2	2.0	3.3	3.5	2.7	.	3.1
Law	3.3	2.2	3.7	3.8	3.4	.	3.9
PubHlth	3.5	2.2	3.6	3.8	3.2	.	3.6
EMS	3.6	2.0	4.0	3.4	3.6	.	3.9
St PH	3.6	2.6	4.0	4.1	.	3.8	3.5

NOTE: FIRE, LAW, LOCAL AND REGIONAL EMS, LOCAL AND STATE PUBLIC HEALTH

IF THE PROGRAM FROM WHICH YOU MOST RECENTLY RECEIVED TRAINING
PROVIDED SUPPORT TO IMROVE THE OPERATIONS/PREPAREDNESS OF YOUR OWN ORG
AVERAGE SCORE: HOW MUCH DO YOU DISAGREE OR AGREE WITH THE FOLLOWING STATEMENTS ABOUT THE TRAINING?

GROUP	Sup_Impr	Sup_Adeq	Sup_Relv	Sup_Hrs	Sup_Loc	Sup_St	Sup_Use
OEM	3.6	3.0	3.3	3.6	3.4	.	3.6
St EMS	3.3	2.5	3.8	3.9	.	3.5	3.6
St OEM	3.7	3.1	3.6	3.5	.	3.3	3.8

NOTE: LOCAL AND STATE OEM AND STATE EMS

FOR THE FED-SPONSORED PGM MOST RECENTLY PARTICIPATED IN
AVERAGE SCORE: HOW MUCH DO YOU DISAGREE OR AGREE WITH THE FOLLOWING STATEMENTS ABOUT THE TRAINING?

MRTh_Impr	MRTh_Hrs	MRTh_Relv	MRTh_Use
3.8	4.4	4.3	3.9

NOTE: HOSPITALS ONLY

AVERAGE SCORE FOR THOSE THAT PARTICIPATED IN OTHER FED-SPONSORED PROGRAMS (EQUIPMENT):
HOW MUCH DO YOU DISAGREE OR AGREE WITH THE FOLLOWING STATEMENTS ABOUT THE EQUIPMENT?

GROUP	MRE_Impr	MRE_Relv	MRE_Adeq	MRE_Cost	MRE_Use
Fire	3.7	4.0	3.7	4.1	3.7
Law	2.7	2.7	2.9	2.7	2.7
PubHlth	3.9	3.7	2.7	4.2	4.4
EMS	.	.	.	.	.
St PH	.	.	.	.	.

IF YOUR ORGANIZATION PLAYED A ROLE IN ADMINISTERING SUPPORT PROVIDED BY
THE PROGRAM FROM WHICH YOU MOST RECENTLY RECEIVED EQUIPMENT
AVERAGE SCORE: HOW MUCH DO YOU DISAGREE OR AGREE WITH THE FOLLOWING STATEMENTS ABOUT THE EQUIPMENT?

GROUP	Adm_Impr	Adm_Info	Adm_Adeq	Adm_Flex	Adm_Use	Adm_Know
OEM	3.4	3.3	3.0	3.2	3.7	3.1
St EMS	3.3	3.1	2.6	2.9	3.9	3.1
St OEM	3.3	3.5	3.0	3.4	3.8	3.4

NOTE: LOCAL AND STATE OEM AND STATE EMS

WHAT FACTORS LIMIT YOUR ORGANIZATION'S ABILILTY TO PARTICIPATE IN FED-SPONSORED TRAINING PROGRAMS?

	Fire	Law	PubHl-th	EMS	St PH
	%	%	%	%	%
NOT ELIGIBLE	9%	7%	3%	9%	10%
UNAWARE	61%	68%	59%	71%	38%
CONTENT NOT RELEVANT	17%	7%	14%	7%	17%
TIME COMMITMENT EXCESSIVE	28%	30%	34%	35%	36%
NOT SCHEDULED AT TIMES WE CAN ATTEND	34%	10%	6%	29%	7%
POORLY ORGANIZED	10%	3%	3%	4%	12%
COST IS EXCESSIVE	39%	38%	40%	40%	33%
PREPAREDNESS WOULD NOT BE IMPROVED	1%	4%	2%	3%	5%
MORE IMPORTANT RESPONSIBILITIES	10%	8%	7%	13%	14%
NONE OF THE ABOVE	8%	8%	16%	6%	29%

NOTE: NOT ASKED OF LOCAL/STATE OEM, STATE EMS OR HOSPITAL

WHAT FACTORS LIMIT YOUR ORGANIZATION'S ABILITY TO PARTICIPATE IN FED-SPONSORED WMD PREPAREDNESS PROGRAMS?

	Hosp	OEM	St EMS	St OEM
	%	%	%	%
NOT ELIGIBLE	2%	9%	17%	5%
UNAWARE	62%	43%	37%	18%
EQUIPMENT NOT RELEVANT	4%	8%	14%	15%
TIME COMMITMENT IS EXCESSIVE	19%	38%	31%	35%
POORLY ORGANIZED	6%	4%	3%	23%
APPLICATION PROCESS TOO INVOLVED	3%	12%	6%	15%
COST IS EXCESSIVE	21%	32%	26%	8%
PREPAREDNESS WOULD NOT BE IMPROVED	2%	2%	3%	5%
MORE IMPORTANT RESPONSIBILITIES	12%	17%	14%	13%
NOT SCHEDULED AT TIMES WE CAN ATTEND	.	36%	17%	13%
NONE ARE RELEVANT TO HOSPITALS	6%	.	.	.
NONE OF THE ABOVE	19%	17%	20%	35%

NOTE: ONLY ASKED OF LOCAL/STATE OEM, STATE EMS AND HOSPITALS

WHAT FACTORS LIMIT YOUR ORGANIZATION'S ABILILTY TO PARTICIPATE IN FED-SPONSORED EQUIPMENT PROGRAMS?

	Fire	Law	PubHlth	EMS	St PH
	%	%	%	%	%
NOT ELIGIBLE	11%	6%	7%	18%	38%
UNAWARE	72%	60%	69%	71%	36%
EQUIPMENT NOT RELEVANT	17%	9%	13%	6%	33%
POORLY ORGANIZED	4%	4%	1%	6%	10%
APPLICATION PROCESS TOO INVOLVED	14%	17%	4%	9%	2%
COST IS EXCESSIVE	34%	30%	20%	21%	2%
PREPAREDNESS WOULD NOT BE IMPROVED	1%	6%	2%	3%	5%
MORE IMPORTANT RESPONSIBILITIES	7%	4%	3%	7%	0%
OTHER (PUB HEALTH)	.	.	14%	.	14%
NONE ARE RELEVANT TO PUBLIC HEALTH	.	.	1%	.	24%
NONE OF THE ABOVE	6%	14%	9%	4%	14%

NOTES: NOT ASKED OF LOCAL/STATE OEM, STATE EMS OR HOSPITAL; DIFFERENT RESPONSE SET FOR PUBLIC HEALTH

WHAT FACTORS LIMIT YOUR ABILILTY TO ADMINISTER SUPPORT PROVIDED BY FED-SPONSORED WMD PREPAREDNESS?

	OEM	St EMS	St OEM
	%	%	%
NOT ELIGIBLE	9%	20%	0%
UNAWARE	44%	20%	5%
REPORTING PROCESS TOO BURDENSOME	12%	0%	23%
COST IS EXCESSIVE	31%	20%	20%
ORGANIZATIONS WOULD NOT BENEFIT	1%	0%	3%
MORE IMPORTANT RESPONSIBILITIES	14%	14%	5%
WE DO NOT HAVE NECESSARY EXPERTISE	20%	9%	5%
NOT FLEXIBLE ENOUGH	9%	9%	33%
OTHER	7%	31%	23%
NONE OF THE ABOVE	21%	17%	28%

NOTE: ONLY ASKED OF LOCAL/STATE OEM AND STATE EMS

SINCE 1996, HAS YOUR ORG PARTICIPATED IN OR CONDUCTED ANY EXERCISES FOR WMD RESPONSE IN WHICH A FEDERAL AGENCY:

	Fire	Law	OEM	PubHlth	EMS	St EMS	St OEM	St PH
	%	%	%	%	%	%	%	%
HELPED ORGANIZE OR COORDINATE THE EXERCISE	1%	4%	12%	8%	10%	54%	78%	52%
PROVIDED FUNDING TO THE PARTICIPATING ORG(S)	1%	1%	5%	7%	1%	34%	70%	50%
PARTICIPATED IN THE ACTUAL EXERCISE	2%	3%	13%	14%	13%	54%	75%	71%
NONE OF THE ABOVE	93%	94%	84%	86%	82%	29%	8%	24%

NOTE : NOT ASKED OF HOSPITALS

HOW MUCH TO YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS ABOUT EXERCISES YOUR ORGANIZATION PARTICIPATED IN/CONDUCTED IN WHICH A FED AGENCY/ORG WAS INVOLVED:
FED PARTICIPATION HELPED MAKE THE EXERCISE MORE REALISTIC

GROUP	Percent Strong Disagree	Percent Disagree	Percent Neither	Percent Agree	Percent Strong Agree	AVG_ SCORE
Fire	3.6	1.1	8.3	12.8	1.6	3.3
Law	0.0	15.8	9.2	46.7	12.1	3.7
OEM	4.1	3.2	34.8	32.0	15.9	3.6
PubHlth	5.2	2.2	18.4	33.8	36.0	4.0
EMS	8.3	0.0	41.7	33.3	0.0	3.2
St EMS	4.0	12.0	40.0	24.0	16.0	3.4
St OEM	8.1	8.1	37.8	37.8	8.1	3.3
St PH	9.4	6.3	9.4	46.9	25.0	3.7

NOTE: FOR THOSE WHO DID NOT ANSWER 'NONE' TO THE PREVIOUS QUESTION (NOT ASKED OF HOSPITALS)
HOW MUCH TO YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS ABOUT EXERCISES YOUR ORGANIZATION PARTICIPATED IN/CONDUCTED IN WHICH A FED AGENCY/ORG WAS INVOLVED:
W/O FED PARTICIPATION WE PROBABLY WOULD NOT HAVE PARTICIPATED

	Percent Strong	Percent	Percent	Percent	Percent Strong	AVG_
Fire	2.8	7.3	7.3	7.1	2.9	3.0
Law	13.7	6.4	41.6	16.5	5.5	2.9
OEM	30.0	9.9	11.4	30.5	8.3	2.7
PubHlth	23.0	15.5	10.5	26.7	19.9	3.1
EMS	16.7	16.7	16.7	16.7	16.7	3.0
St EMS	24.0	32.0	16.0	8.0	16.0	2.6
St OEM	37.8	13.5	27.0	8.1	13.5	2.5
St PH	25.0	31.3	21.9	6.3	12.5	2.5

NOTE: FOR THOSE WHO DID NOT ANSWER 'NONE' TO THE PREVIOUS QUESTION (NOT ASKED OF HOSPITALS)

HOW MUCH TO YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS ABOUT EXERCISES YOUR ORGANIZATION PARTICIPATED IN/CONDUCTED IN WHICH A FED AGENCY/ORG WAS INVOLVED:
FED INVOLVEMENT HELPED US TEST/IMPROVE OUR CAPABILITIES MORE THAN WE WOULD HAVE OTHERWISE

GROUP	Percent Strong Disagree	Percent Disagree	Percent Neither	Percent Agree	Percent Strong Agree	AVG_ SCORE
Fire	3.7	1.2	9.9	11.7	1.9	3.2
Law	9.5	6.2	46.0	7.9	14.1	3.1
OEM	11.8	4.0	13.8	41.2	19.4	3.6
PubHlth	0.0	6.4	32.4	29.2	27.6	3.8
EMS	0.0	8.3	33.3	50.0	0.0	3.5
St EMS	16.0	4.0	20.0	40.0	16.0	3.4
St OEM	8.1	32.4	29.7	18.9	10.8	2.9
St PH	6.3	12.5	28.1	31.3	15.6	3.4

NOTE: FOR THOSE WHO DID NOT ANSWER 'NONE' TO THE PREVIOUS QUESTION (NOT ASKED OF HOSPITALS)

SINCE 1996, HAS YOUR ORG USED/OBTAINED INFO OR TECH ASSISTANCE FOR WMD PREPAREDNESS OR RESPONSE FROM ANY OF THE FOLLOWING FED-SPONSORED RESOURCES?

	Fire	Hosp	Law	OEM	PubHlth	EMS	St EMS	St OEM	St PH
	%	%	%	%	%	%	%	%	%
CHEMICAL WEAPONS IMPROVED RESPONSE PROGRAM	0%	5%	1%	1%	0%	1%	11%	13%	7%
BIOLOGICAL WEAPONS IMPROVED RESPONSE PROGRAM	0%	5%	0%	1%	3%	1%	11%	18%	24%
CDC's HEALTH ALERT NETWORK	0%	3%	0%	4%	24%	3%	54%	30%	83%
FBI's NATIONAL DOMESTIC PREPAREDNESS OFFICE	2%	4%	2%	14%	5%	4%	51%	63%	57%
FEMA RAPID RESPONSE INFO SYSTEM	3%	3%	9%	9%	5%	1%	11%	33%	10%
CHEMICAL AND BIOLOGICAL (CB) HOTLINE	0%	0%	0%	1%	1%	1%	6%	38%	12%
DOT EMERGENCY RESPONSE GUIDEBOOK	33%	.	13%	53%	7%	38%	66%	78%	24%
DoD CHEM & BIO INFO ANALYSIS CENTER	0%	1%	0%	0%	1%	0%	14%	3%	7%
DoD CONSEQUENCE MANAGEMENT INTEROPERABILITY SERVICES	0%	0%	0%	0%	1%	0%	3%	3%	0%
OSLDPS TECHNICAL ASSISTANCE PROGRAM	1%	1%	0%	8%	3%	1%	11%	80%	33%
CDC BIOTERRORISM RESPONSE AND PREPAREDNESS PROGRAM	.	14%	.	.	23%	.	.	.	90%
OTHER	0%	2%	4%	3%	7%	3%	14%	18%	10%
NONE OF THE ABOVE	59%	64%	75%	33%	52%	59%	20%	0%	0%

DOES YOUR ORG HAVE FORMAL PROCEDURES IN PLACE TO COORDINATE W/ ANY OF THE FOLLOWING FED-SPONSORED SPECIAL UNITS IN THE EVENT OF A WMD INCIDENT?

	Fire	Law	OEM	EMS	St EMS	St OEM
	%	%	%	%	%	%
HHS METROPOLITAN MEDICAL STRIKE SYSTEM	1%	1%	4%	4%	26%	23%
NATIONAL GUARD WMD CIVIL SUPPORT TEAMS	1%	4%	20%	3%	34%	73%
EPA's ENVIRONMENTAL RESPONSE TEAM	6%	6%	14%	4%	14%	35%
EPA's RADIOLOGICAL RESPONSE TEAM	1%	5%	6%	4%	11%	35%
DoD US MARINE CORPS CHEM BIO INCIDENT RESPONSE FORCE	0%	1%	3%	1%	6%	13%
NDMS NATIONAL MEDICAL RESPONSE TEAM - WMD	1%	1%	6%	6%	26%	13%
DOE NUCLEAR EMERGENCY SEARCH TESAM	1%	0%	2%	0%	9%	20%
DOE NUCLEAR INCIDENT TEAM	1%	1%	5%	1%	9%	18%
DOE NUCLEAR/RADIOLOGICAL ADVISORY TEAM	1%	0%	5%	0%	11%	20%
US ARMY CHEM/BIO RAPID RESPONSE TEAM	0%	2%	6%	1%	6%	10%
OTHER	12%	2%	2%	3%	9%	3%
NONE	87%	90%	66%	82%	60%	18%

NOTES: NOT INCLUDING LOCAL/STATE PUBLIC HEALTH; NOT ASKED OF HOSPITALS

DOES YOUR ORG HAVE FORMAL OR INFORMAL PROCEDURES IN PLACE TO COORDINATE W/ ANY OF THE FOLLOWING FED-SPONSORED SPECIAL UNITS IN THE EVENT OF A WMD INCIDENT?

	PubHlth %	St PH %
NDMS DISASTER MEDICAL ASSISTANCE TEAMS	5%	52%
HHS METROPOLITAN MEDICAL STRIKE SYSTEM	3%	33%
NATIONAL GUARD WMD CIVIL SUPPORT TEAMS	7%	57%
EPA's ENVIRONMENTAL RESPONSE TEAM	10%	36%
EPA's RADIOLOGICAL RESPONSE TEAM	4%	38%
DoD US MARINE CORPS CHEM BIO INCIDENT RESPONSE FORCE	2%	10%
NDMS NATIONAL MEDICAL RESPONSE TEAM - WMD	2%	29%
DOE NUCLEAR EMERGENCY SEARCH TESAM	1%	24%
DOE NUCLEAR INCIDENT TEAM	1%	29%
DOE NUCLEAR/RADIOLOGICAL ADVISORY TEAM	1%	26%
US ARMY CHEM/BIO RAPID RESPONSE TEAM	3%	10%
OTHER	7%	7%
NONE	76%	14%

NOTE: LOCAL AND STATE PUBLIC HEALTH ONLY;
NOT ASKED OF HOSPITALS

FED WMD PREPAREDNESS FUNDING THAT IS BEING DISTRIBUTED THROUGH STATE GOVTS IS REACHING LOCAL ORGANIZATIONS AND COMMUNITIES WITH THE GREATEST NEED.

GROUP	Percent Strong Disagree	Percent Disagree	Percent Neither	Percent Agree	Percent Strong Agree	AVG_ SCORE
Fire	21.0	26.7	41.2	6.3	0.0	2.3
Hosp	12.3	19.0	52.5	12.7	0.9	2.7
Law	7.0	27.0	52.9	10.0	1.9	2.7
OEM	13.2	16.6	43.4	16.9	2.6	2.8
PubHlth	5.2	16.5	60.0	14.2	2.0	2.9
EMS	20.6	20.6	51.5	5.9	0.0	2.4
St EMS	8.6	25.7	40.0	25.7	0.0	2.8
St OEM	2.5	5.0	17.5	37.5	32.5	4.0
St PH	7.1	14.3	35.7	35.7	4.8	3.2

WMD FUNDING BEING DISTRIBUTED BY THE FED GOVT DIRECTLY TO LOCAL COMMUNITIES AND LOCAL RESPONDERS IS REACHING LOCAL ORGANIZATIONS AND COMMUNITIES WITH THE GREATEST NEED.

GROUP	Percent Strong Disagree	Percent Disagree	Percent Neither	Percent Agree	Percent Strong Agree	AVG_ SCORE
Fire	20.9	18.2	42.5	13.7	0.1	2.5
Hosp	11.8	22.7	51.8	8.9	2.2	2.7
Law	7.1	24.0	56.3	7.4	4.2	2.8
OEM	13.0	24.8	40.8	11.9	2.2	2.6
PubHlth	7.9	13.7	65.7	10.7	0.4	2.8
EMS	19.1	25.0	47.1	5.9	1.5	2.4
St EMS	5.7	22.9	37.1	34.3	0.0	3.0
St OEM	15.0	22.5	37.5	17.5	7.5	2.8
St PH	9.5	14.3	45.2	23.8	2.4	3.0

FEDERAL GOVT PROGRAMS FOR IMPROVING LOCAL RESPONDER WMD PREPAREDNESS...
AVERAGE SCORE: AGREE OR DISAGREE

GROUP	Fed_Coord	Fed_Fund	Fed_Fund	Fed_Unls	Fed_Assc	Fed_Neum	Fed_Usef	Fed_Fit	Fed_Fed	Fed_Intl	Fed_Prom	Fed_Loc	Fed_St	Fed_Cyb
Fire	2.5	2.5	2.9	3.3	4.0	3.0	2.6	2.6	3.3	3.8	4.0	4.1	.	3.6
Hosp	2.5	2.6	2.8	2.7	3.8	2.9	2.6	3.0	3.5	3.7	3.8	3.9	.	3.8
Law	2.9	2.7	3.0	3.0	3.7	3.1	2.8	3.0	3.4	3.9	4.0	4.0	.	3.9
OEM	2.7	2.7	2.9	3.1	3.8	3.1	2.7	2.9	3.3	3.8	3.9	3.9	.	3.7
PubHlth	2.9	2.7	2.8	2.9	3.9	3.2	2.6	3.0	3.5	3.5	3.8	4.0	.	3.7
EMS	2.8	2.5	2.9	3.1	3.8	3.2	2.6	3.1	3.4	3.7	3.7	4.1	.	3.6
St EMS	2.5	2.5	2.7	2.9	4.0	3.1	2.4	3.2	3.0	3.7	4.2	.	4.3	3.9
St OEM	2.1	2.4	2.5	3.2	4.1	3.5	2.2	3.2	2.9	4.1	4.2	.	4.6	4.1
St PH	2.2	2.5	2.5	3.1	3.8	3.2	2.1	3.3	3.1	3.9	3.8	.	4.3	3.9

NOTE: SLIGHTLY DIFFERENT RESPONSE SET FOR LOCAL ORGS AND STATE ORGS

WHAT IS THE SINGLE MOST IMPORTANT WAY THAT THE FED GOVT CAN SUPPORT THE EFFORTS OF LOCAL ORGANIZATIONS LIKE YOURS TO IMPROVE THEIR WMD PREPAREDNESS?

MostImportantWay	EMS (%)	Loc OEM (%)	Law Enf (%)	Hosp (%)	Fire (%)	Loc PH (%)	StPH (%)	St OEM (%)	St EMS (%)
OTHER	0	5	4	5	1	6	10	11	10
DIRECT FINANCIAL SUPPORT	22	39	32	37	42	25	61	49	38
EQUIPMENT PROCUREMENT	12	20	6	5	6	0	0	27	7
TRAINING OR TRAINING AIDS	37	13	34	20	35	17	5	3	14
EXERCISE COORDINATION AND SUPPORT	6	4	7	3	1	7	5	0	7
DISTRIBUTION OF WMD TECHNICAL INFORMATION	4	1	3	1	1	1	2	0	0
RESEARCH & DEVELOPMENT ON WMD PREPAREDNESS & RESPONSE	0	4	3	1	2	3	2	8	3
OUTREACH TO STATE & LOCAL ORGS	18	12	8	17	11	12	2	0	21
DISSEMINATION OF INTELLIGENCE DATA	0	2	3	5	2	1	2	3	0
NO IMPROVEMENT NEEDED	2	0	0	0	0	1	0	0	0
ENHANCE CURRENT SURVEILLANCE SYSTEMS...	0	0	0	2	0	5	10	0	0
MAINTAIN A NATIONAL PHARMACEUTICAL STOCKPILE...	0	0	0	3	0	6	0	0	0
ESTABLISH A CENTRALIZED COMMUNICATION SYSTEM...	0	0	0	1	0	16	0	0	0
ESTABLISH A RAPID-RESP & ADVANCED TECH LAB...	0	0	0	1	0	0	0	0	0

NOTE: DIFFERENT RESPONSE SETS FOR EACH GROUP

WHICH OF THE FOLLOWING AREAS OF WMD PREPAREDNESS DO YOU FEEL THE FED GOVT COULD IMPROVE ITS SUPPORT?

	OEM	St EMS	St OEM
	%	%	%
CONDUCTING ASSESSMENTS OF PREPAREDNESS NEEDS...	54%	54%	28%
PREPARING TO COORDINATE AND MANAGE...	35%	17%	33%
DESIGNING WMD RESPONSE PLANS...	52%	46%	50%
DEVELOPING FRAMEWORKS FOR MUTUAL AID W/IN OUR JURISDICTION	17%	23%	13%
DEVELOPING FRAMEWORKS FOR MUTUAL AID W/ OTHER REGIONS	24%	43%	23%
IMPROVING COMMUNICATIONS CAPABILITY...	42%	54%	50%
ESTABLISHING/CONDUCTING REGIONAL WORKING GROUPS...	52%	54%	48%
OTHER	3%	17%	20%

NOTE: ONLY ASKED OF LOCAL/STATE OEM AND STATE EMS

WHAT ROLE DO YOU FEEL WOULD BE APPORPRIATE FOR THE U.S. MILITARY TO PLAY DURING A RESPONSE TO A DOMESTIC WMD INCIDENT?

	TYPE OF ORGANIZATION							
	Fire	Law	OEM	PubH-lth	St EMS	St EMS	St OEM	St PH
	%	%	%	%	%	%	%	%
MAINTAIN ORDER/PROV SECURITY	71%	65%	64%	79%	66%	66%	33%	69%
ADVISE OTH RESP ORGS...	56%	56%	64%	51%	57%	69%	50%	79%
CONDUCT NEEDS ASSESS...	48%	43%	37%	28%	38%	20%	15%	24%
PROV PERSONNEL & EQUIP...	87%	88%	90%	84%	78%	77%	83%	86%
SET UP KITCHENS...	61%	66%	67%	52%	49%	54%	50%	57%
ASSUME ROLE OF LEAD AGENCY...	10%	16%	6%	16%	15%	6%	3%	0%
NO FORM OF PARTICIPATION...	1%	3%	1%	0%	6%	3%	3%	0%
OTHER (specify)	0%	2%	1%	1%	1%	9%	20%	0%

NOTE: HOSPITALS NOT ASKED THIS QUESTION

DO ANY OF YOUR ORGANIZATION'S CRITICAL RESPONSE FUNCTIONS (e.g., COMMAND, CONTROL, COMMUNICATIONS, DISPATCH) DEPEND ON COMPUTER SYSTEMS?

GROUP	% YES	% NO
Fire	74.5	25.5
Hosp	95.7	4.3
Law	65.8	34.2
OEM	79.0	21.0
PubHlth	69.3	30.7
EMS	67.6	32.4
St EMS	67.6	32.4
St OEM	85.0	15.0
St PH	97.6	2.4

FOR THOSE RESPONDENTS WHO ANSWERED 'YES' TO THE PREVIOUS QUESTION:
HAVE ANY OF THESE CRITICAL COMPUTER SYSTEMS EVER BEEN THE TARGET OF A CRIMINAL ATTEMPT TO:

	Fire	Hosp	Law	OEM	PubH-lth	EMS	St EMS	St OEM	St PH
	%	%	%	%	%	%	%	%	%
GAIN UNAUTHORIZED ACCESS?	1%	10%	5%	9%	7%	0%	26%	26%	20%
DAMAGE OR IMPAIR SYSTEM FUNCTIONING OR OPERABILITY?	1%	8%	1%	7%	12%	2%	13%	26%	20%
OTHER (PLEASE SPECIFY)	0%	7%	0%	0%	5%	0%	4%	3%	5%
OUR COMPUTER SYSTEMS HAVE NOT BEEN TARGETED IN THIS WAY, TO OUR KNOWLEDGE	97%	90%	94%	87%	84%	96%	70%	62%	61%

HAS YOUR ORGANIZATION EVER REQUESTED ASSISTANCE FROM THE FBI, INCLUDING THE FBI'S REGIONAL COMPUTER CRIME SQUADS, FOR ANY OF THE FOLLOWING:

	TYPE OF ORGANIZATION								
	Fire	Hosp	Law	OEM	PubHl-th	EMS	St EMS	St OEM	St PH
	%	%	%	%	%	%	%	%	%
TO REPORT, INVESTIGATE, OR SEEK ASSISTANCE...	0%	6%	5%	3%	0%	0%	3%	3%	0%
TO REQUEST ASSISTANCE IN ORDER TO STRENGTHEN...	0%	5%	0%	1%	0%	0%	3%	5%	7%
NONE OF THE ABOVE	96%	93%	94%	90%	97%	99%	80%	90%	88%

DO YOU PERSONALLY SERVE A SPECIFIC WMD ROLE WITHIN YOUR ORGANIZATION?

