

PREFACE

This After-Action Report (AAR) was produced with the help, advice, and assistance of Domestic Preparedness Biological Weapons Tabletop Exercise (BWTTX) participants from many Federal, State, and local departments and agencies. The purpose of publishing an AAR is to document effectiveness and overall exercise performance. As such, this report is tangible evidence of our Federal, State, and local Domestic Preparedness Program (DPP) partnership. It serves as a compendium of lessons learned, outlines recommended corrective actions, and provides the basis for planning future exercises. This, along with the Chemical Weapons Tabletop Exercise (CWTTX) and Chemical Weapons Full-Scale Exercise (CWFSE) AARs, will contribute to improving response, responder training, exercise and preparedness testing, and the provision of expert assistance. Exercises serve as “final accountability” of collective preparedness. Exercise evaluation, such as this report, documents readiness and recommends plans for improvement. The DPP is committed to giving program participants an accurate analysis of the training and exercises.

The Domestic Preparedness exercise series is provided under the authority and funding of the FEDERAL PROGRAM. The exercise program includes one chemical and one biological terrorism tabletop and a chemical full-scale exercise. These activities build on and reinforce the training provided to first responders and the medical community by allowing them to test their plans, procedures, and training. Program participants are encouraged to provide input relating to exercise design, conduct, and analysis to the Director, Exercise and Evaluation Division, Office for Domestic Preparedness.

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INTRODUCTION

As the result of recent events, significant threats over the past few years, and the increased availability and proliferation of nuclear, biological, or chemical (NBC) materials, there is an increasing concern for the potential of terrorist incidents occurring in the United States involving weapons of mass destruction (WMD).

“Report on Government Capabilities to Respond to Terrorist Incidents Involving Weapons of Mass Destruction—Message from the President of the United States,” U.S. House of Representatives, February 26, 1997.

The possibility of weapons of mass destruction (WMD) falling into the hands of terrorists adds a frightening threat to U.S. national security. The events of September 11, 2001, at the World Trade Center towers in New York City, the Pentagon, and western Pennsylvania have not only illustrated the human toll that terrorist attacks in this country can impose, but also have highlighted terrorists’ attempts to threaten the very fabric of our economic and social structure. Although the September 11 attacks did not involve the use of chemical or biological (C/B) weapons, the fall 2001 cases of anthrax delivered through the mail demonstrate that this capability is present and a viable threat.

For more than two decades, prominent experts have warned that terrorist groups could threaten or use C/B weapons against civilian populations. Although such weapons were used (or threatened) in isolated, relatively minor, past instances, the Aum Shinrikyo’s March 1995 Tokyo subway attack marked their first successful use in a large-scale, indiscriminate assault on a major urban area. The cult also had plans for bioterrorism: its arsenal included large quantities of nutrient growth media, botulinum toxin, anthrax cultures, and drone aircraft equipped with spray tanks. Members of the group had traveled to Zaire during the 1992 Ebola outbreak to obtain samples of Ebola virus for weapons development. Closer to home, the recent anthrax cases in Florida, Washington, DC, and New York serve to validate the reality of the biological threat, and heighten the urgency with which we need to examine our capabilities and vulnerabilities. Additionally, investigations in Afghanistan and elsewhere suggest that Osama bin Laden’s al Qaeda network was researching and possibly developing C/B agents and dissemination methods.

The likelihood of future employment of C/B agents by terrorists may be growing, given current and potential trends including the following:

- Increased security against traditional types of terrorist attacks.
- Public indifference, requiring ever-more spectacular acts to attract attention.
- Recent increases in high-casualty, less discriminate attacks.

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- The growth of state-sponsored terrorism, combined with the proliferation of C/B weaponry and materials.
- The increase in interethnic and religiously inspired violence.
- The availability of materials and weapons expertise from the former Soviet Union and its allies (including the rise in organized crime in such countries).
- Reprisals for actual or anticipated U.S. actions worldwide against terrorist organizations linked to or associated with the World Trade Center, Pentagon, or Pennsylvania events, as well as nation-states suspected of harboring or assisting terrorists.

This After-Action Report (AAR) focuses on the impact a bioterrorism event could have on the CITY community. Such a threat poses a significant challenge. This threat includes the potential for exposing a large number of people to the released agent; secondary transmission of the disease from one infected individual to another; massive demands on the healthcare system; and the possibility of a numerous fatalities before effective prevention and public health measures could be established. Strengthening the capacity for public health response to intentional acts involving biological weapons requires recognition of the unique, yet interdependent, roles that Federal, State, and local agencies play in this coordinated response. This AAR highlights some of those interrelationships; it captures the primary issues discussed during the exercise and gives the community a series of recommendations to consider for improving its biological weapons response capabilities.