GROUP	% YES	% NO
Fire	42.3	57.7
Hosp	40.9	59.1
Law	37.8	62.2
OEM	68.0	32.0
PubHlth	56.9	43.1
EMS	30.9	69.1
St EMS	76.5	23.5
St OEM	92.3	7.7
St PH	92.9	7.1

TAB 8 TO APPENDIX G (Survey Information)—SURVEY COMMENTS

SURVEY COMMENTS

The following were excerpted from the comments provided by the survey respondents.

Fire Departments

"Being from a small town I feel lost on a lot of issues concerning WMD."

"Train the trainer courses we attend [sic] 18 months ago have to date not been followed up with course material, training aids or monitoring equipment needed to train other responders. Local gov't agencies do not have financial resources to cover these costs."

"Need to focus funding on more realistic scenario areas (such as explosives) and spread over a larger number of communities."

"It is good to learn the proper procedures for identification of an incident, but it is disheartening to not have the funding or equipment to implement any action or measures to control the situation other than evacuation and wait for the 'government' to show up. We are the first responders – help us help you."

"Information about WMD risks and programs developed to assist 1st responders gets lost at regional and state levels. The Federal Gov't, if it's going to really support those who will [be] 'on scene' first, must get by all the upper-level agencies who want to make claim to resources, and get information directly to local fire and police units."

"Process and paperwork is to much to ask of a volunteer Chief." "No time for this. Pay people if you want this done. Too many other things to focus on."

"We need funds to trickle down to local HAZ MAT teams. Most municipalities do not believe it is a problem that they will face. We must educate the political powers that be.

"I feel that some local governments do not fully comprehend the potential – they feel it won't happen to them."

"We need recommendations on the risk our area is in for WMD."

"Our department covers a very rural area…we need programs that provide us with training and scenarios that we see as a realistic threat to our community."

"Current Federal grant/coordination are real confusing."

"Doesn't seem [that] WMD effort[s] are coordinated across [the] Nation."

"I filled out a state WMD response need questionnaire with <<redacted>>. I have heard nothing from them since is was returned in approximately November 2000."

"There needs to be a special program at low/no cost to local volunteer response groups for training, exercises and equipment done at a local level."

"Presently, the Federal grant application process is laborious and cumbersome."

"One of the largest challenges was providing adequate training for all first responders in mass decontamination. The need for this training exposed the fact that this type of training was non-existant [sic] or unavailable from any Federal WMD program."

"A large amount of money, training and effort has been directed at the 120 largest cities in America. From my perspective it appears that there is either no thought or very little thought given to the fact that other areas of our country can be vulnerable to terrorist attack."

"…you should follow the recommendations as noted in the 'America's Achilles Heel' by Richard A. Falkenrath, Robert D. Newman, and Bradley A. Thayer instead of reinventing the wheel."

"The Federal government has pumped millions of dollars into Civil Support Teams that most likely will never use the hazardous materials technician training that they have received. Yet the <<redacted>>'s Hazardous Materials Team and others like us around the nation, annually respond to incidents and we must beg, borrow and scrape to get funding, training and equipment. Something is drastically wrong with this scenario."

"Let programs be known."

"WMD program is an ill conceived top down approach."

"The military is great to work with but would overwhelm most initial incident management teams."

"If these threat[s] are as real as they appear to be we need a lot of work and quickly."

"The organizations all need to be brought together and teach off the same page. It seems each government branch has some type of WMD training that is unique to them, when in reality it is all the same."

"[Send] sustainment funding directly to local jurisdictions who have operational capability."

"DOJ has consistently supported the local first responder – the others just talk about support."

"In a city of our size the response resources to a WMD [incident] would be out stripped instantly… What we need to know is what we can do to help ourselves before State and Federal assistance arrives."

"Small departments like ours do not have the resources or the money available."

"More training and assistance to more rural dept's. People and equipment are short in rural areas. Training is limited."

"Needs to be coordination with local community programs, especially those close to major population areas or military facilities"

"The rural and smaller areas of the state have seen little to no support. This includes resources, equipment and training. It never seems to get past the agencies that need it the least!"

"The President needs to appoint an individual to a cabinet level position with an adequate staff to develop a clear plan for the Country's defense against WMD events. Using this plan, direct each Federal Agency to develop their tasked capabilities in a coordinated manner that will assist State assets in supporting local responders who will assume the primary responsibility of responding to and commanding a WMD event."

"Every Federal agency involved in WMD defense see the available funding as a means of increasing their own agency programs and needs and too often cannot or do not see the "national" picture. Local responders too often are not included in the planning stages and usually are the last level of government to see funding when it is clear to most people that locals will be the first on the scene and responsible [for] short term mitigation and long term recovery."

"It appears that a lot of WMD programs and information don't reach the local levels. Federal programs an[d] information relating to WMD should be sent directly to all first responder agencies."

"Offer training on the weekends (regionally) so paid call and volunteer personnel can attend."

"We need to know what potential exposure we have in our area. We have no idea if we should be preparing for these incidents or not."

"National policy focus. Mass care capability is lacking (critical need!!!)"

"Need to identify federal resources and how to access these resources."

"We need a lot more funding in order to do it right! Funding should not be based on population alone."

"The WMD money went to the large cities that could already afford the equipment."

"The federal government should require joint exercises involving fire, police, EMS, and state/federal government. Occasionally. All those organizations that would respond to a WMD incident should attend. This could be done on a semi-annual basis."

"Being volunteer it is difficult for Federal programs to get down to us. Federal programs could be handled through the county EMA or better through the county vol[unteer] firemens associations."

"Our community is relatively small—our biggest concern would be the transportation of WMD and/or terrorist action on the Interstate Highway that goes through our community."

"Publish a catalogue with all the resources available to a local agency.... need more and better training material."

"Previous funds to responders were wasted. The direction is not focused, roles not defined, no clear plan (that we can see), duplicate systems being developed."

"We are a small department. WMD-related issues are not that important to me but should be to a bigger department."

"Need for... sophisticated equipment to get into the right hands on a regional, county level; assistance in planning, conducting and financing realistic, scenario based training exercises on a regional basis; strong military support. Direct financing of fire and police agencies—except the major metro. cities—would be a mistake."

"Funding would help. Training provided <u>free</u> to local agencies, here or near here, would help... we are financially unprepared for any disaster."

"I represent a small rural district with a response force of virtually all volunteers. I am sure there are many federal resources available, relative to WMD, unfortunately stay[ing] prepared for the common crisis seems to keep us busy enough."

"...small departments as ours are spread way too thin as it is... I wish funding was there to broaden [our view], but it is not."

"Allow the people who may be in harm's way initially [to] have input in the planning process to develop a national response system that makes sense and is not driven by politics... When large sums of money are available to improve a local situation the usual federal and state politics make fair distribution impossible. Regulatory agencies made up of responsible local responders should be the ones to decide where and how monetary or national aid is dispersed.... politicians should have no say."

"We are a resort community of 40,000 to 50,000 in the summer that changes weekly. I feel this makes us vulnerable for attack especially biological which could be spread as vacationers go home each week."

"Military reluctance to provide mapping and (JCIT) inter-operable radio for the coordination of consequence management activities."

"Please bring training & equipment & access down to the bottom of the list. Small rural areas need this as much as anyone else. Don't keep everything at such a high level that we don't know about it! 'Volunteers' have to be able to be incorporated."

"Just like most federal projects, the assistance goes to major cities and key (political) communities. Most of us in the outback receive very little assistance. Some of us have major potential problems and are told don't worry it will never happen to you anyway..."

Law Enforcement

"Much of the money has been siphoned off to State and other entities (like consultants). If there is not enough money, give it all to local first responders."

"Give more info. and assistance (funds, training, equipment) to small budgeted local departments."

"A greater effort to make Federal resources available and known to local agencies."

"The grants being made available through OES are a great source for WMD type equipment."

"Federal Government should reach out to local police agencies to provide information, training and equipment procurement data on WMD programs to aid in planning and preparing for incidents."

"Federal programs often overlook township governments. We usually hear of programs after they are over."

Our organization is very inadequate in training, planning, and responding to any WMD incident. It is, however, a source of concern for me as there are two (2) nuclear facilities within close proximity… As the facilities are in rural areas, I would imagine a terrorist feeling these … to be easy targets."

"It would be nice to get some training and possibly updates."

"Federal grant applications are usually complicated and too time consuming to complete, especially when the grants are generally awarded to much larger agencies…"

"Too many reporting requirements, which is very time consuming for smaller agencies with limited staffing and resources."

"Generally, there are too many 'strings' attached to Federal grants."

"…this is a topic that should be given high priority nationwide in both information materials and training."

"Being a very small rural police department we feel WMD should be in the hands of the military or state police agencies or the FBI. Most departments under 25 members do not have the budget or manpower."

"The only WMD training I have heard about is from other local agencies. Let us know what is available."

"Small communities have very limited resources and funding."

"The flow of information and communication about WMD seems lacking."

"Let's have a focal point for coordination – "

"Let's get on the ball on development of vaccines and detection."

"Small cities such as this have neither manpower or equipment…"

"Tabletop and field exercises should be done by Federal programs like Operation 'Topoff" at least yearly for al MMRS cities."

"Federal programs should include local responders in a bottom-up/operations focused 'concept of operations' development process. Local responders need to help build training programs and capabilities."

"My main schooling and contact Federally to date has been with FEMA and their Emmittsburg facility. The experience was super. The training was top notch, and I strongly support it being continued."

Hospitals

"There is little to no coordination at the federal level & too much duplication."

"WMD/HM training is very expensive. The information needs to be presented in an all hazards format to start."

"Hospitals often lack the technical resources needed for WMD response – especially with civilian incidents."

"Information/suggestions need to be sent to all hospitals for inclusion in local disaster plans."

"I believe it is only a matter of time before a major population center is targeted by one of these wackos."

"We are a 59 bed, primary hospital… We do not have the resources – human and other – to mount aggressive programs."

"Need to do a better job of disseminating information to our hospital on the availability of funding for training, equipment and other needs."

"Need equipment and stockpiles."

"Very few people in local hospitals will ever pay any serious attention to WMD issues – other than to request financial support that they can divert to other local projects… So, WMD is not even a priority when it is much more likely that we'll be hit by a hurricane."

"Don't just offer training to the top 100 cities."

"Our hospital does not have the resources and capacity to care for our patients on a day to day basis, much less prepare for a WMD incident. Get real!"

"Unaware of any of the programs mentioned [in the survey]."

"While I am in complete agreement that we, as a nation, need to be prepared to deal with incidents of terrorism I think we need to further exam[ine] the state of our emergency systems. This country's Emergency Departments are unable to care for the current load of patients in an effective manner and even an epidemic of routine disease will overwhelm the system… …there is a profound shortage of nurses as well as space."

"A long-term solution should include bolstering of this nations emergency systems to integrate preparedness for WMD and other events … of national importance. This includes natural epidemics as well as natural disasters."

"Need more resources for training and PPE, etc."

"We need info – practical, user-friendly."

"What programs???"

Local Public Health

"WMD preparedness is a huge challenge. Capacity of local health jurisdiction to respond in a rapid, effective fashion will take a major investment in staffing, training, and communication systems. This capacity can also be used to respond to non-WMD communicable disease and environmental toxic effects."

"We are a small public health nursing agency. We provide nursing care to individuals in their homes and various public health programs and activities. We recognize that bioterrorism and WMD are issues that should involve public health. We would work with other county entities should an incident occur. We would probably not be the lead."

"Our State Health Department HIN and HAN staff and web site has been very helpful with linkages to resources on WMD bioterrorism, etc. They are my connection to everyone else."

"Screening tool designed for local health departments. Ours is a regional state health department. Our response should reflect that."

"We have been the beneficiaries of <u>much</u> attention due to <<redacted>>, but all exercises and funding have either been directed to <<redacted>> City or the State agencies. Our valley has 15 cities, all [unreadable] dept., so exercises or resources that are not locally driven will not meet our needs. We have had <u>numerous</u> exercises, none of which really tested the total system."

"You really need to do more to assure broad local involvement and integration." We recently had a BIG FEMMA exercise which was very extensive and probably expensive, but it was of little help to us as it was not focused on local issues."

"Need to develop a family of plans (local, state, national) with well developed/clear command and control 'triggers'. Central web site (interactive) with funding sources/requirements."

"We need to get moving on Smallpox issue."

"Small rural counties feel left out. There is no specific funding for WMD at the county level. Many local agencies see the WMD possibilities as remote. There is no state reimbursement for WMD programs."

"Our biggest problem is lack of local funding to access or send staff to training outside of [our state], and even to some courses or exercises within [our state].

"Why was this survey geared to health departments? In small cities police/fire responsible for this area of concern. Our 'health' department had no idea what you were talking about."

"As a county health jurisdiction, the only funding we have for WMD is a tiny grant from the state level health department for bioterrorism planning, but we have major responsibilities in the MMRS planning."

"Need more involvement from USDA and Interior (nets, lab teams, etc.). Need more web-based training."

"Some duplication of programs exists—maintain single point of contact for requests re: training, equipment, assistance, etc... The culture of public health agencies is quite different from the culture of most emergency response, WMD agencies. The DOJ training was useful in understanding the other culture and recognizing that we will have to learn to communicate in their language because it will not be their priority to learn our language and methods."

"Hospitals have been totally forgotten and have not received any money for planning or preparedness. They are the cornerstone of response to these events. Without them the government agencies can't do anything."

"WMD training and equipment are not yet at the local level. Supporting public health infrastructure on a sustained basis for the 3,000+ counties is the best way to help with this potential situation."

"Current Federal support is poor—multiple programs w/conflicting eligibility factors, differing funding streams, poor coordination at the local level. Many programs assume that traditional emergency responders (e.g., fire departments) will be in the lead on WMD events—this is a poor/invalid approach that leads to poor planning, local conflicts, and poor resource allocation. The real need is to develop general local [unreadable] capacity w/flexibility in roles and leadership based on the event and its requirements."

"The level of clarity and coordination among Federal agencies is appalling, and very dysfunctional to planning at the local level. For example, it is unclear what roles the military, FBI, USPHS, CDC and others would take; it is also unclear whether or how they would cooperate w/local authorities. Federal agencies have put a lot of informal 'signals' out in the communication environment, but have not explicitly defined their roles or proposed actions."

"We are unaware of most of the Federal programs you mention. Perhaps they are dealing with our state health department, or perhaps only with larger jurisdictions. At any rate, some outreach to inform us of their functions and resources would be helpful."

"Our greatest challenge is fulfilling our routine, day-to-day responsibilities to achieve our basic mission and objectives in public health. We do not have enough time or staff to do everything we are expected to do. This explains the delay in returning the survey. It also means we do not have staff with time to devote to extensive preparations for a remote possibility, when we are overworked trying to cope with reality. We need someone to prepare a cookie-cutter, fill-in-the-blanks manual, if we are to deal with WMD. Thank you."

"Federal programs should support local health departments directly for surveillance. Additional funding necessary for hospitals/ERs to augment medical capacity. Current CDC priorities/budget omits support for these critical responders."

"We are a small health department, but I think we need to think about this potential problem and prepare."

"Programs and monies need to be targeted to population centers—not arbitrarily to 'cities'. This has created a fragmented less efficient effort in <<redacted>> County (pop. ~2 million). <<redacted>> [county] has 40 municipalities—including <<redacted>> and <<redacted>>. Half of the population is left out and the funds are not as efficiently expended—the MMRS grants from HRSS-USPHS DHHS should have been consolidated and funneled at the county level here!"

"Local health department resources are inadequate to perform at the level expected or necessary. CDC funding is only barely adequate to provide a statewide effort and does not cover any additional resources required by local health departments. As far as I know, no DOJ funds have been awarded to the state or local health departments and I doubt if those who control these funds are likely to approve any for that purpose. While the potential for bioterrorism may or may not be great in this country, the consequences of being unprepared are very great. Too many people still look on a bioterrorism event as being a variant of a HAZMAT one; bioterrorism events will likely be very different."

"It seems as though funding for these activities could help strengthen local health department infrastructure—so please make funding flexible—and available to integrate with other health department activities. We do not have the staff or capacity to devote a lot of time or staff to this effort."

"Our public health staff are overextended so it is difficult to train, prepare when staff resources are not available."

"All available training should be collaborative with public health, hospital, EMS primary providers and presented as field exercises by FEMA/SEMO."

"Turnover of staff who attended training has affected us adversely."

"WMD training requirements for basic curricula all levels of health providers—EMT, paramedic, RN, MD; requirements for HCFA reimbursement programs, e.g., medicare, that all health facilities have WMD contingency plans and exercises; JCAHO requirements, too; fund excess capacity in the health care system—somewhere—conus military hospitals? VA hospitals? Teaching hospitals? community hospitals?; Improve FEMA reimbursement to health institutions for care of disaster victims. This would revive NDMS and make more potential capacity to care for WMD victims."

"Need resources for implementation."

"Need the involvement of medical agencies, schools of medicine, large hospitals. Physicians are the most difficult category of professional to engage in this process. They think they are 'in the know' but will be scrambling when an event occurs. p.s. I am an M.D.!"

"Need better delineation of responsibility and coordination at federal level. Also need to redefine programs so that resources go to front line health care providers. Current federal policies re: health do not direct resources to front (e.g., local) lines. CDC funds to states, at least in <<state redacted>>, do not appear to have strengthened capacity."

"We have attended a number of trainings on first responders through local LEPC and the state. The training has helped in preparing the local authorities on

risk and response. These agencies likely have had federal or other group sponsors which are not always highly credited for their support. We are grateful at the local level for training and educational resources. We would always welcome funding or financial support to advance local preparedness."

"Look—we are poorly funded, understaffed, overworked, undergoing reorganization and layoffs. We have a hard time doing our normal job. I believe in WMD terrorism and the like but when we go to training we can't do our normal job. It is very difficult for us. You should develop special units within the military to deal with the problem and not rely on us to do it for you."

"We have participated in one full blown exercise at <<redacted>>. This exercise involved hazardous materials (nerve gas). There is a critical need to develop a realistic table top drill for a biological weapon."

"Much of the district are is rural, low population density. There are neither funds nor personnel to undertake WMD functions. Staffing is limited as it is due to financial constraints; there are few local resources available."

"Utilize public health's well established relationship with the CDC and funnel all WMD-related activities through the CDC rather than having multiple federal agencies reaching out to (and confusing) local and state public health agencies. The CDC does a great job!"

"Perceived and real security needs limit the ability of Federal agencies and facilities located in <<state redacted>> to fully and effectively partner with public health entities. The expected wrangling over who's in control looms as a likely problem if an incident occurs."

"Because we are small rural health department, we do not have resources to provide all needs in time of disaster. We rely on taking care of the first 2 hours until additional support, advice, expertise, and equipment can arrive. We are committed to the safety and well-being of our community with the information and equipment we have."

"Need education for bio terrorism, plans for quarantine and mass burial, surveillance system for bio terrorism detection of index cases, and epidemiological training for outbreak investigation."

"The non-bio preparation is very distracting to bio preparedness. Bio required epidemiologist not first responder activities. I assume bio attack will be covert. Our preparedness for bio attack comes from routine communicable outbreak investigations (TB, measles, pertusiss). We need training and support that bio attack will be similar but on a massive/lethal scale. The key is that bio and to some extent chemical (VX nerve agent) is communicable and may require quarantine. Since anthrax is not communicable, please stop using this as an example of a bio attack. Plague or virulent flu is better."

"Conference/lectures have been very good about telling us what WMD are and that we should be prepared and coordinated. What they lack are real nuts and bolts of 'how to.' How about sample protocols, etc, list of needed equipment and list of potential resources."

"The next generation of attention should include expansion and refinement of informatic networks locally, statewide and nationally. Telemedicine capabilities should be additionally included as a component of future planning. Pursuing technological development at the behest of Federal funding to facilitate rapid identification of threat agents…could serve to save lives."

"The roles and value of including Federal agencies, such as FBI, DOD, and CDC in support of locally based leadership has become more clearly defined as WMD scenarios have been exercised in a spirit of multilevel cooperation."

State Public Health

"Federal programs need to address the reality that most BT-assigned health department personnel are tasked with other jobs. So there is a conflict between planning, training, and drilling for a contingency (e.g., BT attack) and maintaining/improving 'bread and butter' public health programs that address prevalent existing problems (e.g., hypertension.")"

"If first responder funds during the last five years had been spent on state and local health infrastructure the nation would now be better prepared to respond to WMD incidents."

"Absolute need to target states (such as ours) that have been completely left out of Nunn-Lugar-Domenici funding."

"Our state is very densely populated and yet has had no Nunn-Lugar funding, has no NDMS, no HHS-MMSS, no full-time WMD-CST (NGB). As a result, we are years behind our neighbor states with respect to planning and resources for WMD preparedness. Doesn't anyone at the federal level care about our state?"

"The biggest problem is the CDC and other programs, not working with the established emergency

management systems. We use the Federal Response Plan as our model in developing our state plan."

"Feds need to coordinate themselves!!"

"The missing element within the CDC program is the low priority placed on planning and preparedness capacity for WMD at the State level. We are already stretched thin for natural and existing man-made disaster. Working on WMD issues requires more staff time and resources in putting together a NEW program. CDC has only strengthened existing programs, i.e., EPI, HAN, LABS, and not supported integration and coordination for state agencies and myriad of private entities."

"We have learned that certain lobby groups are good at getting money (esp. fire and law enforcement) resulting in a disproportion of asset allocation in communities. The end result of a terrorist event is that people get hurt, become ill or are going to be chronically affected and under current conditions will receive inadequate medical and health care."

"Only a small percentage of federal aid currently is directed at health agencies, mostly going to police/fire/HAZMAT. The health department role is larger than the funding available."

"Model plans would be helpful; model information for public information needed; more emphasis on empowering the citizen to mitigate spread, damage, etc.; more consideration of distribution of meds rapidly than remove traditional 'gatekeeper' who will slow distribution."

"Hospitals are max'd out already. No 'slack' to plan, exercise, etc. Regional groups hold promise for especially large states like <<state redacted>>. Many exercise participants assume much greater medical military assets than presently exist. VA system is not well integrated into state plans (states' responsibility to do this). Need to address psych/mob/panic issues."

"Better coordination between Federal programs would ultimately lead to better coordination of state and local level. A clear declaration of mission, goals and objectives communicated between Federal programs and directed and communicated to State agencies would help to synchronize the programs."

"While those of us studying and working in the field of terrorism preparedness and response understand the risk and place a respectable priority on planning, many public health and health system administrators do not. Federal leaders must stress the importance of reasonable, common sense planning for each community."

"The National Guard CST is of very limited use for our needs. The money spent could be better used for state/local support. These response teams will not be timely or helpful."

"Supplying each state health department with [unreadable] protective equipment and monitoring devices would be helpful. Supplying data and material for the collection and shipping of samples to laboratories would be of assistance."

"Coordinated clearinghouse for support (funding, etc); One number to call up agencies for response (~911); limit funding for 'new' technology and begin supporting program development and expansion—i.e., fund maintenance of programs and people not just computer systems and hardware (non-computer) items such as equipment."

"Better coordination among federal agencies and better communication with state and local government."

"WMD activities should be in a separate cabinet level agency, not buried within FEMA or FBI, for example. The medical community must be trained and be given the necessary resources to deal with a large scale event."

"Continue funding for personnel positions that have the dual-use roles of terrorism preparedness and general public health response."

"Feds need much more coordination, for funding, response, information, etc."

"A great help would be for issues of response to be worked out at the federal level, example: 'what level of personal protection is needed in an anthrax threat situation?' We have had health people and local responders attend federal training and get different answers. This should not have to be resolved in each locality."

"There is a fractured approach to 'bioterrorism' at the federal level leading to a fractured response at the state level. There are events which occur (vinyl chloride finding in drinking water, industrial chemical exposures, chemical spills w/health effects, etc.) which require the same government response as if it were a conventional 'bioterrorism' activity. Thus, I believe the bioterrorism' definition should be broader. i.e., the event which due to its severity, size, location, actual or potential impact on the public's health or welfare or the necessary response effort is so complex that it requires extraordinary coordination of federal, state and local resources."

"More training is needed to help prepare local medical/hospital groups."

Local EMS

"Provide better access to: funding, training, information."

"Healthcare is being strangled by funding cutbacks while the expectations of us are increasing—we are lucky to still provide our traditional role of showing up for a heart attack. Medicare reimbursements are down, HMO's will not approve transports, etc. This forces hospitals & EMS systems to do more with less and the result is a loss of flexibility. . . We are in a crisis from a simple flu epidemic and the Feds want us to be prepared for WMD??? ... It is time the U.S. government agencies realize that we are concentrating on survival—not preparing for WMD."

"[WMD is] not a big threat overall and [we] don't know where to start."

"More training programs geared for EMS, not geared for fire department with EMS assistant."

"We need more awareness and the availability for more hands on training."

"We feel very unprepared to handle WMD incidents due to lack of training in that field."

"Most volunteers in small rural or semi-rural departments do not have the background, the expertise, to fully absorb and/or use the type of information being given out by Federal organizations. Many do not know what information is available to them nor how to request it and from whom. If they do receive booklets or information, it seems to be geared toward large departments in large cities with a great deal more equipment to handle large disasters. It is difficult for smaller communities to relate to most of the information—the 'it can't happen here' syndrome... terrible things can happen in small communities as well as large cities. Suggestions: (1) Several relatively simplistic examples of basic preparedness guidelines / SOPs for today... Emergency plans in some communities date back to the Cold War; (2) Examples of exercises for mutual aid communities with small departments would also be helpful. Don't just tell them to hold them, tell them how; (3) Booklets discussing basic equipment that small departments should have or have access to... Volunteers are very capable of doing many things and are wiling to give their all, they just may not have the type of training necessary to initiate disaster preparedness guidelines for WMD and could use some help with the paperwork. Help to get things set up—then they will run with it."

Regional EMS

"Training should be provided for all emergency services providers no matter what the populations size is."

"Biggest need is disseminating information about available programs (training, information, and equipment)."

"We need help to buy equipment and supplies."

"Many of our corps are volunteer and either do not have the time or staff to participate in these exercises."

"Generally, numerous federal efforts need to be consolidated and centrally coordinated."

"Coordinate on a regional level (planning districts) for more effective planning."

"Federal agencies should investigate the regulatory role of EMS agencies in California so monies can be better disseminated between first responders and transport agencies."

"Coordination between MMRS and DOJ programs is poor."

"Incorporation of hospitals/other medical facilities within WMD is poor -> most plans do not cover this well."

"Too much repetition and cost to re-develop same training programs under a different federal logo… Money would be (much) better spent in equipment and intelligence systems."

"A summary or compendium of what is available and to whom would be helpful."

State EMS

"The common complaint about the Feds is "who is running the show?" DOD, DOJ, CDC, FEMA... There needs to be a clear lead—and the rest need to get off of the front pages... but don't get their letterhead into the local arena—it only created confusion. Also, many lead state EMS agencies only do licensing and certifications, but are positioned within the government to do much more with all [unreadable] coordination."

"I would like to see Federal funding for an FTE for Emergency Planning at each State Department of Health. I see that as the biggest shortfall in our health/emergency medical preparedness."

"...need to understand that most state-level planning and preparedness activities generally follow an 'all-hazards' approach and as such may not specifically address WMD issues, but they are covered nonetheless."

"Be aware that all WMD events are local events with national ramifications. They can be most successfully addressed by local responders who are properly trained and equipped and who deal with hazardous chemicals, explosives, biological outbreaks (flu)... federal resources can assist them in their efforts but never supplant them."

"Federal agencies, especially the FBI, are never good about sharing threat information with the local agencies that have a legitimate 'need to know.' Yet these are the very people upon whom 'the feds' must rely if a WMD incident actually occurs. The FBI always wants information from the locals, but rarely shares what it knows with local law enforcement, much less the local EMS agencies or hospitals."

"Move faster. Require tighter timeframes for state planning and implementation activities."

"We need a clear definition of the roles of the various Federal agencies involved in WMD. It is not possible for us to discern a consistent national strategy to deal with WMD events. I hope national WMD strategy is not as confusing to Federal agencies as it is to us."

"OEP/HHS , including NDMS, NMRT, etc. should be given greater responsibility for WMD, building on its disaster preparedness activities."

"Focus less attention on the urban areas and start looking at suburban/rural America!... The Feds need to see WMD as a public health problem as much as a public safety problem."

"Consolidate for one-stop shopping."

"The public is not well addressed (information, improvement to manage risk, understanding event, assessing impact in chem/bio scenarios). We must do this or our job will be even greater." ... "No good plan yet exists for distribution of pharmaceutical stockpiles.... [or] to address mental health aspects of WMD."

Local OEM

"National pharmaceutical stockpile does not, in my opinion, address the needs of major cities at this time. Responses of C.D.C. stockpile personnel at our recent exercise clearly indicate a need to revise the program. Simply put, <<redacted>> should have a push package."

"There are so many challenges in preparing for domestic terrorism that it would be impossible to address [presumably in the small comment space provided with the survey]. The bottom line is that local governments and organizations do not have the resources to adequately address WMD and build upon what is already in place…"

"More Federal money needs to be spent at the local level rather than being scarfed-up by bickering Federal agencies. Get some WMD policy coordination going at the Federal level."

"The FBI has come around very positively in working with locals in our area."

"I believe that federal money could best be used in maintaining fast response (regional) teams. They could be well trained and equipped to handle WMD situations. Simply granting out money to separate counties would never get them fully capable of handling any WMD situation."

"Most of the federal attention in this area has been on <<large city name redacted>>. In unincorporated <<redacted>> County, we have a population of well over 1 million, as well as the majority of large chemical complexes. We are told if we have an incident we should call on <<large city>>. That theory is fine if emergencies respect jurisdictional boundaries. Since they don't, and a large-scale incident is likely to impact City and County, the City will have the capability to respond while the County's capabilities are nil. Someone needs to figure out that the rest of us are out here."

"Consolidate and find direction."

"The Federal government must begin to use the Incident Command System if they wish to be effective. Currently they just talk ICS."

"…rural jurisdiction[s] are not often considered when we think of WMD, however there are many chemical and biological incidents we could be the starting point for."

"Make information available to local emergency managers."

"Federal agencies need to listen to local jurisdictions as to their needs, not perceived needs."

"WMD program needs to be under one (1) agency, not 'farmed' out to multiple federal, local, special interest groups."

"There appears to be a alphabet soup of Federal organizations that offer grants, each grant having different rules. We need one Federal agency to be in charge of all grants and they need to be funneled through the states."

"DOJ computer system sucks."

"CDCs pharmaceutical stockpile program and release procedures are seriously FLAWED—will not work."

"…the grants to states is a total failure. My county developed a plan and time line to bring 4 agencies to the highest level of preparedness… We received 2 successive years of DOJ equipment funding. Since the states are now involved we have not received any funding. Our plans have stopped."

"…too many federal agencies are involved, too much money is being given to federal agencies."

"A total lack of coordination and control exists at the federal level."

"Too many courses are being developed which conflict with each other."

"There is a dire need to a national strategy or a 'WMD czar'… An across the board response strategy needs to be developed and disseminated."

"Hospitals are the weak link. They will be overwhelmed yet nothing had been done to encourage them to take any steps that will work."

"We have learned that when the Feds pass legislation and finally fund it, they never pass this funding down to where it is needed. Where is the year 2000 and 2001 money??"

"There is a need for 1 source at the Federal level to manage the program."

"All Federal funds/training/equipment needs to come through the state' not directly to local government."

"There is so little funding at the local level, that I cannot even send representatives of other response agencies to get training. I haven't to funding for basic needs like food and lodging, and mileage for these other providers."

"It is my…belief that the Feds should direct their programs at the local level, and bypass the state."

"Ensure all information is reaching the local level in a timely manner."

"The FBI has been extremely helpful and cooperative in explaining what should be done by the community and what we can expect from the FBI."

"A standardized threat assessment process should be adopted by the agencies involved in WMD funding."

"The WMD assessment what lengthy and hard to understand. The asking of forecasting needs 3 years into the future without knowing what would be approved in the first two years made completing this task very difficult."

"Programs provide training and equipment only. Our need is for ongoing funding for personnel to administer programs and for replacement of pharmaceuticals and equipment."

"Funding of and the reliance on National Guard response teams for initial response to WMD incidents is not adequate to protect our citizens. Funding should be supplied to existing police and fire agencies who are going to be the first responders to all WMD incidents."

State OEM

"There seems to be little or no attention toward the need for refresher training and new personnel training."

"Need is for significantly entangled coordination among congressional committees to prevent conflicting efforts, duplication or expenditures."

"[unreadable; probably something like eliminate] the expenditure of funds to 'beltway bandits'."

"Cabinet level Czar for terrorism with funding guidance/control of participating agencies involvement. Would require a national fenced budget for terrorism with decentralized executation by departments following czar's funding guidance. Czar must have the hammer to affect departmental cooperation much as the CJCS now has over Service budgets. Consider placing FEMA in charge of all consequence management funding to include the current OJP equipment program. FEMA has a longer history of funding states through EMAs. Explore methods to improve crisis management response capabilities by civilian agencies to preclude defaulting to 'militarizing' consequence responses.

... FBI cooperation in threat assessments must be mandatory—not voluntary. Means changing WMD coordinators roles to primary jobs—not listing them as additional duties. DOJ training contractors must work through the state EMAs to fill classes—not deal directly with hospitals, fire companies, etc. Recommend national registry of specialized equipment vendors with online contact information. Same for planning and training contractors. Solve the problem of sharing appropriate intelligence trends and emergency information to consequence management agencies from state to county levels. The President must publicly push terrorism awareness. Most governors will not take the lead on their own. Beneficial spin-offs from counterterrorism preparedness should be stressed, e.g., public health disease surveillance, R&D on detection, drugs, antidotes, etc. Legislature standards of compliance for cyber protection by government, business and industry. Continue/expand tax incentives for terrorism by the television and motion picture industries. Increase funding for U.S. Customs inspections at ports of entry."

"The more strings that are attached to federal funds—the less useful they become."

"The COBRA training program at DOJ's Center for Domestic Preparedness is very highly rated by all state and local preparedness who attend from our state. Several key staff from state agencies (police, health, national guard, emergency management) participated in the TOPOFF exercise in Portsmouth, New Hampshire in May, 2000. The experience was VERY helpful to understand local-state-federal response to WMD."

"FEMA's terrorism planning grants which are supposed to result in state and local WMD response plans being developed in a short period of time for a small amount of money are particularly naive. Development of comprehensive WMD response plans for an exotic terrorist attack... is a very complex undertaking which raises numerous controversial issues."

"There are so many different programs that it is impossible to make reliable judgments on which ones to take advantage of."

"The response time for federal assistance teams is too long for them to make a difference..."

"CWIRP results not well marketed to the Nation."

"The Federal WMD funding is going to many non-state [chem/emergency response/bomb] teams duplicating much of the current state response systems. States have been left out of the MMRS and 120 cities program making for a difficult response network with no one leading the effort... Many of the federal training programs are the same thing with a different name, created by different contractors… state and local government have been left out of the process... We have asked for technical assistance and are yet to see any help!"

"Extremely rural areas... cannot be assessed, analyzed or dealt with the same as other urban, suburban or rural areas and by trying to make it fit, no one wins."

"Absence of a single federal agency for combating terrorism (initiative to redefine FEMA's role is not the solution.)"

"Give the preparedness role to FEMA, or to an office in the White House. DOJ should not have any role in consequence management."

"One single federal point of contact. Study to measure effectiveness of current programs, integrating state EM office as a broker for local governments."

"In too many cases, Federal programs completely bypass the state. This confuses and complicates the state's efforts to build a comprehensive response strategy... there are too many programs, and most ignore the states efforts."

"The SBCCOM program did nothing for the state other than allow some limited, individual training. The Equipment Procurement Grant has been too narrowly focused, again, ignoring the state's attempts to develop a statewide response capability."

"All [Federal] actions should be directed towards multi-hazard incidents. Same people will be involved for flood, fire, tornado, bombing, etc."

"A national strategy is needed. A single coordinating agency is needed for all Federal programs. Would like to see more emphasis on programs/training for hospitals related to potential WMD incidents."

"[Our organization's experiences involving Federal WMD programs] have resulted in improved working relationship w/FBI offices in the State—good for state agencies and good for locals."

"It seems all the federal WMD programs are developed to help the larger community. It does not appear the programs have been adapted to meet state needs and issues.... All the federal programs are designed to provide support and training for individual communities—not how a state government should plan a response."

"One of the most significant shortfalls in the WMD training arena is the area of sustainment of proficiency among emergency responders.... while the train-the-trainer approach is the ultimate solution, courses provided by the CDP, N-L-D, LSU, etc...do not truly qualify attendees as 'WMD experts' or 'WMD trainers'."

"..the training provided via CDP, NTS, and other consortium members is excellent. The number of seats provided to states, however, are far too limited to begin to meet the demand. Propose that the consortium of National Training Centers focus on specialized WMD courses and that the WMD 'Basic Track' (e.g., Awareness—Operations—Technician—Incident Command) be left to the States to administer."

"Emergency responders are often confused regarding which training to attend. Formalizing training standards and implementing accreditation to certify training institutions would bring increased standardization to the WMD training arena."

"We do not need DOJ/OJP to tell us how to do exercise development and evaluation. FEMA has taught us how to do this years ago. States need to administer this program at the state level, not directly from fed to locals."

APPENDIX H—HARVARD EXECUTIVE SESSION MEMORANDUM, "INTERGOVERNMENTAL DIMENSIONS OF DOMESTIC PREPAREDNESS"

EXECUTIVE SESSION ON DOMESTIC PREPAREDNESS
79 John F. Kennedy Street
Cambridge, MA 02138
Phone: 617-495-1410
Fax: 617-496-7024

Memorandum

To: The Honorable Tom Ridge, Office of Homeland Security
From: The Executive Session on Domestic Preparedness, John F. Kennedy School of Government, Harvard University
Date: November 2, 2001
RE: **INTERGOVERNMENTAL DIMENSIONS OF DOMESTIC PREPAREDNESS**

Attached please find a memorandum titled "Homeland Security: Domestic Preparedness After Sept. 11, 2001." The memorandum was produced by the Executive Session on Domestic Preparedness, a working group of domestic preparedness specialists, elected officials, federal agency representatives, and academics that convenes semi-annually at the John F. Kennedy School of Government, Harvard University.

The memorandum highlights issues of particular importance to practitioners at the state and local level. The ideas put forth in the document have emerged from several meetings of Executive Session members, all of whom are engaged in some aspect of domestic preparedness. The members and staff of the Executive Session on Domestic Preparedness are ready to explore any issues of interest to the Office of Homeland Security as it undertakes the challenge of coordinating domestic preparedness efforts across the country.

cc: Senate leadership
House leadership
Select committee members

EXECUTIVE SESSION ON DOMESTIC PREPAREDNESS
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Homeland Security: Domestic Preparedness After Sept. 11, 2001

As the Office of Homeland Security begins to assemble resources to coordinate the nation's counterterrorism efforts, challenges for adequate domestic preparedness will inevitably emerge. This memorandum highlights issues of intergovernmental relations that are of particular importance to state and local practitioners.

The Executive Session on Domestic Preparedness (ESDP) is a standing task force of senior practitioners and academic specialists who have been working together for two years on issues of terrorism and emergency management. The ESDP brings together experts with operational experience in diverse professional fields related to domestic preparedness – emergency management, law enforcement, fire protection, public health, emergency medicine, national security and defense, and elected office – to develop practical recommendations for policymakers and practitioners at all levels of government.

Federal, State, and Local Roles

The responsibility for preparing for and responding to a catastrophic terrorist attack is shared by the federal, state, and local governments. Nevertheless, local practitioners will almost inevitably be the first responders following a WMD incident. Much of this has to do with proximity: federal personnel cannot be in all places at all times. In general, it takes federal assets at least four hours to assemble at a disaster scene; it may be several days before the full panoply of federal resources are mobilized and transported to the scene. In addition to their proximity to the attack site, state and local agencies already have institutional infrastructure and equipment in place for responding to natural and man-made disasters, which can be leveraged for responding to terrorism. Still, state and local governments rely on the federal government to develop national priorities, assist state and local governments with threat assessments, determine gaps in national preparedness, and provide technical assistance and specialized resources for state and local planning that meets national priorities. In addition, contentious issues such as funding – which have become more critical since September 11, with state and local governments devoting massive resources to protecting citizens and potential targets, responding to threats and hoaxes, and bolstering preparedness – must be addressed at the federal level. Nationwide priorities must be clearly established so that training; equipment, and resources can be properly targeted to fulfill state and local needs.

This memo, therefore, identifies the key issues that the Office of Homeland Security will need to address as it works with state and local officials. From our unique vantage point, the ESDP has

focused on three major issues of particular importance to state and local governments that are working toward achieving domestic preparedness: *prevention*, *preparedness*, and *sustainment*.

Prevention

The shock of September 11 starkly emphasized the need to improve America's ability to deter, prevent, or interdict an attack. Many of the prevention techniques that are already in place can be enhanced through intergovernmental and interagency cooperation.

- Focus on terrorism. All law enforcement agencies must work together to strengthen the interagency and intergovernmental focus on terrorism. This may be easier for large cities such as New York or Washington, D.C., which have been aware of, and preparing for, the threat of terrorism for years. For many other jurisdictions, the threat of terrorism remains relatively low on the spectrum of public safety priorities. Only by establishing relationships and sharing information can law enforcement and intelligence agencies properly identify and prioritize security threats for specific communities. One avenue for relationship building is the FBI's counterterrorism task forces, which are active in approximately thirty-five metropolitan areas. Similar initiatives need to be established around the country, to address the needs of large and small jurisdictions alike.

- Investigative techniques. Federal and local law enforcement agencies have very strong specialized capabilities to investigate crimes after they occur; yet they are less specialized when it comes to preventing crime. Therefore, dedicated terrorism prevention capabilities, including law enforcement agents, analysts, and interpreters, should be utilized to gather and assess information, without being distracted by other investigations. Intelligence and law enforcement personnel working on counterterrorism matters should also receive special training on working with their communities regarding civil rights and civil liberties concerns that will be of particular import to their work.

- Information sharing. There is an inclination to withhold information either for security reasons or because information may be unconfirmed or incomplete. Lack of established relationships and trust, and differences in organizational cultures, also stymie the flow of information. Timely information sharing among federal, state, and local authorities, however, is critical to preventing or interdicting an attack. Federal agencies must share crucial intelligence with state and local responders who will be "on the ground" if a disaster strikes. Reciprocally, federal law enforcement agencies need to know what local law enforcement or public health officials may be investigating as suspicious. This approach to information sharing must be systematic, not ad hoc; certain situations should automatically trigger formal information sharing. Memorandums of understanding and regular working relationships can help break down historic communication divides.

- Public health infrastructure. Improved monitoring and surveillance are essential to detect and identify a bioterrorism attack or a naturally occurring emergent infectious disease, and quickly mitigate the impact of an outbreak. Public health agencies need more resources to improve infrastructure, especially to take advantage of advances in telecommunication and information technologies. Hospitals and public health laboratories need the capacity (lacking

in many facilities) to assist public health departments by testing specimens in times of crisis. Staffing levels and skills may not be appropriate to meet the challenge of a natural or intentional disease outbreak and must therefore be reevaluated. In addition to revitalizing the core surveillance and detection capabilities of the public health system, the government needs to facilitate dissemination of information among health care professionals and the public, taking advantage of new media such as the Internet.

- Legal authority. Federal, state, and local authorities need to ensure that adequate legal authority exists to prevent or address a catastrophic terrorist threat or attack. Many existing statutes establish aspects of legal authority; however, significant gaps remain. Vague, outdated, and contradictory laws; overlapping jurisdictions; and procedural and professional divides among law enforcement, national security, and public health officials have created a confusing set of laws that do not conform easily to the needs of terrorism response. Advance legal preparation is an integral aspect of a comprehensive national domestic preparedness program.

Preparedness

Unfortunately, every attack cannot be prevented. In the aftermath of the attack on the World Trade Center, the first priority was to rescue as many victims as possible. Miraculously, response personnel were able to pull survivors out of the rubble. It was in those first minutes, hours, and days that rescue workers had the greatest opportunities for mitigating the impact of a disaster by saving lives. After several days of rescue efforts, the focus turned to recovery –which is primarily the responsibility of state and local governments – including removing debris, identifying victims, and cleaning up surrounding areas. Because time is of the essence, particularly when it comes to rescue operations, agencies across geographic and political strata must be prepared to respond rapidly to a crisis and integrate their capabilities with those of other responding agencies.

Domestic preparedness relies on cross-jurisdictional and cross-professional cooperation and coordination between agencies, non-governmental private and not-for-profit organizations, and levels of government that are not accustomed to working together. This is crucial in planning and in response.

- All-hazards disaster management. Where possible, domestic preparedness should rely on the existing systems of disaster management. Training and the construction of systems that have the ability to respond to more routine emergencies, but that can "flex" to address larger or unconventional emergencies are the best investment of a jurisdiction's resources. By utilizing this approach, response agencies will use plans and skills regularly, thus ensuring that agencies are well versed in response protocol, and experienced in working together. This will make it easier for various agencies to collaborate should they need to respond to a terrorist incident.

- Medical surge capacity. Surge capacity is the ability of the healthcare community to handle an abnormally large influx of patients. In the past decade, managed care and other health cost containment strategies have diminished the reserve capacity of our nation's health care

system. Because of inadequate surge capacity, appropriate medical care for victims of mass casualty incidents is far from guaranteed. Government regulations attempt to remedy this problem by requiring that hospitals have sufficient numbers of personnel to meet patient needs for emergency care. Such mandates, however, are vague, unfunded, and do not apply to laboratories, public health officials, or ambulatory providers – groups that are vital in a mass-casualty event. Therefore, the country needs to think about nontraditional ways to buttress medical surge capacity, including non-hospital alternatives. Possibilities include bringing the military, with field medical facilities, or Veterans Hospitals into response planning for a major attack; developing reciprocity agreements (including liability and worker compensation issues) among states for licensed professional personnel; utilizing gymnasiums, armories, and other facilities for mass-casualty incidents; and networking with home-healthcare providers.

- Standardized operational management. When multiple agencies – which may or may not be familiar with one another – respond to a disaster, their management systems need to be highly integrated to avoid confused, delayed, or redundant response efforts. A paradigm of operational command known as the incident management system (IMS), used by the fire service since the 1970's, is beginning to be widely adopted by other state and local response agencies. Efforts to standardize incident management methodology across professions and levels of government should be pursued.

- Training and technical assistance. The federal government has served a central role in providing assistance to state and local first responders to better prepare them to address the terrorist threat. Four principles should guide these efforts:
    - Wherever possible, training and technical assistance should reinforce an all hazards approach to disaster management;
    - First responders need specialized training in recognizing and treating victims exposed to chemical, biological, and radiological weapons;
    - Diffusion of skills to more jurisdictions and professions is essential; and
    - Training must be sustained over time so new personnel are familiar with the protocol and trained personnel do not forget skills.

- Communication infrastructure. Communication systems need to be improved in two respects: capacity and interoperability. In any major disaster, communication systems are pushed to or beyond their maximum operating capacity. Telephone lines must be up and running, however, if responders are to communicate and victims and concerned parties are to access crucial information. Thus, communications capacity must be expanded in order to function effectively in a disaster. In addition, backup communication systems should be in place to meet the operational needs of first responders.

  Interoperability is a second concern: telephones, radios, and walkie-talkie systems used by emergency agencies are not always compatible and responders cannot communicate with one another. Universally accepted interoperability standards and equipment are needed so that radio and telephone communication can take place between responding units.

- Public Affairs. The role of a public affairs strategy before, during and after a terrorist attack is also critical. Concerned citizens turn to the media for information, reassurance, and

critical advice. The media must fill a 24-hour news cycle. If public affairs liaisons are not identified, or if those individuals fail to contribute effectively to news coverage, reporters will be forced to look elsewhere for information. Elected officials and response agencies alike must develop public affairs strategies before a disaster occurs. During a crisis, government officials need to provide a clear and consistent message to the public.

Sustainment

Although there is almost universal support for expanded emergency preparedness and counterterrorism programs in the immediate wake of the attack on the World Trade Center and the Pentagon, this support could wane over time. We must view domestic preparedness as a continuing public necessity, rather than only a response to a specific incident. Thus, as capacity is expanded, there needs to be forethought as to how this new capacity will be sustained if we manage to deter or prevent future attacks. Sustainment is vital at both the operational and programmatic levels.

- Operational sustainment. Sustaining operational capabilities is a challenge because given the relatively low probability that terrorism will affect any single location, equipment specific to domestic preparedness will not be frequently used and may suffer neglect. The best way to circumvent this scenario is to build on the all-hazards approach wherever possible. Training and equipment will be used in regular operations and therefore will be maintained. For WMD-specific training and equipment, federal, state, and local governments should explore cost-sharing incentives so that the responsibility for training is properly distributed and can be sustained over the long-term.

  A sustainment initiative must also recognize that as personnel enter and exit the system, skills are lost and must be restored. Thus a unit that is certified as "prepared" at one point in time may lose a critical mass of trained individuals and thus be effectively "unprepared" weeks, months, or years later. Moreover, skills – like equipment – degrade over time if they are not routinely used. Building on the all-hazards approach, and exercising skills specific to terrorism or WMD response, is essential to sustaining readiness of personnel

- Programmatic sustainment. Sustainment is also an issue at a policy level. If the U.S. is successful in preventing further attacks, the dedication of resources the domestic preparedness program may be called into question. A long-term strategy and system of accountability will lead to the program's overall success.

The challenges facing the federal government in the wake of Sept. 11, 2001 are extremely complex. There is a military response to be waged, a major criminal investigation to be concluded, intelligence to be deciphered, an international coalition to be maintained, and a money trail to be followed. Homeland Security is just one piece of a very large puzzle.

It is, of course, a very important piece. Effective collaboration among levels of government – each drawing on distinctive strengths – is necessary for the United States to prepare for the spectrum of threats it faces.

This document represents the consensus view of the Executive Session on Domestic Preparedness, but the totality of the ideas and recommendations included herewith do not necessarily reflect the views of each member.

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APPENDIX I--NATIONAL EMERGENCY MANAGEMENT ASSOCIATION WHITE PAPER ON DOMESTIC PREPAREDNESS

NATIONAL EMERGENCY MANAGEMENT ASSOCIATION

WHITE PAPER ON DOMESTIC PREPAREDNESS

October 1, 2001

SUPPORTING ORGANIZATIONS: **Adjutants General Association of the United States**
International Association of Emergency Managers
National Emergency Management Association
National Guard Association of the United States

BACKGROUND

Emergency management as a discipline has been shaped by historical events, both nationally and internationally. During World War II, it became apparent for the first time that our nation was susceptible to enemy attack. As a result, the first organization and function of what is called "Civil Defense" was established. The majority of civil preparedness and disaster response capability at the local level had its foundation in the Civil Defense program. Federal financial assistance to state and local jurisdictions for civil defense programs was begun in 1958 and provided federal matching funds (50/50) for personnel and administrative expenditures for civil defense preparedness. Attack preparedness was mandated as a joint federal-state-local responsibility. This funding base provided the very foundation upon which civil preparedness (what we now refer to as emergency management) was built.

The recent terrorist attacks demonstrate the fact that the nation needs to develop a capability reminiscent of the past when there existed a robust state and local emergency management and response capability. A strengthened national program incorporating today's all hazards approach to emergency preparedness is imperative. Congress, federal agencies, governors, state and local emergency management directors, other local officials and all disciplines of emergency responders must work together to develop a strategy for standardized, bottom-up national capabilities to effectively respond to catastrophic disaster situations.

In addition to the States' Principles for a National Domestic Preparedness Strategy, adopted in August 2000, NEMA thinks it critical that the following enhancements be incorporated into a nationwide strategy for catastrophic disaster preparedness. Items are listed by category and not necessarily by priority.

Emergency Preparedness and Response

- Congress should provide to the states immediate federal funding for full-time catastrophic disaster coordinators in moderate and high-risk local jurisdictions of the United States, including the 120 largest cities where training and equipment was provided under the Nunn-Lugar-Domenici domestic preparedness programs. These personnel will have responsibility for developing and maintaining terrorism consequences plans, procedures, exercises, and resources. For those states with appropriate jurisdictional staffing levels already in place, the flexibility to utilize federal funds to enhance the overall emergency preparedness program based on identified priorities is critical. Measures should be implemented to ensure this funding does not supplant existing state and local emergency management funding commitments.