EXECUTIVE SUMMARY

THE CITY'S Domestic Preparedness Biological Weapons Tabletop Exercise (BWTTX) was conducted IN THE FALL, as part of the FEDERAL Domestic Preparedness Program (DPP). More than 100 participants representing Federal, State, and local agencies participated in this exercise. The purpose of the BWTTX was to assess the impact of a bioterrorist attack on the CITY community and to facilitate interaction, coordination, and problem solving among the numerous public agencies charged with responding to such a horrific act.

Design Objectives

To help better identify local vulnerabilities to a public health emergency caused by an act of bioterrorism, THE CITY also selected the following five specific objectives to explore during their tabletop exercise:

- 1. Public and Private Sector Interface.** Examine Federal, State, and local interactions with the public and private sector during the threat or actual occurrence of a biological WMD event, including contingency planning for controlling and limiting the spread of contamination.
- 2. Interfacing with Federal, State, and Local Agencies.** Examine the interface among Federal, State, and local agencies in the conduct of crisis and consequence management activities.
- 3. Awareness of Federal and State Capabilities.** Broaden the understanding of local authorities and responders to the capabilities available from Federal and State agencies (i.e., Department of Energy [DOE], Department of Health and Human Services [HHS], Environmental Protection Agency [EPA], Department of Defense [DoD], and Federal Emergency Management Agency [FEMA]) in responding to a terrorist-initiated biological weapons event.
- 4. Bioremediation.** Assess the local response community's ability to reduce the spread of biological contamination. Discuss various remediation measures such as decontamination, personal protective equipment (PPE), and cleanup.
- 5. Medical Capabilities.** Determine major shortcomings in local medical capabilities to treat casualties of a WMD agent. Identify means to obtain resources and assess the impact of delays in their receipt.

These objectives, identified by the CITY community, helped guide the development of the Situation Manual (SITMAN) and focus discussions during the exercise.

Did We Address the Design Objectives?

All participants recognized the unique nature of a bioterrorism incident and the challenges they would face during a response to it. The tabletop exercise was effective in promoting the exchange of information across functional disciplines, and engendering an atmosphere of information sharing and integration that will be required to effectively respond to, and manage the impacts of, a bioterrorism incident.

Participants discussed local interactions with private sector agencies within THE CITY. Public sector agencies will no doubt play a major role in the response to a bioterrorism incident, but THE CITY is home to several small businesses and other large corporations that may be severely affected by such an incident (Objective 1).

The exercise gave participants an opportunity to discuss the respective roles of Federal, State, and local response agencies. In the scenario, all levels of response identified their missions in the conduct of consequence and crisis management activities. Additionally, the integration of State and local mutual-aid resources and Federal response assets was considered (Objective 2).

Following the tabletop exercise, the local response community and staff had a better understanding of what Federal and State resources would be available during a WMD incident. They also determined strategies for requesting these assets and ultimately integrating them once they arrive (Objective 3).

In the scenario, a biological agent was released in an arena and caused many citizens to be affected. The bulk of the discussion at each functional table centered on what each agency would be responsible for doing during the bioremediation phase of the scenario. Short-term and long-term recovery was discussed as well as how the incident site would be restored for future use (Objective 4).

Personnel from agencies that staff the CITY Emergency Operations Center (EOC) and carry out Emergency Support Function (ESF) #8 – THE HEALTH DEPARTMENT was able to determine what shortcomings the medical and public health communities in THE CITY face. Issues such as treatment and resource requests were the center of the discussion (Objective 5).

BWTTX – CITY was a vehicle that enabled participants to address what areas city planners saw as vital to improving the local response capabilities. Overall, participants addressed the objectives identified for the tabletop, and were able to identify other areas for further discussion, clarification, and improvement.

BWTTX Organization

The facilitated BWTTX used a full multimedia format. Organized into the following three modules, the SITMAN focused the discussion of issues in a logical sequence against the backdrop of an unfolding scenario:

- **Module 1 (Incubation)** presented participants a number of citizens showing signs and symptoms of a flu-like outbreak. The outbreak escalated rapidly during several days, taxing the local healthcare community.
- **Module 2 (Initial Response)** began with suspicions of pneumonic plague (*Yersinia pestis*). Federal, State, and local resources deployed to the CITY area. Laboratory analysis confirmed the agent as plague.
- **Module 3 (Response and Recovery)** addressed long-term issues associated with restoration and recovery in the aftermath of the attack.