- States need financial assistance to improve catastrophic response and Continuity of Operations Plans (COOP) and Continuity of Government (COG) for states. FEMA should be provided additional funding to develop, construct and/or retrofit federal/state/local command and control centers (Emergency Operating Centers) for NBC events. These coordination centers must exist at each level of government. Alternate EOC locations must be available should the primary center be damaged or destroyed by the event.

- Interstate and intrastate mutual aid assistance must be recognized and supported by the federal government as an expedient, cost-effective approach to disaster response and recovery. The Emergency Management Assistance Compact (EMAC) has been adopted by forty-one states and two territories with additional states planning to join. EMAC is an interstate mutual aid agreement ratified by Congress, passed by state legislatures and signed into law by governors, and is well coordinated with the Federal Response Plan. Other states utilize the existing Interstate Civil Defense and Disaster Compact as well as regional compacts that are

similarly coordinated with existing plans. These complementary operational systems should be linked as the framework and procedures for all response and recovery activities.

- The Emergency Management Accreditation Program (EMAP) should be implemented and recognized by federal agencies as a strategic tool to build greater multi-discipline/all-hazards capabilities at the state and local level, including domestic terrorism. EMAP is a voluntary, national standards and accreditation program for state and local emergency management programs. The initiative is being developed in partnership by NEMA, FEMA and the International Association of Emergency Managers and is currently in the pilot phase.

- FEMA, State and local emergency managers must implement renewed emphasis on family and community preparedness to ensure Americans have necessary skills to survive a catastrophic disaster.

- A standardized national donations management protocol is needed to address the outpouring of food, clothing, supplies, and other items that are commonly sent to impacted states and localities following a disaster. If not handled properly, large amounts of unnecessary or inappropriate donations can add another level of complication to the disaster itself. We believe the "shoring up" of State and local emergency management agencies will provide the necessary organization to improve this system; however, additional planning and an information management capability are desperately needed.

Health and Medical

- The medical surge capacity must be strengthened. The emergency management, medical and public health professions must work with lawmakers to ensure each region of our nation has a certain minimum surge capacity to deal with mass casualty events. Hospitals should agree to provide defined and standardized levels of resources, capabilities and assistance to handle mass casualties, especially those contaminated by chemical/biological agents. Funding for equipment and supplies to accomplish this mission should be provided to develop this additional capability, in exchange for their agreeing to participate as a local receiving hospital and as part of the U.S. Public Health Service's National Disaster Medical System (NDMS). Funding for the health care system for emergency planning and extraordinary operation response costs that are not available from any other means must be provided by the federal government. Additionally, the federal government needs to provide the equipment and supplies to accomplish this mission and develop this additional capability; also, states need assistance to complete the National Pharmaceutical Stockpile distribution response plan.

- State-Local Disaster Medical Assistance Teams should be developed across the country with standardized equipment, personnel and training. These teams would serve as the first line of response to support impacted communities within impacted states, and could be required to respond outside the state as a mutual aid resource upon request. Self-contained capability to respond outside their jurisdiction should be provided by military Reserve Component assets available in each state.

- The current sixty U.S. Public Health Service NDMS Disaster Medical Assistance Teams (DMAT) should be uniformly enhanced for Weapons of Mass Destruction (WMD) response, including focus on personnel protection and training for WMD. Currently only four of the teams have been upgraded and equipped to serve as National Medical Response Teams (NMRTS).

Additional WMD Recommendations

- The Department of Justice should immediately release the FY00 and FY01 equipment funds in order to begin implementation of these recommendations, and then require a basic statewide strategy in order to receive FY02 funds; and further, provide funding to states to administer the equipment program. Also, allow greater flexibility with the approved equipment list in order to accomplish any of these recommendations. Specifically, this should include the use of funds for the purchase of necessary equipment for hospitals and the health care industry, regardless of the private sector ownership of these critical "first receiver" response system components. In addition, Congress should increase funding to DOJ to provide detection, personnel protection and decontamination equipment for the nation's emergency response agencies. Lastly, federal training and maintenance money must be included in any national terrorism response program.

NEMA White Paper on Domestic Preparedness
October 1, 2001

- Congress and the Department of Defense should authorize homeland defense as a key federal defense mission tasking for the National Guard. By providing this authorization and removing restrictive language and funding on utilization of National Guard assets and personnel, the civil-military integrated response will be dramatically improved. In addition, Congress should provide funding to DoD for full-time staffing of state joint civil-military emergency operations centers. Further, Congress should provide funding to National Guard Bureau to complete fielding of National Guard Civil Support Teams in additional states and territories.

- State-Local Urban Search and Rescue capabilities should be developed across the country with standardized equipment, personnel and training. These teams would serve as the first line of response to support impacted communities within impacted states, and may be required to respond outside the state as a mutual aid resource upon request. Self-contained capability to respond outside their jurisdiction should be provided by National Guard assets available in each state. Further, standardization of the national USAR format and approach should be accomplished in such a way that there is a gradation in the USAR response teams to enhance overall national capability.

- The Department of Defense should undertake a review of the distribution of aviation assets to the National Guard in each state, territory and District of Columbia.

- National interagency and intergovernmental information management protocols are needed to support information sharing (ie. Damage/Situation Reports, Warning/Intelligence Reports, Resource Coordination). Further, an unclassified version of INTELINK needs to be developed for use by the greater emergency response community.

- Better federal interagency coordination is needed to assist states in identifying and accessing the full range of federal resources and assistance available to them. Currently, states are left on their own to identify individual agency programs and then contact each agency to determine programs and resources available.

- Security clearances must be more standardized and reciprocal between agencies and levels of government. Use of a compartmented, need-to-know system would greatly facilitate secure sharing of critical intelligence. Additionally, a critical need exists to enhance the ability of local and state officials to receive federal security clearances more expediently.

- FEMA's fire grant program should be expanded and modified to strengthen regional and national, not just local, fire protection capabilities to respond to catastrophic disasters. State level involvement in the program would allow increased coordination and prioritization of resource needs within each state. A comprehensive national strategy would ensure best use of available funding provided to local fire departments to enhance regional and national response capabilities.

- The National Warning System (NAWAS), maintained by FEMA, has been downsized in recent years. This system was designed to provide rapid communications and warning capabilities between federal, state and local emergency management agencies. The Congress should provide funding to rapidly upgrade and expand a sustainable national intergovernmental communication and warning system.

- FEMA, in collaboration with state, local, private and other federal agency emergency response partners, should rapidly develop a standardized emergency responder identification and accounting system to improve personnel credentialing and accountability at scenes of catastrophic disasters.

- The Environmental Protection Agency should be provided funding to develop additional guidance on "shelter in-place" strategies for nuclear/biological/chemical (NBC) events, especially in urban centers.

- There is a need for technology transfer from the federal government and its contractors to state and local governments to support an automated decision support system. Several federal agencies have data that is unclassified that could be used for planning, response and recovery activities. These federally developed systems would contribute immensely to accomplishing many of the recommendations set forth in this paper and do so in a cost effective manner.

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APPENDIX J--THE PRESIDENT'S EMERGENCY SUPPLEMENTAL FUNDS FOR COMBATING TERRORISM[126]

The Administration's budget request for combating terrorism, for Fiscal Year 2002, was $10.3 billion in midsummer of 2001. Following the attacks on 11 September, the President requested $20 billion in "Emergency Supplemental Funds." The Congress responded by appropriating $40 billion in two segments. The Congress appropriated the "Emergency Supplemental Funds", with the stipulation that the President must obtain prior approval before they can be obligated for a specific agency. The Congress also appropriated $20 billion for an "Emergency Response Fund." The President has discretion over these funds, though only a portion of the $20 billion is available for immediate access. Of the remaining amount in the "Response" fund, the Congress has 15 days to disapprove or adjust the funds following notification of proposed obligation from the President. The $40 total includes: $10.2 billion for direct recovery efforts, including $6.3 billion for New York City; $10.8 billion for indirect recovery efforts, including $1.3 billion for airline safety; and $19 billion for combating terrorism.

Emergency Supplemental Funds (in millions)			
Agency	Emergency Supplemental	House (pending)	Senate (pending)
Agriculture	45.1	0	0
Commerce	26.9	20.0	0
Energy	117.7	117.6	245.0
EOP	50.1	0	0
EPA	76.0	161.1	
FEMA	5,500	4,960.0	9,500.0
GSA	200.5	87.3	0
HHS	1,595.0	1,784.6	0
Interior	85.5	77.7	0
Justice	1,112.1	1,528.8	1,396.0
Labor	2,012.6	1,520.1	0
NASA	93.1	27.4	82.0
Nat'l Security	7,349.0	7,243.0	7,349.0
State	0	181.2	0
Transportation	733.5	734.3	800
Treasury	315.2	445.7	300
USAID	0	0	0
VA	2.0	2.0	0
Other*	1,730.2	1109.2	328.0
Total	$20,000.0	$20,000.0	$20,000.0

Emergency Response Fund (in millions)	
Agency	Discretionary Response Fund
Agriculture	95.0
Commerce	0.1
Energy	5.0
EOP	88.5
EPA	0
FEMA	2,000.0
GSA	8.6
HHS	126.2
Interior	3.1
Justice	87.8
Labor	29.0
NASA	0
Nat'l Security	13,396.2
State	427.9
Transportation	614.5
Treasury	59.8
USAID	912.1
VA	0.2
Other*	2,146.0
Total	$20,000.0

*Note: Other in the tables denotes physical security protection for Federal buildings and postal facilities.

Table J.1—Post-September 11 Emergency Funds

[126] The budget figures in this appendix are taken from the OMB July 2001 Report to Congress on Combating Terrorism Spending, the OMB press releases on the President's Emergency Supplemental request, as well as reported Congressional activities as of 5 December 2001.

The following section provides more detail from the President's Emergency Supplemental on spending for those issues on which this Panel had focused its attentions.

Office of Homeland Security

The President requested $50.1 for the Executive Office of the President in the supplemental request. There is $88.5 million in the "Response Fund," which likely explains the "0" for that item in the House and Senate versions of the supplemental. Most of those funds are presumably for the Office of Homeland Security.

Health and Medical Issues

The President's emergency supplemental budget includes $1.59 billion to be funneled through the "Public Health and Social Services Emergency Fund" under the auspices of the HHS Office of the Secretary. The funds are designated as follows:

- National Pharmaceutical Stockpile, $643.6 million
- Smallpox acquisitions, $509 million
- Food inspection and data system modernization, $61 million
- Local hospital assistance, $50 million
- Metropolitan Medical Response Systems, $50 million
- Epi-X (surveillance system), $10 million
- Health Alert Network, $30 million
- Food and Drug Administration evaluation for vaccines, $34.6 million
- CDC laboratory system, $20 million
- Training, $55 million
- State laboratory assistance, $15 million
- Emergency communications, $13 million
- Rapid toxic screening expansion, $10 million
- Surge capacity (international and national), $10 million
- Evaluating mask and respirator effectiveness, $15 million

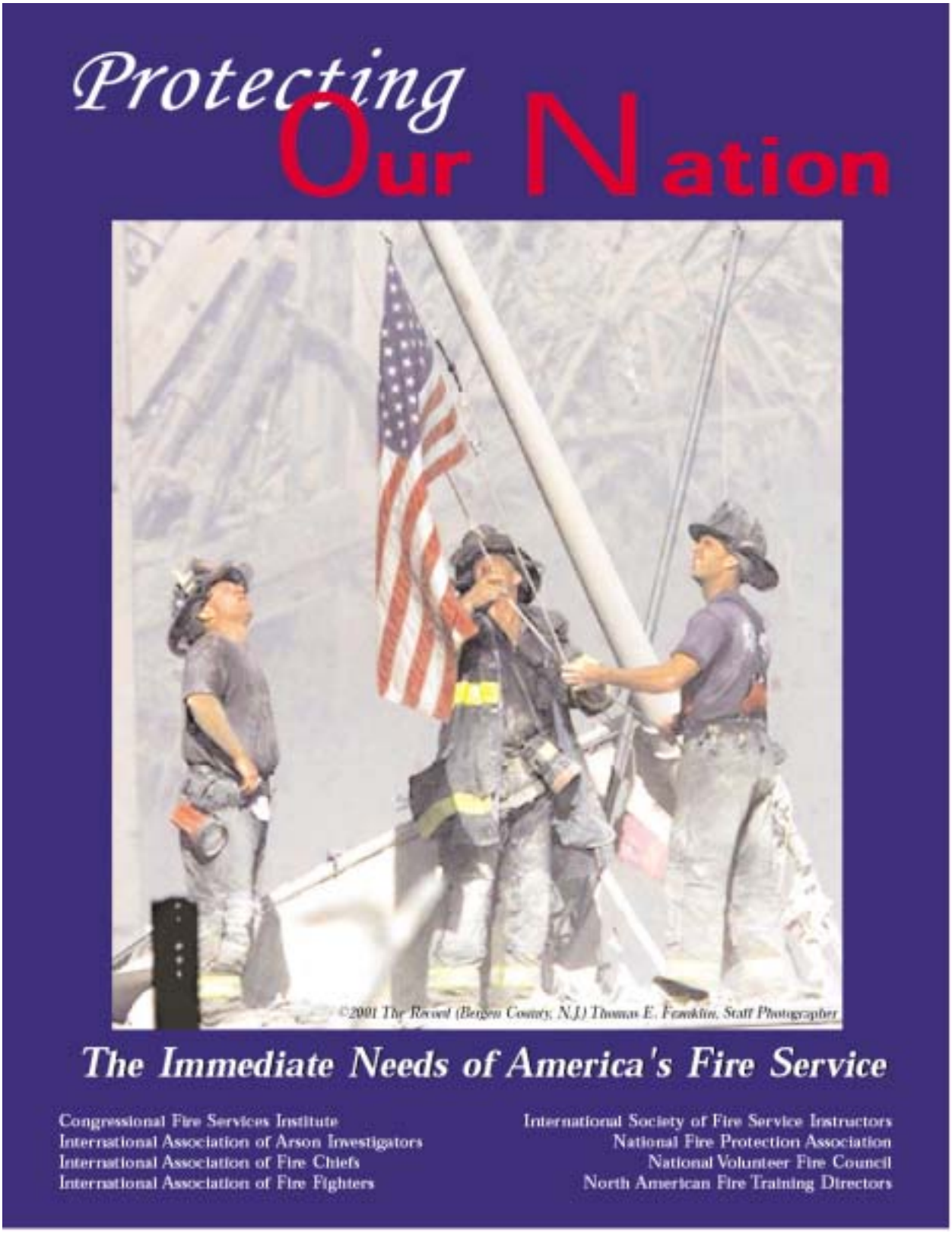
Immigration and Border Control

The Coast Guard is receiving $203 million, of which $33 million is to support maritime threat assessments and port vulnerability assessments. The rest of the supplemental funding is for personnel.

The FAA received $408 million in the President's supplemental. These funds are for procurement to help airlines and airports increase their safety and security.

The Customs Service received $107.5 million to increase inspection efforts at high-risk seaport and land borders from the President's emergency supplemental.

APPENDIX K--THE IMMEDIATE NEEDS OF AMERICA'S FIRE SERVICE



Introduction

September 11, 2001, is a date that will be long remembered for its horrors, its heroics, but also, for ushering in the new century's biggest threat to America: terrorism. In this new war, the long sacred distinction between civilians and legitimate targets is blurred and the frontlines are drawn in every American community. While the world has changed drastically, the American fire and emergency services remain a constant and will be the first to respond. Since the paradigm has shifted from "if there is a terrorist attack" to "when and where will the next attack occur," the fire service must be prepared to respond to terrorist attacks using conventional weapons and weapons of mass destruction.

Long before the terrorist attacks of September 11th, the national fire service organizations began working together to improve readiness and increase funding levels for programs related to terrorism response. The following items are the immediate needs of America's fire service to enable it to be prepared for future disasters. The federal government has not made America's fire service a priority. Fire service representatives should have a role in planning for future events.

Funding

The number one need in the American fire service is financial resources to provide staffing, purchase the needed equipment and access relevant training. The following programs are areas that would drastically improve our ability to respond to future incidents, and to adequately respond to all of the hazards we face every day.

Staffing

To address the personnel shortfall existing across the nation within career, combination and volunteer fire departments, Congress needs to undertake a staffing initiative.

The Assistance to Firefighters Grant Program

This program provides funding for the fundamental tools of fire fighting, including safety and fire fighting equipment, apparatus, training, prevention, and staffing. Congress should immediately fund this program at $600 million for FY 2002. Congress should also reauthorize this program for $5 billion over five years, beginning in FY 2003.

Domestic Terrorism Preparedness

A single point of contact should be designated at the Federal Emergency Management Agency (FEMA), per President Bush's public statement in May, 2001, to coordinate federal terrorism preparedness and response programs. The federal government should develop a single national strategy that will include measurable preparedness goals. We support the idea of the Office of Homeland Security, but we also believe response to future disasters should be coordinated by FEMA.

The domestic preparedness grant program, currently administered by the Department of Justice, provides training and equipment for terrorism response. DOJ should return to a two-tiered approach of providing support directly to the 157 largest population centers in addition to providing states with funding to assist smaller communities. Congress should increase funds for terrorism response programs specifically for use by the fire service and take steps to ensure that state-administered funds reach the intended local government agencies.

Fundamental terrorism response training, using skilled instructors who are both fire fighters and certified instructors, is of paramount importance. Training that is conducted within communities and incorporates the unique aspects of localities should be a priority.

Thermal Imaging Cameras

These cameras are integral tools for fire fighting and rescue work. Thermal imaging cameras can be used to find unconscious victims and disoriented fire fighters, to pinpoint hot spots and to detect structural dangers. These cameras, at a cost of $8,000 per device, are needed to adequately equip fire departments throughout the country.

Chemical Biological Masks

It is imperative that the National Institute for Occupational Safety and Health test and certify a mask for first responders to use in attacks from chemical and/or biological weapons. Masks are needed to protect first responders within a twenty-five mile radius of the major population centers. Each mask costs approximately $300.

Operation Respond Software

Operation Respond is a vital software tool that provides vital life saving information to emergency responders at hazardous materials transportation incidents and rail passenger accidents. At a minimum, each public safety dispatch center in the country should have the software. Furthermore, Congress should pass a five-year, $10 million authorization for Operation Respond and appropriate $2 million for FY 2002. Congress should also require rail and motor freight carriers to utilize this life-saving technology.

Hazardous Materials Training

Congress should immediately increase funding for existing and established Department of Transportation training programs dealing with hazardous materials transportation training and the Department of Energy hazardous materials training program for nuclear facilities. These programs use skilled instructors, who are both fire fighters and certified instructors, to train fire fighters to safely and effectively respond to hazmat incidents whether accidental or intentional. These programs should be funded at $1 million and $1.5 respectively in FY 2002 to begin fire fighter training on the proper techniques for hazmat response. New programs that are proposed should be evaluated by the United States Fire Administration and national fire service leaders.

Automated External Defibrillators

Automated External Defibrillators (AED's) are crucial to emergency medical response and to protecting fire fighters. Early defibrillation using an AED is one of the most important aspects of survival. For every minute without defibrillation the survival rate decreases 10%. 220,000 Americans die each year from sudden cardiac arrest. AED's are needed for every fire and emergency services department vehicle.

Administrative

United States Fire Administration

On September 20th, President Bush nominated Chief R. David Paulison as Administrator of the United States Fire Administration. We urge prompt confirmation of Chief Paulison, and feel very strongly that the Chief Operating Officer position should be retained. In addition, the Urban Search and Rescue Program, currently in the Response and Recovery Directorate of FEMA, should be moved under USFA's control.

Communications

There exists an urgent need by public safety agencies for additional spectrum dedicated for interoperable communications. In 2000, Congress addressed this issue by urging allocation of spectrum for interoperability purposes in the 138 - 144 MHz range (currently assigned to the US Department of Defense), which is adjacent to existing public safety bands. The Assistance to Firefighters Act (PL 106-398) requires the Department of Defense to issue an interim progress report by October 30, 2001. Congress should make sure this report is completed on time and work to ensure that the needed spectrum is shared with the fire and emergency service.

Congress should require the Federal Communications Commission (FCC) to issue a report on the performance of communications systems in New York City and Metro Washington, DC on September 11, 2001. The FCC should provide its findings by March 2002.

APPENDIX L--AMA REPORT AND RECOMMENDATIONS

AMA Report and Recommendations on Medical Preparedness for Terrorism and Other Disasters

Physicians and other health professionals will play a crucial role as caregivers and community leaders during a crisis precipitated by an act of terrorism. The AMA as a focal point for organized medicine, therefore, will play an important role in representing and informing the individual physicians who will be on the front lines.

The AMA and its Federation of state, county and specialty societies has a unique capability to convene necessary experts and stakeholders on this issue. When a national plan is developed for terrorism preparedness, the AMA is well-positioned to work with and through its Federation to inform physicians about this subject. When a plan is developed, the AMA can also extract and communicate those elements that are most relevant for physicians and deliver this message to them through its affiliated organizations and through various and practical means.

The Council on Scientific Affairs produces reports on scientific subjects of concern to its membership. The Council presented a report entitled "Medical Preparedness for Terrorism and Other Disasters" to the House of Delegates at the 2000 Interim Meeting for its House of Delegates.

Some of the recommendations made by the Council on Scientific Affairs that were adopted as AMA Directives:

- The AMA calls for the creation of a public-private entity (including federal, military, and public health content experts) that will collaborate with medical educators and medical specialty societies to: (a) develop audience-specific medical education curricula on disaster medicine and the medical response to terrorism, with a first charge to develop curricula on bioterrorism, and disseminate these to medical students, physicians in training, and physicians in practice; (b) develop information resources on disaster medicine and the medical response to terrorism for civilian physicians and other health care workers; (c) encourage and work with state and specialty societies, the Centers for Disease Control and Prevention, the pharmaceutical industry, and other appropriate federal, military and private organizations to develop model plans for community medical response to disasters, including terrorism; and (d) address the issue of reliable, timely, and adequate reporting of dangerous diseases by community physicians to public health authorities.

- The AMA encourages the Federation of Medicine to become involved in planning for the medical component of responses to disasters, including terrorism, at levels appropriate to the Federation component: (a) county/local medical societies and organized medical staffs are encouraged to become involved in local public health and community planning and physician education; (b) state societies are encouraged to become involved in state response planning and physician education; and (c) specialty societies are encouraged to take the lead in conducting and encouraging education of their members in essential

components of disaster medicine, as well as encouraging their members to participate in local response planning.

- The AMA encourages the JCAHO and state licensing authorities to include the evaluation of hospital plans for terrorism and other disasters as part of the periodic accreditation and licensure visits by their representatives.

With the Council of Scientific Affairs report and subsequent AMA House of Delegates action, we know this is a subject of importance to physicians. The AMA has in place tools and technologies for informing physicians and medical organizations about this topic. Therefore, the AMA must be an integral part of any national response plan.

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APPENDIX M--JCAHO STANDARD

JCAHO Revised Emergency Management Standard

EFFECTIVE January 1, 2001

Standard
EC.1.4 A plan addresses emergency management

Intent of EC.1.4
The emergency management plan describes how the organization will establish and maintain a program to ensure effective response to disasters[1] or emergencies affecting the environment of care. The plan should address four phases of emergency management activities; mitigation, preparedness, response, and recovery.[2]

The plan provides processes for:

a. identifying specific procedures in response to a variety of disasters based on a hazard vulnerability analysis[3] performed by the organization;
b. initiating the plan (including a description of how, when, and by whom the plan is activated);
c. defining, and when appropriate, integrating the organization's role with community-wide emergency response agencies (including the identification of who is in charge of what activities and when are they in charge) to promote inter-operability between the health care organization and the community;
d. notifying external authorities of emergencies;
e. notifying personnel when emergency response measures are initiated;
f. identifying personnel during emergencies;
g. assigning available personnel in emergencies to cover all necessary staff positions;
h. managing the following during emergencies and disasters:
    - patients activities including scheduling, modification, or discontinuation of services, control of patient information, and patient transportation
    - staff activities (e.g., housing, transportation, and incident stress debriefing),
    - staff family-support activities,
    - logistics of critical supplies (e.g., pharmaceuticals, medical supplies, food supplies, linen supplies, water supplies),
    - security (e.g., crowd control, traffic control), and
    - interaction with the news media.

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[1] **Disaster** A natural or man-made event that significantly disrupts the environment of care, such as damage to the organization's building(s) and grounds due to severe wind storms, tornadoes, hurricanes, or earthquakes. Also, an event that disrupts care and treatment, such as loss of utilities (power, water, telephones) due to floods, civil disturbances, accidents, or emergencies within the organization or in the surrounding community. Disasters are sometimes referred to as "potential injury creating events" (i.e., "PICE").

[2] **Mitigation** activities are those a healthcare organization undertakes in attempting to lessen the severity and impact a potential disaster or emergency may have on its operation while **preparedness** activities are those an organization undertakes to build capacity and identify resources that may be utilized should a disaster or emergency occur.

[3] **Hazard vulnerability analysis** is the identification of hazards and the direct and indirect effect these hazards may have on the health care organization

i. evacuating the entire facility (both horizontally and, when applicable, vertically) when the environment cannot support adequate patient care and treatment;
j. establishing an alternative care site(s) that have the capabilities to meet the clinical needs of patients when the environment cannot support adequate patient care including processes that address (when appropriate):
   • management of patient necessities (e.g., medications, medical records) to and from the alternative care site,
   • patient tracking to and from the alternative care site,
   • inter-facility communication between the organization and the alternative care site,
   • transportation of patients, staff and equipment to the alternative care site,
   • continuing and/or re-establishing operations following a disaster.

The plan identifies:

k. an alternative means of meeting essential building utility needs (e.g., electricity, water, ventilation, fuel sources, and medical gas/vacuum systems) when the organization is designated by its emergency preparedness plan to provide continuous service during a disaster or emergency;
l. backup internal and external communication systems in the event of failure during disasters and emergencies;
m. facilities for radioactive or chemical isolation and decontamination; and
n. alternate roles and responsibilities of personnel during emergencies, including who they report to within a command structure that is consistent with that used by the local community.

The plan establishes:

o. an orientation and education program for personnel who participate in implementing the emergency management plan. Education addresses:
   1. specific roles and responsibilities during emergencies,
   2. the information and skills required to perform duties during emergencies,
   3. the backup communication system used during disasters and emergencies, and
   4. how supplies and equipment are obtained during disasters or emergencies;
p. ongoing monitoring of performance regarding actual or potential risk related to one or more of the following:
   • staff knowledge and skills;
   • level of staff participation;
   • monitoring and inspection activities;
   • emergency and incident reporting; or
   • inspection, preventive maintenance, and testing of equipment; and
q. how an annual evaluation of the emergency preparedness safety management plan's objectives, scope,, performance, and effectiveness will occur.

APPENDIX N--STATEMENT ON VACCINE DEVELOPMENT

Statement on Vaccine Development
Council of the Institute of Medicine
November 5, 2001

The events following the tragedies of September 11, 2001, have reemphasized a serious defect in America's capacity to deal with biological agents used in terrorist attacks. The capacity to develop, produce, and store vaccines to deal with these agents are inadequate to meet the nation's needs. In 1993 the Institute of Medicine published THE CHILDREN'S VACCINE INITIATIVE: ACHIEVING THE VISION. In assessing the national and international situation, the committee said, "because the private sector alone cannot sustain the costs and risks associated with the development of most CVI vaccines, and because the successful development of vaccines requires an integrated process, the committee recommends that an entity, tentatively called the National Vaccine Authority (NVA), be organized to advance the development, production, and procurement of new and improved vaccines of limited commercial potential but of global public health need" [1].

In a 1992 report, EMERGING INFECTIONS: MICROBIAL THREATS TO HEALTH IN THE UNITED STATES, another IOM committee recommended the development of an integrated management structure within the federal government for acquiring vaccines, as well as a facility for developing and producing vaccines with government support [2].

Evidence for the inability of the private sector to meet the country's needs for vaccines has accumulated substantially since the 1993 report. Fewer private companies are manufacturing vaccines. Continually needed vaccines such as the tetanus and influenza vaccines are in increasingly short supply. The availability of influenza vaccines has been delayed over the past several years and in 2000, one company stopped production. Pneumococcal conjugate vaccine is unavailable in several states because of the sole source manufacturer's inability to meet demands. Only one source is currently available for meningococcal varicella and measles-mumps-rubella vaccines.

There are just four major vaccine manufacturers in the world today, and only two in the United States [3]. There were four times that number only 20 years ago. There are many small new research and development companies backed by venture capital and devoted to vaccine development. Many are working on anticancer vaccines for which market forces may be enough to keep them in production. However, good products developed by these startups to combat infectious diseases often do not come to market because of the very large costs of testing in pilot studies and in manufacturing. Currently, the United States has a single licensed anthrax vaccine product, manufactured by a single plant. Because the Food and Drug Administration (FDA) had identified problems in the manufacturing process during regular inspections, the plant was closed for renovations in 1998, and to date, no new lots of anthrax vaccine have yet been cleared for release.

Prior to the events of September 11, the delays and problems faced by both the Department of Health and Human Services and Department of Defense in developing and procuring a cell-culture smallpox vaccine provide convincing evidence that major changes are needed at the national level. With the government guaranteeing payment in this time of national need, several potential manufacturers have come forward. This is an ad hoc example of a larger national need for mechanisms to obtain other public-good vaccines on an ongoing basis, and not just under extenuating circumstances when there is a great deal of public awareness of the need for vaccines.

The Children's Vaccine Initiative committee listed the functions of a National Vaccine Authority as shown in Appendix 1. While these activities focused on the Children's Vaccine Initiative, they now have a broader importance to America, as the potential need for vaccines required to meet biological threats increases. The IOM Council believes the Authority should focus its attention upon vaccines that will not be adequately produced by existing public or private entities. Important functions of the Authority would include: conducting in-house vaccine-related research and development, assisting companies in the production of pilot lots of vaccines; and arranging and contributing to the procurement of National Vaccine Authority vaccines. An especially important function would be to provide opportunities for the production of pilot lots of vaccines developed by small biotechnology firms, and to produce vaccines when market forces are not sufficient to facilitate large-scale production.

The IOM Council further believes the Authority should facilitate communications among relevant contributors to vaccine research and development, including academic research efforts, manufacturers, regulatory agencies, and the public. The Authority should not interfere in any way with public or private research or development efforts to create new vaccines. It should be available to assist such efforts when opportunities arise. It should interact with other public and private entities to assure a timely and effective system for storage and distribution of appropriate vaccines. It should identify mechanisms to expand current forms of liability protection for the adverse effects of vaccines, including expansion of federal efforts for indemnification of manufacturers. The Authority could become a source of appropriate reliable information to the media health care personnel, policy-makers, and the public. The FDA could work closely with such an Authority to oversee vaccine development and production as well as facilitate their oversight processes and reduce regulatory complexities. In some cases, it might find mechanisms to guarantee a price for vaccines to stimulate private sector production, as has occurred with smallpox vaccine in the current situation.

Recently, proposals have been made for the creation of a government-owned, contractor-operated national vaccine facility. The IOM Council believes this is one in a spectrum of public-private ventures by which a NVA could facilitate development and production of needed vaccines. The conduct of research, development, production, and distribution of vaccines in such a facility should be the responsibility of a private contractor selected by a competitive bidding process. This effort should not preclude other collaborations with private contractors in other public-private projects. Funding for such a facility will initially require a substantial financial investment [4]. While a

major priority for this facility would be to develop vaccines necessary to protect American troops and for use against bioterrorism, the facility also should be charged with production of other vaccines that are in scarce supply and would not otherwise be provided in the public or private sectors. In some cases in which there are few private sector uses, the facility would become the principal source of such vaccines. In other cases, a variety of public and private partnerships could be undertaken to produce needed vaccines [5].

The Council of the Institute of Medicine of the National Academies believes that the development of a National Vaccine Authority is long overdue. It could be created within the Department of Health and Human Services, in collaboration with the Department of Defense or as a joint effort of the two departments. Moreover, the Council believes that establishment of a government-owned, contractor-operated facility for research, development, and production of vaccines is essential to meeting the country's public health needs, particularly those related to bioterrorism and protection of our armed forces. This facility also should play a role in development and production of other vaccines required for the public health that are not currently available in the open market. The Council encourages the president of the United States, the secretary of health and human services, secretary of defense, and the director of the Office of Homeland Security to evaluate these recommendations as critical elements for maintaining the country's health.

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3. Merck Vaccine Division (parent company is Merck Pharmaceuticals) and Wyeth-Lederle Vaccines (parent company is American Home Products Corporation) are U.S.-based companies. Aventis Pasteur and GlaxoSmithKline operate within the United States and have products licensed by the FDA for use in the United States, but they are companies based in other countries.

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APPENDIX 1: FUNCTION OF A NATIONAL VACCINE AUTHORITY

-- Define the need
-- Assess the market
-- Establish priorities for U.S. CVI vaccine development in conjunction with the global CVI
-- Characterize desired vaccine products
-- Assemble intellectual property rights
-- Advance CVI product development through the private sector
-- Conduct in-house vaccine-related research and development
-- Assist companies in the production of pilot lots of vaccine
-- Support clinical testing and field trials of candidate vaccines
-- Transfer CVI-related vaccine technology to developing country manufacturers
-- Train U.S. and overseas nationals in the principles of vaccine development, pilot manufacture, and quality control
-- Arrange and contribute to the procurement of NVA vaccines
-- Evaluate and redefine needs
-- Represent the United States in international CVI forums, such as the Consultative Group

NOTE: Mitchell, V.S., Philipose, N.M., and Sanford, J.P., eds. The Children's Vaccine Initiative: Achieving the Vision. Washington, D.C.: National Academy Press, 1993, p. 133.

In addition to these functions, the need for vaccines to fulfill anti-terrorist and military requirements should be included.

APPENDIX O--CANTIGNY CONFERENCE ON STATE HEALTH POWERS & BIOTERRORISM

Cantigny Conference

on

State Emergency Health Powers & the Bioterrorism Threat

April 26-27, 2001

Sponsored by:

The Centers for Disease Control and Prevention

American Bar Association Standing Committee on Law and National Security

The National Strategy Forum

Underwritten by:

Alfred P. Sloan Foundation

Reporters:

James J. Misrahi
Centers for Disease Control and Prevention

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National Strategy Forum

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Executive Summary

On April 26-27, 2001, the Centers for Disease Control and Prevention, American Bar Association Standing Committee on Law and National Security, and the National Strategy Forum cosponsored a conference on "State Emergency Public Health Powers & the Bioterrorism Threat." Underwritten by the Alfred P. Sloan Foundation, the conference was held at the Cantigny Conference Center on Colonel Robert R. McCormick's former estate in suburban Chicago. The conference discussed the role of state emergency public health powers in responding to bioterrorism—the use by terrorists of biological agents that have the potential to cause fatal or incapacitating diseases in a population.

The conference uniquely brought together six different groups that have not traditionally shared the same forum: public health attorneys, public health officers, non-profit organizations, national security attorneys, the national defense community, and academia. The conference focused on identifying what public health powers would be needed in a bioterrorism event; assessing the status of current emergency health powers, determining the gaps in such powers; and developing a framework for future action. The purpose of the conference was not to advocate the implementation of an overall federal solution, but rather, to discuss a grass-roots approach for improving emergency public health powers. The views expressed at the conference are those of the participants and not necessarily of the organizations with which they are affiliated. Conference participants reached the following broad conclusions:

- Many legal and regulatory authorities for responding to an emergency already exist. States must reexamine their health and emergency laws, particularly older laws that were passed 50-80 years ago.
- States may not be adequately prepared for responding to a event of bioterrorism. Public health officers may be unaware of legal authorities, lack access to expert legal advice, or may not be in communication with concerned organizations.
- States must identify gaps in authority and develop procedures for informed, rapid decisionmaking in a crisis. These procedures must be tested in exercises that include state public health officers, legal advisors,

and emergency responders—including officials from neighboring jurisdictions.

- If a bioterrorism event occurs, an effective, well-rehearsed response will ensure public safety, and diminish the likelihood of panic that a terrorist may hope to cause.

In addition, conference participants recognized the need for further work in the following areas:

I. Legal Reform. Development of clear laws and understanding of law as a form of public health infrastructure.

- Analysis of existing legal authorities in order to improve the public health response to an emergency.
- Development of a model law with national experts.
- Coordination with academia to improve the public health infrastructure.
- Providing legal advice to the public health community and assisting public health officers to network with other professional organizations.
- Research into issues of immunity and indemnification at the federal and state level.

II. Legal Preparedness. Determining practices and procedures for areas where legal authorities are clear through the use of checklists, model laws, and draft executive orders.

- Drafting of executive orders to be used by political leaders in the event of bioterrorism.
- Improvement of public health regulations.
- Discussion with political leaders concerning indemnification of public health workers.
- Development of procedures to allow medical personnel to work across different jurisdictions.
- Analysis of gaps in current public health authorities among different jurisdictions.
- Inclusion of local government attorneys in discussions of bioterrorism.
- Development of a bioterrorism plan that references legal authorities and includes different interest groups.

III. Education and Training. Analyzing and correcting deficiencies revealed by exercises. Inclusion of lawyers in exercises and establishment of training standards.

- Organization of regional and state conferences on the bioterrorism threat.
- Clearer understanding of bioterrorism from an epidemiological perspective.
- Education on post-traumatic stress.
- Development of training exercises and evaluation of the results.
- Standardization of training exercises.
- Development of a program for civilian biodefense.

IV. Operations and Planning. Clear understanding of how emergency plans will be implemented, as well as roles and responsibilities of different key actors. Minimizing political and legal delays.

- Encouragement of state officials to study federal emergency powers.
- Interagency cooperation in developing a clear support role for the Department of Defense.
- Dissemination of information concerning resources of the Department of Defense.
- Clear communication between health officials and the public during a crisis.
- Discussion of the formation of an on-call emergency response team of experts with rotating membership.
- Development of programs and operations by a national network of public health experts.

V. Partnerships. Outreach to other professional communities such as law enforcement, emergency responders, and the media.

- Outreach to National Association of Governors.
- Discussion of public health response at the International Chiefs of Police Conference on Bioterrorism.
- Outreach to emergency response groups, e.g., police, fire, National Guard.
- Outreach to state governor's legal staff.
- Elevation of the status of public health in the national security community.
- Network and organization of public health departments and lawyers.
- Development of a multi-disciplinary approach to respond to bioterrorism.
- Discussion of the bioterrorism threat at the American Bar Association Annual Convention.
- Outreach to political leaders at the state and local level.

Session One: In a Bioterrorism Event, What Public Health Powers are Needed?

Moderator: Elizabeth Rindskopf Parker, American Bar Association Standing Committee on Law and National Security

Overview: Gene Matthews, Centers for Disease Control and Prevention.

- This is a unique gathering of six different groups who have not traditionally collaborated: public health law attorneys, public health officers, non-profit organizations, national security attorneys, national defense community, and academia.
- This discussion is not intended to lead to a "big bang" federal approach, but rather to discuss a grass-roots approach for reviewing and improving emergency public health powers at the state and local level.
- Our goal is to develop the outline of an action plan to assist state and local health officers to review the legal powers needed in a bioterrorism emergency.

Federal Needs for State/Local Preparedness, Scott Lillibridge, Centers for Disease Control and Prevention.

- The term weapons of mass destruction has many different definitions; we will discuss agents that have the potential to create an epidemic among large populations without the use of additional weapons or perpetrators.
- The federal government is working to improve public health preparedness at the macro-level: efforts to increase early detection in state laboratories; funds to increase surveillance, training, and planning; establishment of a health alert network to facilitate communication.
- Issues for the federal government include: 1) manage information in an emergency, e.g., access to medical or other records that may be privileged, inter-agency sharing of records and information; 2) control of property, e.g., temporary closure of facilities, procurement of medicines and vaccines, rationing of medicines; and 3) control of persons, e.g., mandatory health examinations, implementation of quarantine, restrictions on public gatherings to prevent the spread of disease.

State & Local Health Perspective on Bioterrorism Role, Rex Archer, Kansas City Department of Health.

- There is a need for increased training and resources for state and local public health departments. Public health officers should have a higher profile within the political infrastructure and the public. Laws are meaningless without the practical ability to carry them out.
- Greater efforts are required in the areas of record collection and data sharing. States need to have clear procedures for reporting of diseases, collecting data on workplace absenteeism, and obtaining information from pharmacies. There is also a need to streamline licensing requirements for medical professionals across state lines. In addition, the practices of managed care organizations may impact negatively on disease surveillance; for example, by discouraging doctors from ordering confirmatory tests.
- Local health officers are authorized to control the use of property in a public health emergency. For example, public health officers may need to commandeer hotel rooms, which may be useful during an event because these rooms generally operate on separate ventilation systems. In addition, public health officers may have to commandeer drive-through facilities, such as those found at fast food restaurants, that could be used to dispense medicines in an emergency. While public health authorities are relatively strong, there is little practical experience in using compulsory measures, as they have not been needed for more than 50 years. Increased authority may be needed.

- Greater efforts are required with respect to management of persons. For example, few health facilities have the surge capacity to deal with a large number of casualties. In addition, the chain of command during a public health emergency must be clarified.

Discussion points and comments.

- **Long history of using the power of government to control infectious disease.** The history of using the power of government to control infectious diseases dates back to the Middle Ages. In the modern era, as the risk of infectious diseases began to decline (circa 1950), courts began to develop greater protections for individuals.
- **Greater need for education of the public and health professionals.** When people think of public health they tend to think more of Mother Teresa than Elliot Ness. But in an emergency, public health officers may need to give orders. Even many medical care practitioners don't realize how public health and medicine fit into national security.
- **Need to obtain the public's trust.** Compulsory public health measures require public trust. The public does not realize that more people are killed by infectious diseases than by accidents, or that the risk of a pandemic is greater than that of nuclear war.
- **Need for polling and working with human relations experts.** Polling and focus group evaluations should be conducted to find out whom the public will trust most in a crisis; for example, federal or state officials, military or civilian leaders, public health officers or law enforcement. Public health officers may use the results of such polling to better communicate with the public in times of crises. In addition, cultural and linguistic diversity must be taken into account as some communities may have greater mistrust of government.
- **Legislative foresight and strengthening of legal infrastructure.** There are two conflicting dangers that arise from an insufficient legal infrastructure: 1) overreaction, when, for example, the pubic becomes inflamed and pressures political leaders; and 2) underreaction, when public health officers fail to act because they believe that they lack sufficient legal authority or political support. Avoiding these dangers requires a prior legislative scheme. In an emergency, a sound legal basis for action will be particularly important.
- **Enforcement authority needs to be clarified.** This requires partnering with local law enforcement. In New York City, for example, every public health officer is also a "peace officer" and is accompanied by a police officer when enforcing a detention order for a tuberculosis patient.
- **Experience with partnerships and collaborations.** Public health officers operate mainly through partnerships and collaborations and have little experience in using coercive public health measures. Exercising such authority may require, for example, that public health officers carry badges identifying themselves. In addition, whether using coercive measures negatively impacts a public health officer's ability to work cooperatively with the public or private industry needs to be discussed.
- **Experience with coercive public health powers.** Most public health interventions will be voluntary; however, statutory mechanisms need to be in place for dealing with uncooperative people. Public health officers have some experience in issuing quarantine orders for tuberculosis patients, nuisance abatement, and in closing hotels, restaurants, and schools for public health reasons. While these authorities may be exercised during a bioterrorism event, the magnitude and implementation will be completely different. In addition, different biological agents may necessitate different containment strategies.
- **Certification of other doctors to perform duties of medical examiners.** In many communities, a medical examiner may be the only person authorized to investigate and determine the cause of a suspicious death. In an emergency, other doctors may have to be certified to perform this function.
- **Political issue.** Response to a public health emergency, such as bioterrorism or a pandemic epidemic, will be widespread and quickly elevated to elected officials including the state governor. This is not strictly a public health issue, but also a political issue. Clear, open, and lawful response by government officials is necessary for public support and preservation of our national values. Rapid determination of the

appropriate balance between coercive government action and individual civil rights is critical.

Session Two: What is the Status of Current Emergency Health Powers?

Moderator: Suzanne Spaulding, American Bar Association

Legal Overview, Larry Gostin, Georgetown University Law Center.

- States are the reservoirs of police powers. The federal government has broad authority under the Commerce Clause, but it may not generally commandeer the levers of state government. While there are a few exceptions, notably New York City, legal authorities to exercise emergency health powers are rarely local. Tribal governments are also sovereign entities and therefore must be involved in the process. Overlapping jurisdictions in a metropolitan area could cause confusion. Different levels of government must clarify which agency has the lead responsibility and authority.
- State laws dealing with public health arose through a piecemeal process and therefore are antiquated and overly specific. The present model focuses on detection (disease reporting, partner notification), identification (outbreak investigations, laboratory control), intervention (school-based vaccinations, directly observed therapy, quarantine), and deterrence (criminal statutes, civil confinement).
- Balanced against statutory authorities are constitutional constraints such as the due process requirements of notice and a fair hearing. There are also substantive laws which limit other statutory authorities, e.g., duty not to discriminate. During the last mass quarantine courts were highly suspicious and critical. A good example is Jew Ho v. Williamson, 103 F. 10, 24 (C.C.N.D. Cal. 1900), where a federal court ruled a quarantine imposed only in predominately Asian-American communities to be unconstitutional. Laws protecting individual rights appear to have superceded those preserving the "common good."

A "Traditional" State Law, John Chapin, Steven Marshall, and Dan Stier, Wisconsin Department of Health and Family Services.

- Wisconsin has had a public health statute since the founding of the State in 1848. Initially, public health was entirely local with authority vested in the local boards of health. Eventually, a state board of health was created with authority to enact statewide regulations for quarantine. In 1905, tuberculosis was specifically named as a disease of public health importance with a specific set of mechanisms to control the disease. While the statute was recodified in 1993, it remained a "traditional" public health statute.
- The key judicial opinions are very old and narrow. A 1909 opinion, for example, states that in order to control disease public health powers bordering on "despotism" are necessary.
- The current statute only addresses "communicable" diseases. There are no specific provisions dealing with bioterrorism or hoaxes. Furthermore, while there are regulations for dispensing drugs to tuberculosis patients, the statute does not address the issue of who may dispense drugs in the event of a mass-casualty event.

A "Newer" State Law, Dr. Richard Hoffman, Colorado Department of Health and Environment.

- Colorado passed a law in March 2000 that specifically addresses bioterrorism, pandemic influenza, and novel infections. The legislature enacted the law without controversy because the public health department was *not* seeking any additional authorities and required no funding. Rather, the law was designed to remove legal impediments to different groups working together.
- Under the plan, the Colorado Department of Health and Environment may require that hospitals, managed care organizations, and local health departments plan for a bioterrorism emergency. In exchange for filing an approved plan, these entities receive legal immunity. The definition of a "volunteer civil defense worker" was also changed to include a health care worker, thereby expanding eligibility for death benefits. Furthermore, additional regulations have been written authorizing the establishment of a command center, a communications network, and the purchasing of protective equipment for first responders. In addition, a committee was formed to prioritize the dispensing of vaccines among high-risk groups.
- Draft executive orders have been written authorizing the rationing of pharmaceuticals, suspension of licensing requirements for doctors and nurses, and confiscation of cellphones and other communication

- devices for use by emergency responders. The State compensates the owners for these takings.

Discussion points and comments.

- **Gilmore Commission.** This commission focuses on partnerships between and among health professionals, emergency responders, and legal experts. New York City is considered a model for informed partnerships demonstrated through training and exercises. The Gilmore Commission, among other things, has recommended the drafting of a model law.
- **Intergovernmental Committee.** An intergovernmental committee should include a range of both public and private professionals such as emergency room doctors and specialists in post-traumatic stress syndrome. Colorado's intergovernmental committee includes the state attorney general and proved useful during the "Topoff" exercise.
- **Legal resources.** Not all public health departments will have the same access to legal resources. Notwithstanding, pre-prepared executive orders may be useful.
- **Revising public health laws.** There is a risk that revising public health statutes will lead the legislature to weaken, not strengthen, them as may occur with any law where different interest groups may conflict. Many issues, however, that can be addressed through legislation may also be addressed through executive order. While broad authorities may be desirable, practical exercises need to be performed to know how these authorities will work in a crisis situation and to identify any gaps.
- **Investigative authorities not clear.** Public health departments are unclear about using the resources of the private sector. Rules protecting patient confidentiality may impede public health surveillance. There is also a distinction between surveillance and research, the latter being governed by regulations for the protection of human subjects.
- **Federal/State coordination.** Many state public health officers are unaware of federal quarantine laws and other federal authorities. The surgeon general is also authorized to impose a quarantine in time of war.

Keynote Address: Dr. John Hamre, Center for Strategic and International Studies

- In the absence of an overarching struggle, the present era has witnessed the resurgence of old animosities. Today, there is either a war or a civil war in every time zone. These wars are particularly vicious, e.g., mutilation of children in Sierra Leone and narco-traffickers controlling large parts of Colombia. While none of these battles represent a direct threat to the United States, they undermine the concept of a stable international order. The era has also seen the emergence of international terrorists and other trans-national actors who have access to financial, technological, and military resources, e.g., Osama-Bin Laden, drug gangs in the former Soviet Union.

- In the past, terrorism was isolated, episodic, and incoherent; now the opposite is true, terrorism is coherent, organized, and skilled. The present era must deal with the residue of the past era, particularly the Cold War inventory of chemical and biological weapons. In addition, in producing these weapons, a knowledge base of how to build these weapons was also created. Today, there is a dangerous mix around the world of privation and knowledge.

- While we cannot eliminate the knowledge base relating to biological weapons, we can create economic diversions, for example, by getting scientists involved in positive research. As a nation, we should be more interested in eliminating the production capacity and stocks of biological weapons.

- Many consider biological weapons to be more dangerous than nuclear weapons because they can be used anonymously and it is more difficult to track the perpetrator.

- In the event of a terrorist attack, the government must respond effectively, or the public will become frightened and overreact, e.g., internment of Japanese-Americans after Pearl Harbor.

- Suggestions for how the United States can control the threat include: 1) stigmatizing ownership and use of biological weapons; 2) eliminating biological inventory of the Cold War; 3) pushing European allies on the issue of non-proliferation; 4) retooling intelligence system by thinking more along the lines of networking, e.g., attending international science conferences, rather than relying on satellite photographs; and 5) reconsidering the structure of deterrence, e.g., threatening nuclear retaliation in response to a biological or chemical attack is not credible.

- Policymakers need to inform the public about the danger of biological weapons. In general, there is great public skepticism that government can handle this issue responsibly.

Session Three: What are the Gaps?

Moderator: Marci Layton, New York City Department of Health

Legal Gaps, David Fidler, University of Indiana School of Law.

- Debate has focused on two positions: legal gaps and legal obstacles. The first position states that there are legal gaps in the substantive law, i.e., that existing health laws are outdated and need modernization to provide a solid legal foundation for responding to bioterrorism. The objective of this position is legal reform.. The second position states that existing authorities are broad enough to encompass bioterrorism and that rather than reform existing authorities, we need to remove obstacles that interfere with our objectives. The objective of this position is legal preparedness. Both positions are valid.

- Colorado has examined its existing laws and developed strategies to remove obstacles to collaborations and increase input into the political framework. Every state should evaluate and make appropriate changes like Colorado. States should move ahead with legal reform or legal preparedness.

- There is a consensus that legal obstacles exist to the effective use of state emergency health powers, e.g., the federal government has problems getting information from state and local governments; federal privacy laws may unduly interfere with state action; and, state licensing requirements may interfere with emergency assistance offered by doctors and nurses from other jurisdictions.

Procedural Challenges to Taking Effective Action, Thomas Inglesby, Johns Hopkins Center for Civilian Biodefense Studies.

- Our objectives in the event of a bioterrorism incident are to minimize death and end the epidemic. In order to achieve these objectives, public health capacities are needed: detect an epidemic, confirm cases of disease, track cases in real time, coordinate and advise hospitals, administer public health interventions, communicate among health officers and the public, and manage scarce resources.

- Assuming that we have all of the necessary public health powers, there are still procedural challenges with which we must deal: 1) decision-making processes—deciding who will be the decision-maker, and making certain that elected officials have access to the experts; 2) public persuasion—offering the public explanations of the risk that are comprehensible and persuading them that the government is acting in their best interests; and 3) implementation—dealing with large casualties with which public health officers are not accustomed.

- We must proceed on parallel tracks, addressing both legal authorities and procedural challenges. This may require a change in the health care system which currently treats the individual patient with the highest regard and is less concerned with the public good.

Expertise and Skills Needed to Successfully Implement, Diana Bontá, California Department of Health Services.

- Public health departments don't usually operate on a 24-hour basis. It will be difficult to sustain the level of expertise needed to respond to an emergency. In addition, there needs to be better coordination between public health and emergency medical services. It is not unusual for public health officers to work with members of hazmat teams.

- There needs to be a media strategy for public information and rumor control. Public health departments should consider establishing 1-800 numbers.

- There needs to be better coordination between law enforcement and public health officers. In particular, a plan needs to be in place for dealing with hoaxes and suspected releases of biological agents.

Discussion points and comments.

- **Legal immunity and indemnification.** The corollary of responsibility is liability; officials should not be afraid to exercise their authorities. Public health officers who develop plans to combat bioterrorism and proceed in good faith with those plans could be immunized or indemnified. While it may be possible to remove liability from planning, liability should not be inadvertently imposed if a plan is not followed through precisely—which often happens in an emergency. Policymakers should be wary about inadvertently creating a standard of care. In addition, qualified immunity only protects persons and not entities. The risk in granting immunity to those who develop plans is that those who do not develop plans and do not have immunity may be powerless in an emergency. States should also consider whether to provide immunity to volunteers who are "deputized" by public health officers to render medical assistance in an emergency.