Each exercise module began with a situation briefing. Players divided into functional discussion groups that reflected their roles in a real event and sought to facilitate identification of issues relevant to specific response communities. Functional groups for BWTTX – CITY were the following:

- EOC/Policy
- Public Safety
- ESF #8
- Regional Domestic Security Task Force (RDSTF)
- Joint Information Center (JIC)

Each caucus session lasted 30 to 45 minutes. During this time, functional groups reviewed the situation, identified critical issues, discussed key decisions and response actions, and engaged in problem solving. Questions provided at the back of each module helped focus player discussions. At the end of each caucus period, exercise facilitators moderated an all-group discussion to highlight key issues for each response phase. The success of the exercise was a testament to the animated and insightful discussions of participants.

BWTTX Scenario

Bioterrorism involves the use of microorganisms (i.e., bacteria, viruses, fungi) or toxins from living organisms to produce death or disease in humans. The impact of a bioterrorism attack depends on the specific agent or toxin employed, amount disseminated, method and efficiency of dispersal, population exposed, availability of effective post-exposure and/or therapeutic regimens, and potential for secondary transmission. Some biological agents can result in mortality rates in unprotected and untreated populations to near 100 percent affected.

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For BWTTX – CITY, a hypothetical scenario was designed to exercise the specific community-determined exercise objectives previously described. The scenario involved the release of a quantity of *Yersinia pestis* at a concert at AN INDOOR ARENA IN THE FALL. Approximately 18,000 people from around THE STATE were in attendance.

Initially, there was no recognizable pattern to events, with only isolated and seemingly sporadic cases of unusual illness. Given the number of daily visitors in the AREA, the number of spectators at the concert, and the general mobility of modern society, several cases of plague appeared due to secondary transmission and in other parts of the country.

Plague, released within a dense population, achieved predictable and catastrophic results, challenging the response community with overwhelming numbers of sick and dying. The disruptions illustrated concerns in several areas, including how to assemble the response to bioterrorism, and addressing long-term recovery issues (e.g., business resumption, site remediation, public relations).

PRINCIPAL FINDINGS

Based on the experience of BWTTX – STATE, what assumptions can be made regarding a bioterrorist incident? A bioterrorist incident will likely be characterized by no notice or the absence of an identifiable threat (because the incident will be temporally and geographically dispersed and the public health emergency will escalate without the traditional 9-1-1 call reporting a single major incident at a specific location). As a result, identification of the point of release would be difficult and delayed and, in fact, may never occur. A bioterrorist incident will create a major public health crisis and emergency healthcare will take priority over all other response/recovery activities. Federal resources may not arrive until 12 to 36 hours after notification. Based on these characteristics, the foundation of the community’s planning efforts would benefit from a focus on incident recognition, rapid response/mobilization, and integration of mutual-aid/Federal assets.

Planning for a bioterrorist incident should center on several distinct areas of emphasis such as the following:

- **Surveillance.** Aggregation and continuous analysis of data from public health monitoring and surveillance reporting mechanisms.
- **Treatment, Prophylaxis, and Patient Care.** Procedures to assist healthcare providers identify an unusual public health emergency, advancing the ability to provide rapid diagnosis and antimicrobial or antitoxin therapy.
- **Logistics.** Integration and coordination of mutual aid from Federal, State, and local agencies as well as any volunteers and donated goods from the community.
- **Communications and Technical Support.** Integrating all levels and types of communication from Federal, State, and local agencies as well as subject matter experts (SMEs) and the numbers of well-wishers who show up onscene as “volunteer” experts.

In summary, identifying an incident, responding rapidly and effectively, and integrating additional response resources enables the CITY community to effectively influence the outcome of a bioterrorist incident. The imperative to counter bioterrorism through a comprehensive planning effort is real—bioterrorism combines *psychological destructiveness* with *readily available* disease organisms. Although few terrorist groups have yet shown an interest in inflicting catastrophic mass infection, there is no reason to be complacent about their restraint. Further, no technological hurdle should be considered insurmountable, especially because of the 2001 anthrax cases. Changing societal trends, the evolving nature of terrorism, and increased access to information, expertise, and technology appear to be increasing the potential use of biological weapons, specifically. Although the threat or the known or suspected presence of an organization with the ability and motive to inflict harm may be amorphous, our vulnerability is clear and warrants careful and deliberate corrective actions.