- **Balanced response.** While it is important to remove obstacles to responding to a bioterrorism event, governmental structures that are designed to protect the individual, e.g., privacy laws, human subjects protections, should not be dismantled.

- **Exercises.** Exercises are a valuable tool for determining weaknesses in planning. The Topoff exercise helped Colorado in analyzing issues and framing a response. Joint Task Force—Civil Support (DOD) can be a valuable planning resource in helping states develop such exercises. Private consulting companies are also available to assist government agencies in training. More work needs to be done in developing standards for these exercises.

- **Legal obstacles**.. In an emergency, public health officers may need to respond rapidly in order to contain an epidemic and save lives. Laws such as the Administrative Procedure Act (APA) or state "open meetings laws" may delay an emergency public health response. Many of these laws, for example, require that the board of health provide notice and an opportunity for a public meeting before acting. Many manufacturers, in developing vaccines, also require informed consent and duty to warn as part of their contracts.

- **Broader planning.** A bioterrorism event is not likely to be limited to one jurisdiction. Rather, a bioterrorism event will spread and should be considered a national security threat. Linking public health officers with emergency preparedness people is a good start; however, planning needs to take neighboring states and the Federal government into account.

- **Federal response.** In a bioterrorism event, the federal government will mobilize resources and tools to manage the event at a macro-level. Implementation at the local level, however, remains a key life-saving component. The federal government's response to an event should prevent different jurisdictions from competing for scarce resources. The National Pharmaceutical Stockpile Program, for example, should find ways to further break down the quantity of pharmaceuticals sent to a particular jurisdiction to conserve resources that might be needed elsewhere

Session Four: What are the Next Steps?

Moderator: Kathy Cahill, Centers for Disease Control and Prevention

Summary framework for improving and expanding public health response.

- **Legal Reform.** Need for clear laws and understanding of law as a form of public health infrastructure.

- **Legal Preparedness.** Process of determining practices and procedures for areas where legal authorities are clear through the use of checklists, model laws, and draft executive orders. Issues of liability and availability of legal resources among different health departments need to be resolved.

- **Education and Training.** Exercises are helpful, but they haven't yet focused on the legal lessons learned. It is important that deficiencies revealed by exercises are analyzed and corrected. It is critical that lawyers be included in these forms of training. There needs to be some mechanism for establishing standards for these exercises.

- **Operations and Planning.** It is critical that the key actors understand their roles and responsibilities. There must be a clear understanding of how emergency plans will be implemented. Political and legal delay must be kept to a minimum.

- **Partnerships.** Now is the time for public health practitioners to begin building bridges to other professional communities such as law enforcement, emergency responders, and the media. Public health officers need to understand the public's perception of disease outbreaks, and determine the best way to communicate with the public.

Future action items.

- Model laws.
- Exercises.
- Checklists.
- Training within the legal community.
- Outreach to ethics community.
- Communication and partnerships.
- Early warning systems.

Initiatives of Cantigny Working Group

- **Rex Archer**, Kansas City Department of Health. Will raise awareness of the bioterrorism threat and devote efforts to making the local public health officer a trusted member of the community. Will begin process of drafting executive orders for political leaders.

- **Odyssias Athanasiou**, City of Portsmouth Health Department. Will discuss bioterrorism threat with attorneys.

- **Galen Beaufort**, Kansas City Law Department. Will begin analyzing existing legal authorities in order to improve the public health response to an emergency.

- **Diana Bontá**, Department of Health Services. Will raise Cantigny meeting with National Association of Governors. Specifically, will address the possibility of creating an on-call emergency response team of experts with rotating membership.

- **M.E. Spike Bowman**, Federal Bureau of Investigation. Will encourage state officials to study federal emergency powers.

- **Daniel Callahan**, Office of the Attorney General of Illinois. Will discuss public health response at the International Chiefs of Police Conference on Bioterrorism.

- **Julieann Casani**, Maryland Department of Health & Mental Hygiene. Will focus on improving regulations, rather than drafting legislation.

- **John Chapin**, Wisconsin Department of Health & Family Services. Will begin reaching out to other emergency response groups, e.g., police, national guard, hazmat, and fire. Will discuss gender issues because in Wisconsin the majority of local health officers are women.

- **Joni Charme**, Department of Defense Joint Task Force Civil Support. Sole purpose of division is to provide assistance to the states. Will begin paving a legal role for clear DOD support. Will appeal for further inter-agency support.

- **David Fidler**, Indiana University School of Law. Will provide legal advice and assist in networking. Also will developing a law school course called "Weapons of Mass Destruction and the Rule of Law."

- **Richard E. Friedman**, National Strategy Forum. Need to gauge public reaction to the use of emergency powers for advance planning purposes; will organize regional and state conferences and draft state compacts.

- **Richard Goodman**, Centers for Disease Control and Prevention. Will work for a clearer understanding of the bioterrorism threat from an epidemiological perspective.

- **Lawrence Gostin**, Georgetown University Law Center. Will work with a group of national experts to help draft a model law. Will work with academia to improve the public health infrastructure.

- **Richard Hoffman**, Colorado Department of Health & Environment. Will pursue indemnification and offer sample draft executive orders. Will educate staff on issues of post-traumatic stress. Will conduct a training exercise using pandemic influenza as a model. Discussed the need for a web site.

- **Cynthia Honssigner**, Colorado State Health Department. Will look into federal laws and research issues of immunity and indemnification. Will outreach with state governor's legal staff and National Association of Governors.

- **Tom Inglesby**, Johns Hopkins Center for Civilian Biodefense Studies. Will work to elevate status of public health among national security community and in state programs.

- **Martha Katz**, Centers for Disease Control and Prevention. Will follow-up with issues of communications and federal quarantine.

- **Barry Kellman**, DePaul University College of Law. Will begin building partnerships with outside organizations.

- **Marci Layton**, New York City Department of Health. Will begin to address inter-jurisdictional issues and work on executive orders and checklists.

- **Wilfredo Lopez**, New York City Department of Health. Will work more closely with legal staff and analyze Colorado regulations.

- **Steven Marshall**, Wisconsin Division of Public Health. Will work to develop a bioterrorism plan that references legal authorities and includes different interest groups, e.g., local health, managed care, hospitals, pharmacies, media, federal officials. Will work to develop a training exercise and evaluate the results.

- **Gene Matthews**, Centers for Disease Control and Prevention. Will continue to network and organize public health departments and lawyers.

- **Kathy McDill**, Department of Defense Joint Task Force Civil Support. Will disseminate information concerning resources of the Department of Defense.

- **Clement McGovern**, Department of Justice. Will encourage states to reach out to U.S. Attorneys' Offices and the Federal Bureau of Investigation. Local officials, for example, should coordinate with federal officials to ensure that the victims of an event are not repeatedly interviewed by different law enforcement officers.

- **Dan O'Brien**, Maryland Department of Health & Mental Hygiene. Will begin outreach to National Association of State Attorneys General.

- **Terry O'Brien**, Will work on a multi-disciplinary approach towards the threat of bioterrorism.

- **Paula Olsiewski**, Alfred P. Sloan Foundation. Will begin developing a program for civilian biodefense.

- **Elizabeth Rindskopf Parker**, University of Wisconsin System. Will discuss Cantigny conference at American Bar Association Annual Convention.

- **Robert Sullivan,** City of Portsmouth, NH. Will work through professional organizations with municipal lawyers on the state and national level regarding a new national organization or association to increase awareness of the bioterrorism threat and the potential responses to that threat discussed at the conference.

- **Dan Stier**, Wisconsin Department of Health and Family Services. Will tap into a national network of public health experts to develop programs and operations.

- **Kathleen Toomey,** Georgia Department of Human Resource. Noted that public health has moved away from servicing a community to a position of regulation. Will work towards increasing the legitimacy of public health programs in the eyes of the public and facilitate the ability of public health officers to access needed tools and resources.

- **Michael Wermuth**, RAND. Will advocate the standardization of training exercises and the promulgation of a model law.

- **Keith Yamanaka**, California Department of Health Services. Will begin outreach to political leaders.

APPENDIX P–MEDIA AND HEALTH COMMUNICATION—THE OHIO MENINGITIS INCIDENT[127]

Background

In late May 2001, two Ohio students died of meningitis. On the first of June, a student at a neighboring school who had attended the funeral of one of the other students also became ill with meningitis. Four local health departments, the Ohio state health department, and the Centers for Disease Control and Prevention (CDC) became involved and recommended that approximately 3,000 students at three involved high schools begin taking prophylactic antibiotics. This recommendation was consistent with national guidelines that had been in place for years and that had historically produced excellent results.

The Confusion Begins

On Sunday June 3, a physician at a local hospital recommended that "inclusion criteria for . . . antibiotic prophylaxis . . . include any person having close, personal, and intimate contact with students . . . (from any of the three schools)." Thus persons who are called "contacts of contacts" were being told to take antibiotics. The national guidelines do *not* recommend that contacts of contacts take antibiotics, because they are not considered to be at risk for developing meningococcal disease. The recommendation by the local physician was inconsistent with the national guidelines and with what was recommended by Federal, State, and local health officials.

Compounding the Problem

On June 4, headlines in the Akron, Ohio *Beacon Journal* stated: "Thousands wait in the rain for antibiotics." In that article, citizens reported hearing rumors that the National Guard was being called out to quarantine the area, that people were fearful about leaving their homes, and that parents were afraid to let their children eat school lunches.

By June 6, the *Beacon Journal* headlines read, "37,000 line up for drugs to prevent meningitis." The paper reported people saying that they had decided to take antibiotics since their relatives had attended one of the schools, that school officials were canceling the rest of the school year at several schools, that graduation at another school and many sport events had also been canceled, and that people were afraid to take their children to the grocery store. An AP story reported that people were refusing even to touch writing pens provided when obtaining antibiotics, that children were not allowed to touch anything when they went shopping at the local Wal-Mart, that a student stated that "everybody's panicking," and that "the disease has spread confusion and fear."

On June 7, the *New York Times* reported that one of the mayors was studying "downtown lunchrooms for signs of returning life" and had stated that, "on an emotional and psychological level," the event was not over. The same day, the *Beacon Journal* wrote, "On the heels of three local cases of meningococcal disease comes the true epidemic—one of fear and panic." The

[127] Observations from panel member M. Patricia Quinlisk, M.D., Medical Director/State Epidemiologist, Department of Public Health, State of Iowa

Beacon Journal also reported false rumors about an epidemic of West Nile Virus, about the hundreds of calls to the local health department, and that residents of the community were still concerned about being exposed to meningitis. A local infectious disease doctor is reported to have said that the panic was being fueled by the fact that there appears to be no central system of spreading information to the public.

Observations

Various health and medical authorities presented inconsistent information and recommendations. The rational and historical underpinnings of the national standard and recommendations about treatment were not clearly explained in the media. This fueled the community's concerns and confusion about this rare and potentially fatal disease, contributing to the panic.

Incident response plans should include procedures for rapid implementation of effective communication strategies. When an incident occurs, a variety of communication tools may, if used effectively, help to alleviate public concern and fear. These include rumor control and health information hotlines; regular media briefings and other methods for providing updates to the media; mass e-mail messages; posting information on Internet sites, as well as providing hard-copy information (fact sheets, brochures, flyers) to affected communities; group discussions with selected populations; and partnering with community leaders for additional assistance with information distribution. Some of these were used in Ohio during this incident.

To minimize the potential for fear and panic, public health and medical officials at all levels must plan in advance for similar incidents, especially for biological ones. Officials must agree that only a few pre-selected health and medical professionals at each level will speak for their public health and medical community, to ensure that the public, including the media, are given accurate, consistent, and timely information. When an incident occurs, officials of the affected communities at each level should coordinate the release of public information.

APPENDIX Q—HOMELAND SECURITY PRESIDENTIAL DIRECTIVE-2

the White House
President George W. Bush

For Immediate Release
Office of the Press Secretary
October 30, 2001

Homeland Security Presidential Directive-2

October 29, 2001

SUBJECT: Combating Terrorism Through Immigration Policies

A. National Policy

The United States has a long and valued tradition of welcoming immigrants and visitors. But the attacks of September 11, 2001, showed that some come to the United States to commit terrorist acts, to raise funds for illegal terrorist activities, or to provide other support for terrorist operations, here and abroad. It is the policy of the United States to work aggressively to prevent aliens who engage in or support terrorist activity from entering the United States and to detain, prosecute, or deport any such aliens who are within the United States.

1. Foreign Terrorist Tracking Task Force

By November 1, 2001, the Attorney General shall create the Foreign Terrorist Tracking Task Force (Task Force), with assistance from the Secretary of State, the Director of Central Intelligence and other officers of the government, as appropriate. The Task Force shall ensure that, to the maximum extent permitted by law, Federal agencies coordinate programs to accomplish the following: 1) deny entry into the United States of aliens associated with, suspected of being engaged in, or supporting terrorist activity; and 2) locate, detain, prosecute, or deport any such aliens already present in the United States.

The Attorney General shall appoint a senior official as the full-time Director of the Task Force. The Director shall report to the Deputy Attorney General, serve as a Senior Advisor to the Assistant to the President for Homeland Security, and maintain direct liaison with the Commissioner of the Immigration and Naturalization Service (INS) on issues related to immigration and the foreign terrorist presence in the United States. The Director shall also consult with the Assistant Secretary of State for Consular Affairs on issues related to visa matters.

The Task Force shall be staffed by expert personnel from the Department of State, the INS, the Federal Bureau of Investigation, the Secret Service, the Customs Service, the Intelligence Community, military support components, and other Federal agencies as appropriate to accomplish the Task Force's mission.

The Attorney General and the Director of Central Intelligence shall ensure, to the maximum extent permitted by law, that the Task Force has access to all available information necessary to perform its mission, and they shall request information from State and local governments, where appropriate.

With the concurrence of the Attorney General and the Director of Central Intelligence, foreign liaison officers from cooperating countries shall be invited to serve as liaisons to the Task Force, where appropriate, to expedite investigation and data sharing.

Other Federal entities, such as the Migrant Smuggling and Trafficking in Persons Coordination Center and the Foreign Leads Development Activity, shall provide the Task Force with any relevant information they possess concerning aliens suspected of engaging in or supporting terrorist activity.

2. Enhanced INS and Customs Enforcement Capability

The Attorney General and the Secretary of the Treasury, assisted by the Director of Central Intelligence, shall immediately develop and implement multi-year plans to enhance the investigative and intelligence analysis capabilities of the INS and the Customs Service. The goal of this enhancement is to increase significantly efforts to identify, locate, detain, prosecute or deport aliens associated with, suspected of being engaged in, or supporting terrorist activity within the United States.

The new multi-year plans should significantly increase the number of Customs and INS special agents assigned to Joint Terrorism Task Forces, as deemed appropriate by the Attorney General and the Secretary of the Treasury. These officers shall constitute new positions over and above the existing on-duty special agent forces of the two agencies.

3. Abuse of International Student Status

The United States benefits greatly from international students who study in our country. The United States Government shall continue to foster and support international students.

The Government shall implement measures to end the abuse of student visas and prohibit certain international students from receiving education and training in sensitive areas, including areas of study with direct application to the development and use of weapons of mass destruction. The Government shall also prohibit the education and training of foreign nationals who would use such training to harm the United States or its Allies.

The Secretary of State and the Attorney General, working in conjunction with the Secretary of Education, the Director of the Office of Science and Technology Policy, the Secretary of Defense, the Secretary of Energy, and any other departments or entities they deem necessary, shall develop a program to accomplish this goal. The program shall identify sensitive courses of study, and shall include measures whereby the Department of State, the Department of Justice, and United States academic institutions, working together, can identify problematic applicants for student visas and deny their applications. The program shall provide for tracking the status of a foreign student who receives a visa (to include the proposed major course of study, the status of the individual as a full-time student, the classes in which the student enrolls, and the source of the funds supporting the student's education).

The program shall develop guidelines that may include control mechanisms, such as limited duration student immigration status, and may implement strict criteria for renewing such student immigration status. The program shall include guidelines for exempting students from countries or groups of countries from this set of requirements.

In developing this new program of control, the Secretary of State, the Attorney General, and the Secretary of Education shall consult with the academic community and other interested parties. This new program shall be presented through the Homeland Security Council to the President within 60 days.

The INS, in consultation with the Department of Education, shall conduct periodic reviews of all institutions certified to receive nonimmigrant students and exchange visitor program students. These reviews shall include checks for compliance with record keeping and reporting requirements. Failure of institutions to comply may result in the termination of the institution's approval to receive such students.

4. North American Complementary Immigration Policies

The Secretary of State, in coordination with the Secretary of the Treasury and the Attorney General, shall promptly initiate negotiations with Canada and Mexico to assure maximum possible compatibility of immigration, customs, and visa policies. The goal of the negotiations shall be to provide all involved countries the highest possible level of assurance that only individuals seeking entry for legitimate purposes enter any of the countries, while at the same time minimizing border restrictions that hinder legitimate trans-border commerce.

As part of this effort, the Secretaries of State and the Treasury and the Attorney General shall seek to substantially increase sharing of immigration and customs information. They shall also seek to establish a shared immigration and customs control database with both countries. The Secretary of State, the Secretary of the Treasury, and the Attorney General shall explore existing mechanisms to accomplish this goal and, to the maximum extent possible, develop new methods to achieve optimal effectiveness and relative transparency. To the extent statutory provisions prevent such information sharing, the Attorney General and the Secretaries of State and the Treasury shall submit to the Director of the Office of Management and Budget proposed remedial legislation.

5. Use of Advanced Technologies for Data Sharing and Enforcement Efforts

The Director of the OSTP, in conjunction with the Attorney General and the Director of Central Intelligence, shall make recommendations about the use of advanced technology to help enforce United States immigration laws, to implement United States immigration programs, to facilitate the rapid identification of aliens who are suspected of engaging in or supporting terrorist activity, to deny them access to the United States, and to recommend ways in which existing government databases can be best utilized to maximize the ability of the government to detect, identify, locate, and apprehend potential terrorists in the United States. Databases from all appropriate Federal agencies, state and local govern-ments, and commercial databases should be included in this review. The utility of advanced data mining software should also be addressed. To the extent that there may be legal barriers to such data sharing, the Director of the OSTP shall submit to the Director of the Office of Management and Budget proposed legislative remedies. The study also should make recommendations, propose timelines, and project budgetary requirements.

The Director of the OSTP shall make these recommendations to the President through the Homeland Security Council within 60 days.

6. Budgetary Support

The Office of Management and Budget shall work closely with the Attorney General, the Secretaries of State and of the Treasury, the Assistant to the President for Homeland Security, and all other appropriate agencies to review the budgetary support and identify changes in legislation necessary for the implementation of this directive and recommend appropriate support for a multi-year program to provide the United States a robust capability to prevent aliens who engage in or support terrorist activity from entering or remaining in the United States or the smuggling of implements of terrorism into the United States. The Director of the Office of Management and Budget shall make an interim report through the Homeland Security Council to the President on the recommended program within 30 days, and shall make a final report through the Homeland Security Council to the President on the recommended program within 60 days.

GEORGE W. BUSH

APPENDIX R—MARITIME DOMAIN AWARENESS

MEMORANDUM OF AGREEMENT AMONG THE DEPARTMENT OF DEFENSE, THE UNITED STATES COAST GUARD, THE IMMIGRATION AND NATURALIZATION SERVICE, AND THE BUREAU OF CONSULAR AFFAIRS, DEPARTMENT OF STATE

SUBJECT: MARITIME DOMAIN AWARENESS

PURPOSE: As agreed to among the DEPARTMENT OF DEFENSE, the UNITED STATES COAST GUARD, the IMMIGRATION and NATURALIZATION SERVICE, and the Bureau of Consular Affairs, DEPARTMENT OF STATE, this Memorandum of Agreement (MOA) establishes a framework and foundation for multi-agency cooperative efforts aimed at improving U.S. Maritime security.

BACKGROUND: Complexity and ambiguity are hallmarks of today's national security environment. Transnational asymmetric threats employed by nations, small groups, or networks of individuals using legitimate activities, including commerce, are now likely sources of physical or economic harm to U.S. citizens.

Confronting this new class of threats is not a simple task – increased security at geographic borders often conflicts with our economic interests. The ultimate goal is a solution that improves the flow of legitimate commerce while enhancing security. In simple terms, the goal is to promote the good, such as facilitating the unimpeded movement of legitimate people and cargo, while stopping the bad, such as preventing weapons of mass destruction from entering the country. Achieving this goal requires a significant improvement in the management and analysis of information on possible threats and, more pointedly, improved inter-agency cooperative efforts.

Domain awareness is the effective knowledge of activities and elements that threaten the safety, security, or environment of the United States or its citizens. Today, the United States has much better information about what occurs at its aerospace and land-based borders than it does at its maritime borders. At present, U.S. Maritime Domain Awareness capabilities are limited. However, ongoing activities, agency operations, and existing databases already contain some of the resources and information needed to develop a much-improved maritime awareness capability. For example, the U.S. Customs Service has an information system that mines various databases, including cargo movement, in order to investigate trade crimes. The Coast Guard collects information from a variety of sources, including port arrival notices, aircraft surveillance, at-sea boardings, marine safety inspections, state registrations, and commercial sources to enforce laws and safety regulations. Naval and Coast Guard Intelligence have significant capabilities in vessel tracking. The Immigration and Naturalization Service and the Bureau of Consular Affairs, Department of State have significant information on the movement

of people across U.S. borders. **However, no single framework exists to effectively look at threats across the broad spectrum of issues. What is necessary is the establishment of an organizational structure with the connectivity to create a virtual national data repository with the supporting analytical and communications capabilities to develop effective maritime awareness and coordinate appropriate responses.**

STATEMENT OF OBJECTIVE: The undersigned agencies agree that an integral element of Homeland Security is the protection of the U.S. maritime borders and the Marine Transportation System from a variety of threats ranging from terrorists introducing a weapon of mass destruction, to port closures due to maritime accidents, to environmental threats. The agencies further agree that the concept of Maritime Domain Awareness is an important step in the process and that this can only be achieved by extensive inter-agency cooperation. This cooperation will manifest itself in a maritime fusion center that draws on the expertise and data mining capabilities of the various agencies. The Coast Guard Intelligence Coordination Center, which is collocated at the National Maritime Intelligence Center in Suitland MD, provides the framework for additional agency participation and will provide the necessary synergy for data sharing and cooperative analysis of maritime threats to Homeland Security. This center will also facilitate rapid dissemination to appropriate law enforcement agencies once a threat is detected.

ACTION: The agencies agree to establish and participate in an interagency sub-working group under the auspices of the Defense Policy Interagency Working Group. This sub-working group will be known as the National Maritime Security Coordinating Committee, and will be comprised of members from the agencies at the Deputy Assistant Secretary level. Additional agencies will be included in the Council as necessary. Nothing in this MOA commits any agency to share particular databases, or to make long term resource commitments.

Within two weeks of signing this MOA, the Committee will meet for the purpose of:

- Selecting co-chairs of the committee.

- Developing a concept paper on Maritime Domain Awareness that includes a roadmap for implementation. The concept paper, due within 30 days of the first meeting of the Committee, will lay out goals and a notional timeline for implementation, and will address organizational structure, operational response and management, IT/ADP/IRM issues, and program support and funding.

The Committee will oversee the development of the Maritime Domain Awareness initiatives and will advise the Defense Policy Interagency Working Group on the broad range of U. S. Maritime Security issues. The Committee may create subordinate working groups as necessary.

EFFECTIVE DATE/MODIFICATION/TERMINATION: The terms of this Agreement will become effective on the date the last party signs the Agreement. This Agreement may be modified only upon the mutual written consent of all the parties. The terms of this Agreement, as modified with the consent of all parties, will remain in effect until all of the parties agree to terminate said Agreement. Any party upon (60) days written notice to the other parties may terminate its participation in the Agreement. In that event, the Agreement will continue in force for the other parties.

____/Signed/ ___ 12 JAN 2001

MR. J. WILLIAM LEONARD date

DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR SECURITY AND INFORMATION OPERATIONS

____/Signed/ _ 12 JAN 2001

ADMIRAL JAMES M. LOY date

COMMANDANT, U. S. COAST GUARD

____/Signed/ _ 12 JAN 2001

MR. GEORGE C. LANNON date

DEPUTY ASSISTANT SECRETARY FOR VISA SERVICES, BUREAU OF CONSULAR AFFAIRS, DEPARTMENT OF STATE

____/Signed/ ___ 12 JAN 2001

MS. MARY ANN WYRSCH

ACTING COMMISSIONER, IMMIGRATION AND NATURALIZATION SERVICE

17 November 2000

MARITIME DOMAIN AWARENESS

Background: Complexity and ambiguity are hallmarks of today's national security environment. Major theatre war is no longer the most credible threat to U.S. national security. Transnational asymmetric threats employed by nations, small groups, or networks of individuals using legitimate activities, including commerce, are now the most likely source of physical or economic harm to U.S. citizens.

Confronting this new class of threats is not a simple task because securing U.S. borders conflicts with economic interests, which require fast and efficient cross-border transportation systems. The solution requires a balance between security interests and economic interests. In simple terms, the goal is to promote the good, such as facilitating the unimpeded movement of legal people and cargo, while stopping the bad, such as by preventing accidents and intercepting the illegal. Achieving this goal requires us to significantly improve the collection and analysis of information on possible threats.

Domain awareness is the effective knowledge of all activities and elements that threaten the safety, security, or environment of the United States or its citizens. Today, the United States has much better information about what occurs at its aerospace and land-based borders than it does at its maritime borders (though perhaps not enough). Asymmetric transnational threats have a relatively open gateway to U.S. via the marine transportation system.

U.S. Maritime Domain Awareness capabilities are very limited, but ongoing collection activities and existing databases already contain some of the information needed to develop a much improved maritime awareness capability. For example, the Customs Service has an information system that documents the import of cargo so they can enforce Customs laws. And, the Coast Guard collects information from a variety of sources, including port arrival notices, aircraft surveillance, at-sea boardings, marine safety inspections, state registrations, and commercial sources to enforce laws and safety regulations. **However, what is needed is an entity with the necessary network connectivity to create a virtual national data repository and the supporting analytical and communications capabilities to develop effective maritime awareness and coordinate appropriate responses.**

Coast Guard capabilities, attributes, and authorities, when combined make it a strong candidate for managing a National Maritime Awareness Center. The Coast Guard is a maritime military service and a law enforcement agency. Coast Guard forces effectively and efficiently engage a broad spectrum of transnational asymmetric threats daily, and the Coast Guard is a trusted inter-agency partner. Moreover, the Coast Guard already operates interoperable intelligence centers, operations centers, and inter-agency communications networks, all of which are linked to Coast Guard stations, cutters, and aircraft.