The FALL BWTTX demonstrated that responding to a WMD event is a shared responsibility. By participating in the exercise, attendees began building awareness and understanding regarding the critical issues and tremendous cooperative effort that would be required when responding to a large-scale bioterrorism incident. Fortunately, exercise participation and enthusiasm were excellent; however, continued dialogue is essential. Building on this initial response effort, through additional workshops, meetings and exercises, may be critical. Follow-on efforts could focus on the integration of planning and training in addition to achieving a common understanding of roles, issues, priorities, and coordination mechanisms.

This section is an overview of the principal exercise findings, particularly as they relate to overarching issues. Subsequent sections fully explore issues specifically identified at each table.

Staffing

Discussion. Because the incident occurred at a large event at the INDOOR ARENA, participants agreed many personnel who would play key roles in a response might have been in attendance. This issue is not unique to THE CITY because many jurisdictions around the country would face a similar problem. Participants also discussed hypothetical situations regarding what would happen if a major public figure, such as the mayor, were to be infected with the biological agent. The discussion led to some frightening realizations, but the group agreed that anything was possible in this type of situation.

Fire department and Emergency Medical Services (EMS) participants advised that their regular call volume, combined with an incident of this nature, would quickly overwhelm on-duty first responders. Participants felt mutual-aid resources from neighboring jurisdictions would initially supplement their staffing until callback and training units could be put into service. They discussed the possibility of obtaining the medical director's approval for a crisis-level response, which involves having dispatch assist in screening 9-1-1 calls to limit EMS response to advanced life support (ALS) emergencies. Participants also identified the likelihood of responders being out of service for indefinite periods because of lengthy investigations, the lack of relief, and overwhelmed area hospitals and medical care facilities as another topic of concern. Using hospital and private service ambulances as supplemental transport units was also considered.

Calling in off-duty staff, canceling elective admissions, making requests to temporary employee agencies for help, and calling retired staff members to assist were steps all hospitals said they would initiate to cope with the crisis. Some hospitals also said they would consider turning to nursing schools, schools of allied health, and medical schools for additional staff support. As one participant pointed out, hospitals may find themselves asking family members to assist with the care of their loved ones in hallways, large storage areas, and anywhere else a sick person can be placed. There was agreement that using alternate care facilities (ACFs) would be helpful in decompressing patient volume at the hospitals, particularly asymptomatic patients. Regardless, participants agreed that staffing issues would continue growing as the incident proceeds. Fatigue will also be a major problem despite hospital and EMS administrators' attempts to manage their personnel by rotating shifts and work locations.

Using solicited and unsolicited volunteers was also discussed. It remains unclear what level of “volunteerism” will be seen in an extensive—or contagious—outbreak. Nonetheless, it was agreed that hospitals need to address this issue in their planning and put into place the necessary steps to appropriately protect those who do volunteer (e.g., providing prophylactic medications, gloves, gowns). Medical response participants also discussed the need for more community-based planning for soliciting and coordinating the use of volunteer healthcare professionals from the local area and beyond.

Absenteeism and line-of-duty injury and illness, or concerns about family members, will further deplete overworked staffs and affect the mental health of the workforce. Although internal mental health support mechanisms exist (e.g., critical incident stress management [CISM], social services, chaplains), some participants expressed concern that these resources will not be sufficient to assist the victims, their families, or the hospital staff. Hence, it was agreed that Federal assistance would be of great importance.

Recommendation. Realizing that staffing may be a problem in any WMD incident, the community MEDICAL RESPONSE SYSTEM (MRS) is taking steps to identify personnel that can be prequalified to perform in various response positions. Additionally, area hospitals are part of an ongoing effort to establish mutual-aid agreements between facilities to allow the sharing of resources and personnel during incidents like the one depicted in this scenario.

As discussion ensued about the mayor or other officials being affected, all participants expressed remorse but were confident that the city’s continuity of government plans would allow a continued and substantial senior-level presence in city offices.

Participants thought the use of mutual-aid units would only be a temporary solution because they would also be inundated with calls from the incident. Players identified a need for plans beyond their existing mutual-aid agreements and noted the advantages of having contingency plans developed for all area public safety agencies. As a result, the formation of a planning group that comprises public service agency representatives would provide an opportunity to develop comprehensive plans establishing procedures for mitigating a WMD attack. The plan would also be helpful in eliminating delays in obtaining additional resources and opening additional channels of communication among the agencies during the response. Public service agencies, hospitals, medical facilities, and private ambulance services could develop coordinated plans addressing additional issues. These issues could include, but are not limited to, the use of hospital and private service ambulances to increase the number of transport units, the release of patients to a triage area to facilitate units’ return to service, and more efficient security measures for hospitals and medical facilities. The security measures could include limiting facility entrances and exits, extending shifts and calling in additional security personnel, and assigning security personnel to exterior locations for parking and perimeter security.