Current Capabilities: The Coast Guard Intelligence Coordination Center (ICC), co-located with the Naval Intelligence Center in Suitland, MD, provides the foundation for the National Maritime Intelligence Center (NMIC). The ICC is a relatively small, fewer than 50 people, organization that is the Coast Guard's link to national intelligence capabilities and serves as the

Coast Guard's strategic intelligence information repository and analysis center. In addition to links to national intelligence organizations, ICC has direct access to Coast Guard Marine Safety and Law Enforcement databases and the Joint Maritime Information Element (JMIE) program.

While not designed specifically for this effort, the Joint Maritime Information Element (JMIE) is a database of maritime information that could serve as a key element of an expanded maritime awareness data repository. The JMIE database is capable of being significantly expanded through the addition of data sources.

The ICC is fully employed by its current responsibilities. However, it possesses the basic infrastructure to provide effective maritime awareness with only marginal expansion. For example, with the addition of only six Coast Guard reserve personnel, ICC has supported the Pacific Northwest Special Interest Vessel (SIV) initiative. This is a 5-position x 16-hour watch effort that supports the SIV program in tracking people and vessels that may be engaged in collecting intelligence while in U.S. waters.

Finally, the National Response Center (NRC), which is co-located with the Coast Guard Command Center, already has the capability to accommodate inter-agency Presidential Directive (PD) processes and communicate actionable information to appropriate agencies.

What Is Needed: The ideal National Maritime Awareness Center would have the 7-position X 24-hour capability to rapidly mine and fuse relevant information from various government and private sector data bases. A supporting risk-management analysis team is needed to transform raw data into actionable information. Additionally, a more robust data storage, mining and decision support capability is required to access and evaluate the necessary information in a timely manner. **Most important is the requirement for seamless information sharing and selfless cooperation among federal agencies and private industry. Absent this, awareness will necessarily be limited.**

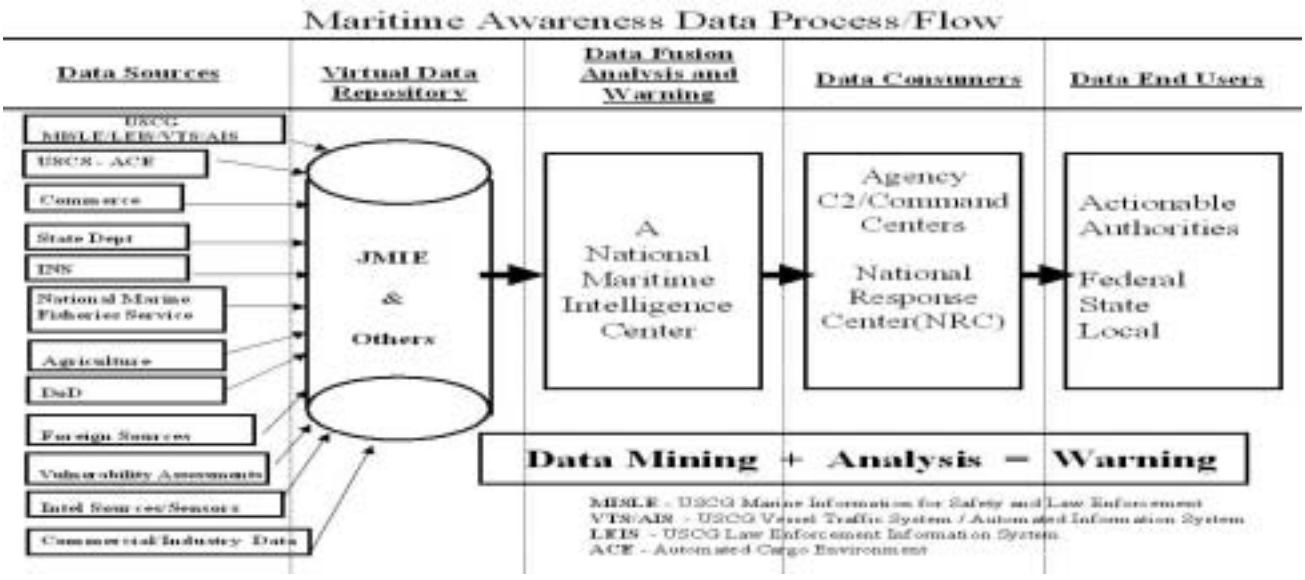

Figure 1: Proposed Data Flow

Figure 1 above, graphically depicts this process, including key information sources. Ideally, the system would provide total visibility of vessel registry, marine safety and law enforcement history, crew, cargo, planned ports of call, and position for every vessel entering or transiting the U.S. Exclusive Economic Zone.

Potential Maritime Domain Awareness threat scenario:

Data mining and decision support tools alert the ICC watch stander at NMIC suggesting a potential threat exists aboard a vessel scheduled to dock in Long Beach, CA within 24 hours. This information is evaluated by the ICC watch stander and also passed to Intel analysts for further study.
After reviewing the available data and coordinating with other intelligence sources, the ICC disseminates a specific warning order to activate detection and monitoring sensors.
Sensors are queued to locate and track the vessel (national assets to CG aircraft).
NSC chairs PD process to determine appropriate course of action.
The NRC acknowledges the receipt of the data transfer from the NMIC as a potential event and makes appropriate notifications to effect an intercept. The notifications would typically include:

- Coast Guard (as likely intercept force)

FBI
USCS

- DOD (Soldier's Biological and Chemical Command for technical support)
- Department Of State
- HHS (Center for Disease Control and the Agency for Toxic Disease Symptom Registry)
- ICC (The ICC also receives notification of threat events from the NRC in its current role as the National Chemical/Biological Hotline.)
    - Director of Military Support – includes representation by all military services
    - National Response Team
        - Applicable state and local agencies

Appropriate forces dispatched to intercept the vessel at sea in order to prevent the threat from entering the coastal or port zones.

Resource Requirements:

The ultimate system would require significant investment in additional people, infrastructure, and information technology. That cost estimate is under development.

An interim, yet, much improved system that would simply link existing interagency databases and provide limited watch stander and analysis capability could be achieved for much less. A first-cut rough estimate is that a limited capability could be achieved with 25 - 35 people plus an information technology investment of $15M - $20M.

Summary: Transnational asymmetric threats now pose the most credible national security threat to the American people. Maritime borders are the most vulnerable. Recent events have demonstrated the vulnerability of our ports and waterways. Maritime Domain Awareness is the key to improved maritime border security. The U.S. can significantly improve its Maritime Domain Awareness at a relatively modest cost by leveraging existing databases, information technology, and Coast Guard capabilities.

APPENDIX S—EXECUTIVE ORDER ON CRITICAL INFRASTRUCTURE PROTECTION

the White House
President George W. Bush

For Immediate Release
Office of the Press Secretary
October 16, 2001

Executive Order on Critical Infrastructure Protection

Executive Order
Critical Infrastructure Protection in the Information Age

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to ensure protection of information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems, in the information age, it is hereby ordered as follows:

Section 1. Policy.

(a) The information technology revolution has changed the way business is transacted, government operates, and national defense is conducted. Those three functions now depend on an interdependent network of critical information infrastructures. The protection program authorized by this order shall consist of continuous efforts to secure information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems. Protection of these systems is essential to the telecommunications, energy, financial services, manufacturing, water, transportation, health care, and emergency services sectors.

(b) It is the policy of the United States to protect against disruption of the operation of information systems for critical infrastructure and thereby help to protect the people, economy, essential human and government services, and national security of the United States, and to ensure that any disruptions that occur are infrequent, of minimal duration, and manageable, and cause the least damage possible. The implementation of this policy shall include a voluntary public-private partnership, involving corporate and nongovernmental organizations.

Sec. 2. Scope. To achieve this policy, there shall be a senior executive branch board to coordinate and have cognizance of Federal efforts and programs that relate to protection of information systems and involve:

(a) cooperation with and protection of private sector critical infrastructure, State and local governments' critical infrastructure, and supporting programs in corporate and academic organizations;

(b) protection of Federal departments' and agencies' critical infrastructure; and

(c) related national security programs.

Sec. 3. Establishment. I hereby establish the "President's Critical Infrastructure Protection Board" (the "Board").

Sec. 4. Continuing Authorities. This order does not alter the existing authorities or roles of United States Government departments and agencies. Authorities set forth in 44 U.S.C. Chapter 35, and other applicable law, provide senior officials with responsibility for the security of Federal Government information systems.

(a) Executive Branch Information Systems Security. The Director of the Office of Management and Budget (OMB) has the responsibility to develop and oversee the implementation of government-wide policies, principles, standards, and guidelines for the security of information systems that support the executive branch departments and agencies, except those noted in section 4(b) of this order. The Director of OMB shall advise the President and the appropriate department or agency head when there is a critical deficiency in the security practices within the purview of this section in an executive branch department or agency. The Board shall assist and support the Director of OMB in this function and shall be reasonably cognizant of programs related to security of department and agency information systems.

(b) National Security Information Systems. The Secretary of Defense and the Director of Central Intelligence (DCI) shall have responsibility to oversee, develop, and ensure implementation of policies, principles, standards, and guidelines for the security of information systems that support the operations under their respective control. In consultation with the Assistant to the President for National Security Affairs and the affected departments and agencies, the Secretary of Defense and the DCI shall develop policies, principles, standards, and guidelines for the security of national security information systems that support the operations of other executive branch departments and agencies with national security information.

(i) Policies, principles, standards, and guidelines developed under this subsection may require more stringent protection than those developed in accordance with subsection 4(a) of this order.

(ii) The Assistant to the President for National Security Affairs shall advise the President and the appropriate department or agency head when there is a critical deficiency in the security practices of a department or agency within the purview of this section. The Board, or one of its standing or ad hoc committees, shall be reasonably cognizant of programs to provide security and continuity to national security information systems.

(c) Additional Responsibilities: The Heads of Executive Branch Departments and Agencies. The heads of executive branch departments and agencies are responsible and accountable for providing and maintaining adequate levels of security for information systems, including emergency preparedness communications systems, for programs under their control. Heads of such departments and agencies shall ensure the development and, within available appropriations, funding of programs that adequately address these mission areas. Cost-effective security shall be built into and made an integral part of government information systems, especially those critical systems that support the national security and other essential government programs. Additionally, security should enable, and not unnecessarily impede, department and agency business operations.

Sec. 5. Board Responsibilities. Consistent with the responsibilities noted in section 4 of this order, the Board shall recommend policies and coordinate programs for protecting information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems. Among its activities to implement these responsibilities, the Board shall:

(a) Outreach to the Private Sector and State and Local Governments. In consultation with affected executive branch departments and agencies, coordinate outreach to and consultation with the private sector, including corporations that own, operate, develop, and equip information, telecommunications, transportation, energy, water, health care, and financial services, on protection of information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems; and coordinate outreach to State and local governments, as well as communities and representatives from academia and other relevant elements of society.

(i) When requested to do so, assist in the development of voluntary standards and best practices in a manner consistent with 15 U.S.C. Chapter 7;

(ii) Consult with potentially affected communities, including the legal, auditing, financial, and insurance communities, to the extent permitted by law, to determine areas of mutual concern; and

(iii) Coordinate the activities of senior liaison officers appointed by the Attorney General, the Secretaries of Energy, Commerce, Transportation, the Treasury, and Health and Human Services, and the Director of the Federal Emergency Management Agency for outreach on critical infrastructure protection issues with private sector organizations within the areas of concern to these departments and agencies. In these and other related functions, the Board shall work in coordination with the Critical Infrastructure Assurance Office (CIAO) and the National Institute of Standards and Technology of the Department of Commerce, the National Infrastructure Protection Center (NIPC), and the National Communications System (NCS).

(b) Information Sharing. Work with industry, State and local governments, and nongovernmental organizations to ensure that systems are created and well managed to share threat warning, analysis, and recovery information among government network operation centers, information sharing and analysis centers established on a voluntary basis by industry, and other related operations centers. In this and other related functions, the Board shall work in coordination with the NCS, the Federal Computer Incident Response Center, the NIPC, and other departments and agencies, as appropriate.

(c) Incident Coordination and Crisis Response. Coordinate programs and policies for responding to information systems security incidents that threaten information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems. In this function, the Department of Justice, through the NIPC and the Manager of the NCS and other departments and agencies, as appropriate, shall work in coordination with the Board.

(d) Recruitment, Retention, and Training Executive Branch Security Professionals. In consultation with executive branch departments and agencies, coordinate programs to ensure that government employees with responsibilities for protecting information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems, are adequately trained and evaluated. In this function, the Office of Personnel Management shall work in coordination with the Board, as appropriate.

(e) Research and Development. Coordinate with the Director of the Office of Science and Technology Policy (OSTP) on a program of Federal Government research and development for protection of information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems, and ensure coordination of government activities in this field with corporations, universities, Federally funded research centers, and national laboratories. In this function, the Board shall work in coordination with the National Science Foundation, the Defense Advanced Research Projects Agency, and with other departments and agencies, as appropriate.

(f) Law Enforcement Coordination with National Security Components. Promote programs against cyber crime and assist Federal law enforcement agencies in gaining necessary cooperation from executive branch departments and agencies. Support Federal law enforcement agencies' investigation of illegal activities involving information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems, and support coordination by these agencies with other departments and agencies with responsibilities to defend the Nation's security. In this function, the Board shall work in coordination with the Department of Justice, through the NIPC, and the Department of the Treasury, through the Secret Service, and with other departments and agencies, as appropriate.

(g) International Information Infrastructure Protection. Support the Department of State's coordination of United States Government programs for international cooperation covering international information infrastructure protection issues.

(h) Legislation. In accordance with OMB circular A-19, advise departments and agencies, the Director of OMB, and the Assistant to the President for Legislative Affairs on legislation relating to protection of information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems.

(i) Coordination with Office of Homeland Security. Carry out those functions relating to protection of and recovery from attacks against information systems for critical infrastructure, including emergency preparedness communications, that were assigned to the Office of Homeland Security by Executive Order 13228 of October 8, 2001. The Assistant to the President for Homeland Security, in coordination with the Assistant to the President for National Security Affairs, shall be responsible for defining the responsibilities of the Board in coordinating efforts to protect physical assets that support information systems.

Sec. 6. Membership. (a) Members of the Board shall be drawn from the executive branch departments, agencies, and offices listed below; in addition, concerned Federal departments and agencies may participate in the activities of appropriate committees of the Board. The Board shall be led by a Chair and Vice Chair, designated by the President. Its other members shall be the following senior officials or their designees:

(i) Secretary of State;

(ii) Secretary of the Treasury;

(iii) Secretary of Defense;

(iv) Attorney General;

(v) Secretary of Commerce;

(vi) Secretary of Health and Human Services;

(vii) Secretary of Transportation;

(viii) Secretary of Energy;

(ix) Director of Central Intelligence;

(x) Chairman of the Joint Chiefs of Staff;

(xi) Director of the Federal Emergency Management Agency;

(xii) Administrator of General Services;

(xiii) Director of the Office of Management and Budget;

(xiv) Director of the Office of Science and Technology Policy;

(xv) Chief of Staff to the Vice President;

(xvi) Director of the National Economic Council;

(xvii) Assistant to the President for National Security Affairs;

(xviii) Assistant to the President for Homeland Security;

(xix) Chief of Staff to the President; and

(xx) Such other executive branch officials as the President may designate.

Members of the Board and their designees shall be full-time or permanent part-time officers or employees of the Federal Government.

(b) In addition, the following officials shall serve as members of the Board and shall form the Board's Coordination Committee:

(i) Director, Critical Infrastructure Assurance Office, Department of Commerce;

(ii) Manager, National Communications System;

(iii) Vice Chair, Chief Information Officers' (CIO) Council;

(iv) Information Assurance Director, National Security Agency;

(v) Deputy Director of Central Intelligence for Community Management; and

(vi) Director, National Infrastructure Protection Center, Federal Bureau of Investigation, Department of Justice.

(c) The Chairman of the Federal Communications Commission may appoint a representative to the Board.

Sec. 7. Chair. (a) The Chair also shall be the Special Advisor to the President for Cyberspace Security. Executive branch departments and agencies shall make all reasonable efforts to keep the Chair fully informed in a timely manner, and to the greatest extent permitted by law, of all programs and issues within the purview of the Board. The Chair, in consultation with the Board, shall call and preside at meetings of the Board and set the agenda for the Board. The Chair, in consultation with the Board, may propose policies and programs to appropriate officials to ensure the protection of the Nation's information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems. To ensure full coordination between the responsibilities of the National Security Council (NSC) and the Office of Homeland Security, the Chair shall report to both the Assistant to the President for National Security Affairs and to the Assistant to the President for Homeland Security. The Chair shall coordinate with the Assistant to the President for Economic Policy on issues relating to private sector systems and economic effects and with the Director of OMB on issues relating to budgets and the security of computer networks addressed in subsection 4(a) of this order.

(b) The Chair shall be assisted by an appropriately sized staff within the White House Office. In addition, heads of executive branch departments and agencies are authorized, to the extent permitted by law, to detail or assign personnel of such departments and agencies to the Board's staff upon request of the Chair, subject to the approval of the Chief of Staff to the President. Members of the Board's staff with responsibilities relating to national security information systems, communications, and information warfare may, with respect to those responsibilities, also work at the direction of the Assistant to the President for National Security Affairs.

Sec. 8. Standing Committees. (a) The Board may establish standing and ad hoc committees as appropriate. Representation on standing committees shall not be limited to those departments and agencies on the Board, but may include representatives of other concerned executive branch departments and agencies.

(b) Chairs of standing and ad hoc committees shall report fully and regularly on the activities of the committees to the Board, which shall ensure that the committees are well coordinated with each other.

(c) There are established the following standing committees:

(i) Private Sector and State and Local Government Outreach, chaired by the designee of the Secretary of Commerce, to work in coordination with the designee of the Chairman of the National Economic Council.

(ii) Executive Branch Information Systems Security, chaired by the designee of the Director of OMB. The committee shall assist OMB in fulfilling its responsibilities under 44 U.S.C. Chapter 35 and other applicable law.

(iii) National Security Systems. The National Security Telecommunications and Information Systems Security Committee, as established by and consistent with NSD-42 and chaired by the Department of Defense, shall serve as a Board standing committee, and be redesignated the Committee on National Security Systems.

(iv) Incident Response Coordination, co-chaired by the designees of the Attorney General and the Secretary of Defense.

(v) Research and Development, chaired by a designee of the Director of OSTP.

(vi) National Security and Emergency Preparedness Communications. The NCS Committee of Principals is renamed the Board's Committee for National Security and Emergency Preparedness Communications. The reporting functions established above for standing committees are in addition to the functions set forth in Executive Order 12472 of April 3, 1984, and do not alter any function or role set forth therein.

(vii) Physical Security, co-chaired by the designees of the Secretary of Defense and the Attorney General, to coordinate programs to ensure the physical security of information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems. The standing committee shall coordinate its work with the Office of Homeland Security and shall work closely with the Physical Security Working Group of the Records Access and Information Security Policy Coordinating Committee to ensure coordination of efforts.

(viii) Infrastructure Interdependencies, co-chaired by the designees of the Secretaries of Transportation and Energy, to coordinate programs to assess the unique risks, threats, and vulnerabilities associated with the interdependency of information systems for critical infrastructures, including the development of effective models, simulations, and other analytic tools and cost-effective technologies in this area.

(ix) International Affairs, chaired by a designee of the Secretary of State, to support Department of State coordination of United States Government programs for international cooperation covering international information infrastructure issues.

(x) Financial and Banking Information Infrastructure, chaired by a designee of the Secretary of the Treasury and including representatives of the banking and financial institution regulatory agencies.

(xi) Other Committees. Such other standing committees as may be established by the Board.

(d) Subcommittees. The chair of each standing committee may form necessary subcommittees with organizational representation as determined by the Chair.

(e) Streamlining. The Board shall develop procedures that specify the manner in which it or a subordinate committee will perform the responsibilities previously assigned to the Policy Coordinating Committee. The Board, in coordination with the Director of OSTP, shall review the functions of the Joint Telecommunications Resources Board, established under Executive Order 12472, and make recommendations about its future role.

Sec. 9. Planning and Budget. (a) The Board, on a periodic basis, shall propose a National Plan or plans for subjects within its purview. The Board, in coordination with the Office of Homeland Security, also shall make recommendations to OMB on those portions of executive branch department and agency budgets that fall within the Board's purview, after review of relevant program requirements and resources.

(b) The Office of Administration within the Executive Office of the President shall provide the Board with such personnel, funding, and administrative support, to the extent permitted by law and subject to the availability of appropriations, as directed by the Chief of Staff to carry out the provisions of this order. Only those funds that are available for the Office of Homeland Security, established by Executive Order 13228, shall be available for such purposes. To the extent permitted by law and as appropriate, agencies represented on the Board also may provide administrative support for the Board. The National Security Agency shall ensure that the Board's information and communications systems are appropriately secured.

(c) The Board may annually request the National Science Foundation, Department of Energy, Department of Transportation, Environmental Protection Agency, Department of Commerce, Department of Defense, and the Intelligence Community, as that term is defined in Executive Order 12333 of December 4, 1981, to include in their budget requests to OMB funding for demonstration projects and research to support the Board's activities.

Sec. 10. Presidential Advisory Panels. The Chair shall work closely with panels of senior experts from outside of the government that advise the President, in particular: the President's National Security Telecommunications Advisory Committee (NSTAC) created by Executive Order 12382 of September 13, 1982, as amended, and the National Infrastructure Advisory Council (NIAC or Council) created by this Executive Order. The Chair and Vice Chair of these two panels also may meet with the Board, as appropriate and to the extent permitted by law, to provide a private sector perspective.

(a) NSTAC. The NSTAC provides the President advice on the security and continuity of communications systems essential for national security and emergency preparedness.

(b) NIAC. There is hereby established the National Infrastructure Advisory Council, which shall provide the President advice on the security of information systems for critical infrastructure supporting other sectors of the economy: banking and finance, transportation, energy, manufacturing, and emergency government services. The NIAC shall be composed of not more than 30 members appointed by the President. The members of the NIAC shall be selected from the private sector, academia, and State and local government. Members of the NIAC shall have expertise relevant to the functions of the NIAC and generally shall be selected from industry Chief Executive Officers (and equivalently ranked leaders in other organizations) with responsibilities for the security of information infrastructure supporting the critical sectors of the economy, including banking and finance, transportation, energy, communications, and emergency government services. Members shall not be full-time officials or employees of the executive branch of the Federal Government.

(i) The President shall designate a Chair and Vice Chair from among the members of the NIAC.

(ii) The Chair of the Board established by this order will serve as the Executive Director of the NIAC.

(c) NIAC Functions. The NIAC will meet periodically to:

(i) enhance the partnership of the public and private sectors in protecting information systems for critical infrastructures and provide reports on this issue to the President, as appropriate;

(ii) propose and develop ways to encourage private industry to perform periodic risk assessments of critical information and telecommunications systems;

(iii) monitor the development of private sector Information Sharing and Analysis Centers (ISACs) and provide recommendations to the Board on how these organizations can best foster improved cooperation among the ISACs, the NIPC, and other Federal Government entities;

(iv) report to the President through the Board, which shall ensure appropriate coordination with the Assistant to the President for Economic Policy under the terms of this order; and

(v) advise lead agencies with critical infrastructure responsibilities, sector coordinators, the NIPC, the ISACs, and the Board.

(d) Administration of the NIAC.

(i) The NIAC may hold hearings, conduct inquiries, and establish subcommittees, as appropriate.

(ii) Upon the request of the Chair, and to the extent permitted by law, the heads of the executive branch departments and agencies shall provide the Council with information and advice relating to its functions.

(iii) Senior Federal Government officials may participate in the meetings of the NIAC, as appropriate.

(iv) Members shall serve without compensation for their work on the Council. However, members may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law for persons serving intermittently in Federal Government service (5 U.S.C. 5701-5707).

(v) To the extent permitted by law, and subject to the availability of appropriations, the Department of Commerce, through the CIAO, shall provide the NIAC with administrative services, staff, and other support services and such funds as may be necessary for the performance of the NIAC's functions.

(e) General Provisions.

(i) Insofar as the Federal Advisory Committee Act, as amended (5 U.S.C. App.), may apply to the NIAC, the functions of the President under that Act, except that of reporting to the Congress, shall be performed by the Department of Commerce in accordance with the guidelines and procedures established by the Administrator of General Services.

(ii) The Council shall terminate 2 years from the date of this order, unless extended by the President prior to that date.

(iii) Executive Order 13130 of July 14, 1999, is hereby revoked.

Sec. 11. National Communications System. Changes in technology are causing the convergence of much of telephony, data relay, and internet communications networks into an interconnected network of networks. The NCS and its National Coordinating Center shall support use of telephony, converged information, voice networks, and next generation networks for emergency preparedness and national security communications functions assigned to them in Executive Order 12472. All authorities and assignments of responsibilities to departments and agencies in that order, including the role of the Manager of NCS, remain unchanged except as explicitly modified by this order.

Sec. 12. Counter-intelligence. The Board shall coordinate its activities with those of the Office of the Counter-intelligence Executive to address the threat to programs within the Board's purview from hostile foreign intelligence services.

Sec. 13. Classification Authority. I hereby delegate to the Chair the authority to classify information originally as Top Secret, in accordance with Executive Order 12958 of April 17, 1995, as amended, or any successor Executive Order.

Sec. 14. General Provisions. (a) Nothing in this order shall supersede any requirement made by or under law.

(b) This order does not create any right or benefit, substantive or procedural, enforceable at law or equity, against the United States, its departments, agencies or other entities, its officers or employees, or any other person.

GEORGE W. BUSH

THE WHITE HOUSE,

October 16, 2001.

APPENDIX T—EXECUTIVE SUMMARY OF CDC DRAFT SMALLPOX PLAN

Executive Summary for CDC Interim Smallpox Response Plan and Guidelines

In response to the potential use of biological agents against civilians, the Federal government has committed to upgrading preparedness, readiness, and national defenses against bio-terrorist weapons. The Centers for Disease Control and Prevention (CDC) has been designated as the lead agency for upgrading national public health capabilities for responding to biological terrorism. Many biological agents could be used to attack civilians, however, only a few, such as smallpox virus, have the ability to cause illness or panic to the extent that existing medical and public health systems would be overwhelmed. Although smallpox was globally eradicated by the late 1970's, there remains concern that stores of smallpox virus may exist in laboratories other than the two WHO designated repositories. If an outbreak of smallpox were to occur, several factors could contribute to a more rapid spread of smallpox than was routinely seen before this disease was eradicated. These factors include: 1) virtually non-existent immunity to smallpox in the absence of naturally occurring disease and the discontinuation of routine vaccination in the United States in the early 1970's, 2) potentially delayed recognition of smallpox by health personnel who are unfamiliar with the disease, and 3) increased mobility and crowding of the population. Because of these factors, a single case of smallpox would require an immediate and coordinated public health and medical response to contain the outbreak and prevent further infection of susceptible individuals.

The possibility for the use of smallpox virus as a bio-terrorism agent and the potential for its rapid spread, have prompted the updating of a response plan previously developed by the Centers for Disease Control and Prevention's (CDC) for responding to the potential importation of smallpox during the 1970's. This updated "Interim Smallpox Response Plan and Guidelines" incorporates, and extends, many of the concepts and approaches that were successfully employed 30 to 40 years ago to control smallpox outbreaks. These overall concepts for outbreak containment contributed greatly to the eventual global eradication of smallpox. Thus, while this document is an updated plan, many of the elements in the plan have been extensively and successfully utilized in prior decades. Overall, this document outlines the public health strategies and approaches that would guide the public health response to a smallpox emergency. This interim document also identifies many of the federal, state, and local public health activities that must be undertaken in a smallpox emergency. This plan, much of which has been in place for years, will be regularly updated to reflect changes in capacities and resources for responding to a smallpox emergency.

Smallpox

Variola virus is the etiological agent of smallpox. The only known reservoir for the virus during the smallpox era was humans; there were no known animal or insect reservoirs or vectors. The most frequent mode of transmission is person-to-person spread via direct deposit of infective droplets onto the nasal, oral, or pharyngeal mucosal membranes, or the alveoli of the lungs from close, face-to-face contact with an

infectious individual. Indirect spread (not requiring face-to-face contact with an infectious individual) via fine-particle aerosols or fomites containing the virus has been reported but is less common. Fine-particle aerosol spread appears to occur more commonly with severe forms of smallpox, such as hemorrhagic smallpox, where virus titers are very high and sustained, or in cases where a significant cough (which can generate fine-particle aerosols) is present in the first week of illness (when oropharyngeal viral shedding is typically highest).

In the majority of cases, symptoms of disease usually begin within 12-14 days (range 7-17) following the exposure of a susceptible person to the virus and consists of a 2-3 day prodrome of high fever, malaise, and prostration with severe headache and backache. This pre-eruptive stage of the disease is then followed by the appearance of a maculopapular rash (eruptive stage) that progresses to papules (1-2 days after appearance of rash), vesicles (4-5th day), pustules (by 7th day), and finally scab lesions (14th day). The rash generally appears first on the oral mucosa, face, and forearms, then spreads to the trunk and legs. Lesions are also seen on the palms of the hands and soles of the feet. The skin lesions of smallpox are deeply embedded in the dermis and feel like firm round objects embedded in the skin. As the skin lesions heal and the scabs separate, pitted scarring gradually develops. Smallpox patients are most infectious during the first week of the rash when the oral mucosa lesions ulcerate and release the large amounts of virus into the saliva and are less infectious once the lesions have scabbed over. A patient is no longer infectious once all the scabs have separated (usually 3-4 weeks after the onset of the rash). The overall mortality rate associated with smallpox was approximately 30%. Other less common but more severe forms of smallpox include: 1) flat-type smallpox with a mortality rate >96%, characterized by severe toxemia and flat, velvety, confluent lesions that do not progress to the pustular stage, and 2) hemorrhagic-type smallpox, characterized by severe prodromal symptoms, toxemia, and a hemorrhagic rash that was almost always fatal with death usually occurring 5-6 days after the onset of the rash. (See Annex 1 – Overview of Smallpox and Medical Care of Smallpox Patients for a more complete discussion of smallpox)

Smallpox Vaccine

Smallpox vaccine is a highly effective immunizing agent. It is a live-virus vaccine composed of vaccinia virus, an orthopoxvirus that induces antibodies that also protect against smallpox. Its use in focused ring vaccination campaigns that utilized intensive surveillance and contact-tracing during the smallpox eradication program helped bring about the global eradication of smallpox. The last naturally-acquired case of smallpox occurred in Somalia in 1977. In May 1980, the World Health Assembly certified that the world was free of smallpox. Smallpox vaccine production ceased in the early 1980's and current supplies of smallpox vaccine are limited. However, it is expected that new cell-culture grown smallpox vaccines will become available for use within the next 2-4 years.

Although smallpox vaccine is considered a safe vaccine, post-vaccination adverse events can occur. These adverse events and their rates as determined in a 1968 10-state survey include: 1) inadvertent inoculation (529.2/million primary vaccinations), 2) generalized vaccinia (241.5/million primary vaccinations), 3) eczema vaccinatum

(38.5/million vaccinations), 4) progressive vaccinia (1.5/million primary vaccinations), and 5) post-vaccinial encephalitis (12.3/million primary vaccinations). Death also occurs in about one per million primary vaccinations and is usually a result of progressive vaccinia, post-vaccinial encephalitis, or severe eczema vaccinatum.

Several groups have been identified as having a higher risk for developing post-vaccination complications. These include: 1) persons with eczema (including a history of eczema) or other forms of chronic dermatitis, and 2) persons with altered immune states (e.g. HIV, AIDS, leukemia, lymphoma, immunosuppressive drugs, etc.). In addition, because of the small risk for fetal vaccinia, vaccination is not recommended during pregnancy. Children under 1 year of age, or older adolescents or young adults receiving primary vaccination may also have a greater risk of post-vaccination complications. Vaccinia Immune Globulin (VIG) is used to treat certain vaccine adverse reactions, however supplies of the VIG are also limited. CDC Interim Smallpox Response Plan and Guidelines

This Interim Smallpox Response Plan is a working document that is updated regularly. Since state and local health officials are at the heart of an effective response to a smallpox emergency, their input is currently being sought, and it is anticipated that this plan will be updated frequently in the coming months. The plan is, however, operational and would be implemented should a smallpox emergency occur. The CDC Director may implement all or portions of the CDC Smallpox Response Plan under the "Criteria for Implementation" that are found in the next section.

As this plan illustrates, an effective response to a smallpox emergency will necessitate extensive involvement and coordination of CDC with state and local public health activities. This interim document thus identifies many of the federal, state, and local public health activities that must be undertaken in a smallpox emergency. This document is organized into multiple sections. These sections outline criteria for smallpox response plan implementation, notification procedures for suspected cases, CDC and state and local responsibilities and activities—including some that should take place prior to a smallpox emergency—and CDC vaccine and personnel mobilization. This plan also provides Guidelines and Annexes to assist federal, state, and local health officials in implementing the specific activities that are essential for the management of a smallpox emergency. The general response strategy and priority activities are outlined below.

General Strategy and Priority Activities for Smallpox Outbreak Containment

As this plan states, the first and foremost public health priority during a smallpox outbreak is control of the epidemic. The following activities would be essential to accomplishing this goal.

Ring Vaccination

Any vaccination strategy for containing a smallpox outbreak should utilize the ring vaccination concept. This includes isolation of confirmed and suspected smallpox cases

with tracing, vaccination, and close surveillance of contacts to these cases as well as vaccination of the household contacts of the contacts.

Vaccinating and monitoring a "ring" of people around each case and contact will help to protect those at the greatest risk for contracting the disease as well as form a buffer of immune individuals to prevent the spread of disease. This strategy would be more desirable than an indiscriminate mass vaccination campaign for the following reasons:

1. Focused contact tracing and vaccination combined with extensive surveillance and isolation of cases was successful in stopping outbreaks of smallpox during the eradication program without the need for indiscriminate vaccination.[1]

2. Adverse events would be expected to be higher in an indiscriminate vaccination campaign due to vaccination of persons with unrecognized contraindications (e.g. undiagnosed immunosuppressive disorders such as HIV or AIDS). Careful screening for contraindications to vaccination would also be more difficult in a large scale vaccination campaign. The risks vs. benefits of vaccination ratio would be higher in such a campaign because of the inevitable vaccination of persons with high risk of adverse events and a low risk of smallpox.

3. Current supplies of VIG would not be sufficient to treat the number of expected adverse events that would occur with a large, indiscriminate vaccination campaign.

4. Current supplies of smallpox vaccine would be exhausted quickly if an indiscriminate campaign was utilized, potentially leaving no vaccine for use if smallpox cases continued to occur

5. Mass, indiscriminate vaccination of a large population would require a very large number of health-care/public health workers to perform vaccination and deal with the higher number of adverse events

6. Utilization of mass vaccination may lead to improper reliance on this strategy to control the outbreak with less focus on other essential outbreak control measure such as careful surveillance, contact tracing, and isolation of cases. This could also lead to inadequate supplies of vaccine for areas with the greatest need and potentially prolong the epidemic instead of controlling it.

Depending upon, 1) the option for outbreak control that is selected, 2) the size of the outbreak, 3) personnel resources, 4) effectiveness of other outbreak control measures, and 4) vaccine availability, the size of the vaccinated "ring" of individuals surrounding a case or contact may be modified (expanded or contracted). However, the ring vaccination concept should be maintained overall. The determination of the initial

[1] Although individuals with smallpox are not infectious until the onset of rash, vaccinating contacts from the time of the onset of fever helps provide a buffer and assures that contacts who may have been exposed at the early onset of rash, when the rash may have been faint and unrecognized, have been vaccinated.

vaccination ring size or alteration of subsequent vaccination ring sizes will be made jointly by Federal and State health officials.

Identification of Priority Groups

The following are considered high risk groups and should be prioritized for vaccination in a smallpox outbreak:

1. Face-to-face close contacts (= 6.5 feet or 3 meters), or household contacts to smallpox patients after the onset of the smallpox patient's fever.

2. Persons exposed to the initial release of the virus (if the release was discovered during the first generation of cases and vaccination may still provide benefit)

3. Household members (without contraindications to vaccination) of contacts to smallpox patients[2] (to protect household contacts should smallpox case contacts develop disease while under fever surveillance at home)

4. Persons involved in the direct medical care, public health evaluation[3], or transportation of confirmed or suspected smallpox patients

5. Laboratory personnel involved in the collection and/or processing of clinical specimens from suspected or confirmed smallpox patients

6. Other persons who have a high likelihood of exposure to infectious materials (e.g. personnel responsible for hospital waste disposal and disinfection)

7. Personnel involved in contact tracing and vaccination, or quarantine/isolation or enforcement, or law-enforcement interviews of suspected smallpox patients[4]

8. Persons permitted to enter any facilities designated for the evaluation, treatment, or isolation of confirmed or suspected smallpox patients[5] (only essential personnel should be allowed to enter such facilities)

[2] Household members of contacts who have contraindications to vaccination should be housed separately from the other vaccinated household members until the vaccination site scab has separated (~ 2 weeks) to prevent inadvertent transmission of vaccinia virus. They should be alsobe housed separately from the contact until the incubation period for smallpox has passed and the contact is released from surveillance.
[3] Includes personnel whose public health activities involve direct patient contact such as case interviewing.
[4] Includes personnel whose public health activities involve direct patient contact such as case interviewing.
[5] Only personnel without contraindications to vaccination should be chosen for activities that would require vaccination for their protection. Personnel with contraindications should not perform duties that would place them at risk for smallpox exposure and should otherwise only be vaccinated if an exposure has already occurred.

9. Persons present in a facility or conveyance with a smallpox case if fine-particle aerosol transmission was likely during the time the case was present (e.g. hemorrhagic smallpox case and/or case with active coughing).[6]

Additional Groups that Would Be Considered for Voluntary Vaccination

Federal, State, and Local response personnel not involved in direct patient or contact evaluation or care but whose uninterrupted support of response activities is deemed essential may be considered for voluntary vaccination. Vaccination of these personnel will be dependent upon the size of the outbreak, availability of vaccine, the assessed risk for unintentional or unrecognized contact with smallpox cases, and a careful assessment of the benefits vs. the risks of vaccination. Only personnel within these non-patient contact groups who have no contraindications will be considered for vaccination. Persons within these groups with contraindications should not be vaccinated. The decision to offer voluntary vaccination non-patient contact personnel will be made by the Director, CDC. These groups include, but are not limited to:

1. Public health personnel in the area involved in surveillance and epidemiological data analysis and reporting whose support of these public health activities must remain unhindered

2. Logistics/resource/emergency management personnel whose continued support of response activities must remain unhindered

3. Law enforcement, fire, and other personnel involved in other non-direct patient care response support activities such as crowd control, security, law enforcement, and firefighting/rescue operations

Overview: Activities and Guidelines

This Interim Smallpox Response Plan and Guidelines document outlines, and in some cases, describes in detail, many of the pre- and post-event activities that need to be, or would be undertaken, in response to a smallpox emergency. These include:

Surveillance and Epidemiological Investigations:

- Pre-event rash surveillance
- Smallpox clinical presentations and differential diagnosis guidelines
- Smallpox case definitions
- Notification procedures for suspected smallpox cases
- Case and outbreak investigations

General Vaccination activities:

[6] Evaluation of the potential risk for aerosol transmission and initiation of vaccination for non-direct contacts will be done by CDC, state, and local public health personnel. The decision to offer vaccination to non-direct contacts of smallpox cases will be made jointly by Federal and the State health officials.

• CDC vaccine deployment
• Clinic vaccination procedures and adverse event reporting
• Rapid identification and vaccination of all priority groups (non-contact and contact)
• Education and evaluation of vaccine responses with revaccination when needed
• Education, recognition, and treatment of vaccine adverse events
• Decontamination guidelines
• Monitoring of vaccine utilization and supplies

Quarantine/Isolation related activities:

• Fever/rash surveillance and education of contacts (vaccinated and unvaccinated)
• Isolation and care of smallpox patients during the infectious period

Surveillance activities:

• Identification and reporting of suspected smallpox cases through active surveillance at the local, state, national, and international levels
• Surveillance of vaccine adverse events

Epidemiology:

• Epidemiological investigation of the outbreak to determine at-risk populations (contacts), source of outbreak, and risk factors for illness • Specimen collection and transportation guidelines

Public/Media Communications:

• Communications principles and guidelines • Pre-event communication education and information
• Smallpox emergency communication operations and activities

These inter-related, multifaceted activities are discussed in the Guides and Annexes that follow. In addition, this Interim Smallpox Plan identifies, and provides examples, of many of the specific activities, forms, and procedures that should be followed in preparation for, and in response to, a smallpox emergency.

The CDC Interim Smallpox Response Plan and Guidelines is a draft document that will be updated as needed to reflect changes in capacities and resources for responding to a smallpox emergency. Public health authorities will be notified when updated drafts are available.

APPENDIX U—PANEL ACTIVITIES—CALENDAR YEAR 2001

During the past year, the panel held five formal meetings:

March 29-30, 2001, RAND Washington Office, Arlington, VA
June 18-19, 2001, RAND Washington Office, Arlington, VA
August 26-27, 2001, RAND Washington Office, Arlington, VA
September 24, 2001, RAND Washington Office, Arlington, VA
November 12-13, 2001, RAND Washington Office, Arlington, VA

During the course of those meetings, panel members received formal presentations as follows:

- "Rethinking the Role of Border Controls," Commander Steven Flynn, U.S. Coast Guard, Senior Fellow, National Security Studies Program, Council on Foreign Relations
- "The Role of the Coast Guard in Combating Terrorism," Rear Admiral Terry Cross, Assistant Commandant for Operations, U.S. Coast Guard
- "Terrorism Preparedness and Response for the U.S. Coast Guard," Jeffrey High, Director of Waterways Management, U.S. Coast Guard
- "U.S. Customs and Border Security," John McGowan, Executive Director, Enforcement Planning, Office of Field Operations, U.S. Customs Service
- "INS and Border Security," Michael Cronin, Acting Executive Associate Commissioner for Programs, Immigration and Naturalization Service
- "The Role of the Military in Domestic Terrorism Preparedness," Charles Cragin, Acting Assistant to the Secretary of Defense for Civil Support
- "The Use of the Military in Terrorism Response," T.K. Custer, Director for Counterterrorism, Office of the Assistant Secretary-Special Operations/Low Intensity Conflict, Office of the Secretary of Defense
- "Organized Medicine's Role in the National Response to Terrorism," Dr. Scott Deitchman, American Medical Association Council for Scientific Affairs
- "Laboratory Response Network for Bioterrorism," Dr. Scott Lillibridge, Director, Bioterrorism Prevention and Response, Centers for Disease Control and Prevention
- "Implementing Hospital Standards for Terrorism Response," Margaret Van Ameringe, Vice President, External Affairs, Joint Commission on Accreditation of Healthcare Organizations
- "Cyber Security," Richard Clarke, National Coordinator for Security, Counter-terrorism, and Infrastructure Protection, National Security Council
- "Critical Infrastructure Protection," John Tritak, Director, Critical Infrastructure Assurance Office, Department of Commerce
- "Critical Infrastructure Protection," Ron Dick, Director, National Infrastructure Protection Center, Federal Bureau of Investigation
- "Cyber Protection as a National Security Issue," Captain Robert West, U.S. Navy, Deputy Commander, Joint Task Force-Computer Network Defense, U.S. Space Command
- "The Role of the Military in Information Assurance," William Leonard, Deputy Assistant Secretary of Defense-Command, Control, Communications, and Intelligence, Office of the Secretary of Defense

- "Public Safety Planning for Special Events," David Tubbs, Director, Utah Olympics Public Safety Command
- "The Congress after 11 September," The Honorable Curt Weldon, U.S. House of Representatives
- "Responding to Acts of Terror: the Aftermath of the Attack on the Pentagon," Chief Ed Plaugher, Arlington County Fire Department (at the Pentagon crash site)
- "Congressional Actions since 11 September 2001," Suzanne Spaulding, RAND Consultant
- "The Use of Imaging Intelligence for Combating Terrorism," James Clapper, Director, National Imaging and Mapping Agency
- "Recent Changes in the Department of Defense to Address Homeland Security," Dr. Michelle Van Cleave, Office of the Secretary of Defense

Under the provisions of the Federal Advisory Committee Act, meetings of the panel are generally open to the public, except when national security classified information is being presented or discussed, or for one of the other exceptions stated in the Act. Notices of meetings are published in the Federal Register and posted on the panel's web page on the RAND web site, http://www.rand.org. Unclassified minutes of the panel meetings are posted to the same web page as soon as the panel has approved them.

Panel members and support staff also attended and participated directly in numerous conferences, workshops, and symposia on the subject of terrorism. In addition, panel members and staff attended numerous Congressional hearings on terrorism and presented testimony when appropriate.

APPENDIX V—RAND STAFF PROVIDING SUPPORT TO THE ADVISORY PANEL

Executive Project Director

Michael Wermuth

Research Staff for the Report

Kathryn Anderson	Linda Demaine	Roger Molander	Lila Shapiro
Janice Blanchard	Ron Fricker	David Mussington	Suzanne Spaulding
David Brannan	Bruce Hoffman	Sarah Cotton Nelson	Amy Wells
Jennifer Brower	Brian Houghton	Jennifer Pace	Michael Wermuth
Peter Chalk	Gerald Jacobsen	John Parachini	Traci Williams
Kim Cragin	Lisa Jones	Carolyn Rogers	Peter Wilson
Lois Davis	Martin Libicki	William Rosenau	Danielle Zink
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Administrative Support

Nancy Rizor	Sandra Hanson	Christel Chichester	Priscilla Schlegel

Other RAND Staff Providing Support

Nykolle Brooks	Hunter Granger	Phillip Mazzocco	Carlos Vallejo
Shirley Burch	Tyrone Greene	Kathy Mills	Deanna Webber
Molly Coleman	Candace Hoffman	Kenneth Myers	Elwood Whitaker
Jess Cook	Peter Hoffman	Carolyn Rogers	Natalie Ziegler
Mary Evans	Emily King	Amy Rudibaugh	
David Feliciano	Judy Lewis	Dan Sheehan	
Leanna Ferguson	Lee Meyer	Diana Thornton	

RAND Corporate Leadership for the Project

Jeffrey Isaacson, Vice President, National Security Research Division, and Director, National Defense Research Institute (NDRI)

Susan Everingham, Director, Forces and Resources Policy Center (NDRI)

Stuart Johnson, Director, International Security and Defense Policy Center (NDRI)

LIST OF KEY RECOMMENDATIONS BY ENTITY

- **Executive and Legislative Branches Jointly**
  - Establish a government-owned, contractor-operated national vaccine and therapeutics facility
  - Create, provide resources for, and mandate participation in a "Border Security Awareness" database system
  - Negotiate more comprehensive treaties and agreements for combating terrorism with Canada and Mexico
  - Convene a "summit" to address Federal statutes changes that would enhance cyber assurance
  - Establish a homeland security undersecretary position in the Department of Defense
- **The President**
  - Ensure that all border agencies are partners in intelligence collection, analysis, and dissemination
  - Establish "Trusted Shipper" programs
  - Include private and State and local representatives on the interagency critical infrastructure advisory panel
  - Establish a government-funded, not-for-profit entity for cyber detection, alerting, and warning functions
  - Develop and implement a comprehensive plan for cyber research, development, test, and evaluation
- **Office of Homeland Security**
  - Consolidate Federal grant program information and application procedures
  - Establish an information clearinghouse about Federal programs, assets, and agencies
  - Review and recommend changes to plans for vaccine stockpiles and critical supplies (with DHHS and DVA)
  - Develop on-going public education programs on terrorism causes and effects
  - Develop a comprehensive plan for researching terrorism-related medical issues
  - Develop an education plan on the legal and procedural issues for health and medical response to terrorism
  - Create an intergovernmental border advisory group
  - Fully integrate all affected entities into local or regional "port security committees"
  - Expand and consolidate research, development, and integration of border sensor, detection, and warning systems
- **Relevant Executive Branch Agencies**
  - Increase and accelerate the sharing of terrorism-related intelligence and threat assessments (All)
  - Design training and equipment programs for all-hazards preparedness (All)
  - Design Federal preparedness programs to ensure first responder participation, especially volunteers (All)
  - Redesign Federal training and equipment grant programs to include sustainment components (All)
  - Configure Federal military response assets to support and reinforce existing structures and systems (DoD)
  - Develop standard medical response models for Federal, State, and local level hazards (DHHS)
  - Reestablish a pre-hospital Emergency Medical Service Program Office (DHHS)
  - Revise current EMT and PNST training and refresher curricula (DOT/NHTSAO)
  - Review MMRS and NDMS authorities, structures, and capabilities (DHHS with OHS)
  - Establish a unified command and control structure to execute all military support to civil authorities (DoD)
  - Develop detailed plans for the use of the military domestically across the spectrum of potential activities (DoD)
  - Expand training and exercises in relevant military units with Federal, State, and local responders (DoD)
  - Direct new mission areas for the National Guard to provide support to civil authorities (DoD)
  - Publish a compendium of statutory authorities for using the military domestically to combat terrorism (DoD)
  - Improve the military full time liaison elements in the ten Federal Emergency Management Agency regions (DoD)
- **The Congress**
  - Increase funding to States and localities for combating terrorism
  - Fully resource the CDC Biological and Chemical Terrorism Strategic Plan
  - Fully resource the CDC Laboratory Response Network for Bioterrorism
  - Fully resource the CDC Secure and Rapid Communications Networks
  - Increase Federal resources for exercises for State and local health and medical entities
  - Require shippers to submit cargo manifest information simultaneously with shipments transiting U.S. borders
  - Expand Coast Guard search authority to include U.S. owned—not just "flagged"—vessels
  - Increase resources for the U.S. Coast Guard for homeland security missions
  - Create a commission to assess and make recommendations on programs for cyber security
  - Create a special "Cyber Court" patterned after the court established in the FISA
- **State and Local Governments and the Private Sector**
  - Implement the AMA Recommendations on Medical Preparedness for Terrorism
  - Implement the JCAHO Revised Emergency Standards

LIST OF KEY RECOMMENDATIONS BY SUBJECT

- **State and Local Response Capabilities**
  - Increase and accelerate the sharing of terrorism-related intelligence and threat assessments
  - Design training and equipment programs for all-hazards preparedness
  - Redesign Federal training and equipment grant programs to include sustainment components
  - Increase funding to States and localities for combating terrorism
  - Consolidate Federal grant program information and application procedures
  - Design Federal preparedness programs to ensure first responder participation, especially volunteers
  - Establish an information clearinghouse on Federal programs, assets, and agencies
  - Configure Federal military response assets to support and reinforce existing structures and systems
- **Health and Medical Capabilities**
  - Implement the AMA Recommendations on Medical Preparedness for Terrorism
  - Implement the JCAHO Revised Emergency Standards
  - Fully resource the CDC Biological and Chemical Terrorism Strategic Plan
  - Fully resource the CDC Laboratory Response Network for Bioterrorism
  - Fully resource the CDC Secure and Rapid Communications Networks
  - Develop standard medical response models for Federal, State, and local levels
  - Reestablish a pre-hospital Emergency Medical Service Program Office
  - Revise current EMT and PNST training and refresher curricula
  - Increase Federal resources for exercises for State and local health and medical entities
  - Establish a government-owned, contractor-operated national vaccine and therapeutics facility
  - Review and recommend changes to plans for vaccine stockpiles and critical supplies
  - Develop a comprehensive plan for research on terrorism-related health and medical issues
  - Review MMRS and NDMS authorities, structures, and capabilities
  - Develop an education plan on the legal and procedural issues for health and medical response to terrorism
  - Develop on-going public education programs on terrorism causes and effects
- **Immigration and Border Control**
  - Create an intergovernmental border advisory group
  - Fully integrate all affected entities into local or regional “port security committees”
  - Ensure that all border agencies are partners in intelligence collection, analysis, and dissemination
  - Create, provide resources for, and mandate participation in a “Border Security Awareness” database system
  - Require shippers to submit cargo manifest information simultaneously with shipments transiting U.S. borders
  - Establish “Trusted Shipper” programs
  - Expand Coast Guard search authority to include U.S. owned—not just “flagged”—vessels
  - Expand and consolidate research, development, and integration of sensor, detection, and warning systems
  - Increase resources for the U.S. Coast Guard for homeland security missions
  - Negotiate more comprehensive treaties and agreements for combating terrorism with Canada and Mexico
- **Cyber Security**
  - Include private and State and local representatives on the interagency critical infrastructure advisory panel
  - Create a commission to assess and make recommendations on programs for cyber security
  - Establish a government funded, not-for-profit entity for cyber detection, alert, and warning functions
  - Convene a “summit” to address Federal statutory changes that would enhance cyber assurance
  - Create a special “Cyber Court” patterned after the court established in FISA
  - Develop and implement a comprehensive plan for cyber security research, development, test, and evaluation
- **Use of the Military**
  - Establish a homeland security under secretary position in the Department of Defense
  - Establish a single unified command and control structure to execute all military support to civil authorities
  - Develop detailed plans for the use of the military domestically across the spectrum of potential activities
  - Expand training and exercises in relevant military units and with Federal, State, and local responders
  - Direct new mission areas for the National Guard to provide support to civil authorities
  - Publish a compendium of statutory authorities for using the military domestically to combat terrorism
  - Improve the military full-time liaison elements in the ten Federal Emergency Management Agency regions

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