In the event of a WMD attack, media coverage would quickly escalate and fan public concerns. To minimize excess absenteeism, participants thought their personnel should be kept informed with as many facts as possible regarding the situation. This would help override the panic

created by the media. They recognized that decreasing personnel concerns, with up-to-date and continuing information, would alleviate many fears and help maintain staffing levels.

EMS and healthcare facilities should review their plans to ensure they adequately address the staffing issues likely to be seen in this type of incident. Hospitals should anticipate staffing problems related to absenteeism (including those created by National Guard mobilization) and line-of-duty illness and death. Steps should be taken proactively to address staff concerns that would increase the likelihood of not reporting to work. These issues include telephone access for personal calls, daycare provisions for children and senior citizens, and sleeping quarters. Hospitals should also take steps to minimize excessive fatigue and poor eating and sleeping habits of staff during the incident. In addition, existing plans for the provision of mental health support to patients, their families, the hospital staff, and all responders should be carefully reviewed to keep personnel responding safely and effectively. The methods to request and use Federal, State, and regional mental health resource assistance should be addressed. Because similar support will most likely be needed by other response agencies, the problems created by multiple simultaneous requests also need to be addressed in the plan and coordinated with emergency management.

Using solicited and unsolicited volunteers should be included in the response plan. Issues such as credentialing, roles and responsibilities, work locations, supervision, liability, and personal protection should be described. How to handle the problems associated with too many people volunteering should also be described. If possible, volunteer rosters similar to those used for bad weather emergencies should be developed for use during this type of emergency.

Public Information

Discussion. The scenario initially presented the community with a large number of sick people who had similar symptoms, but no one had ascertained the cause until the problem became widespread. Because of these developments, participants discussed what types of misinformation would be spread both from the public and as the result of media speculation. EOC/policy participants recognized the need for getting timely and accurate information to the public. They agreed that during an incident such as the scenario, misinformation would be rampant and community officials would be faced with the overwhelming task of managing a public information crisis. Much of the discussion centered on what information to release because the JIC group was concurrently discussing strategies for the dissemination.

Participants recognized that the ability to consistently provide the public with timely, accurate, and credible information about the incident would be of paramount importance. Methods to inform and educate the public will include holding timely press conferences and news media reports and distributing information sheets. However, concerns were voiced about how “the system” will operate in creating and coordinating these initiatives. It was understood that the EOC/JIC will take the lead in meeting this need, but discussion revealed that hospitals could benefit from a better understanding of how the EOC/JIC will operate in this type of situation and what their role will be in supporting the incident response.

Recommendation. The newly established Public Information Network (PIN) in THE STATE has been tasked with managing public information during incidents such as the one depicted in the scenario. However, public officials from the CITY AND THE CITY EOC staff in particular, should be able to formulate statements and determine what information goes out to the public. Because the area comprises several communities, including the CITY, a joint effort between all communities can maintain “one voice” that ensures the dissemination of accurate and timely information.

Healthcare facilities, emergency management, and public health officials should continue to review current plans for sharing information with the public and should ensure their suitability for a biological incident. Part of the public information response could include creating patient information sheets for each of the WMD agents using available resources (e.g., Centers for Disease Control and Prevention [CDC] information recommendations). These sheets should be preprinted and a distribution plan developed. Consideration should also be given to implementing a public education campaign on the various WMD agents, how they might present, and what to do if a biological incident occurs.

Additionally, each hospital’s command staff and public information officer (PIO) should be briefed on the operation of a JIC and how the JIC and the hospitals will support one another.

Protecting Response Staff

Discussion. Once a developing pandemic illness or bioterrorism event is recognized, it will be crucial that response personnel and hospital staff initiate proper safety precautions to prevent the potential spread of the illness. To be effective, early recognition and notification must be made, and needed equipment and supplies must be available in ample quantities. Medical response participants raised questions regarding who determines when special precautions are needed and how those guidelines will be conveyed in a timely manner. Participants emphasized a response plan that outlines the decisionmaking process, and preliminary response steps should be available for supervisory personnel to implement.

In this scenario, participants thought universal precautions would be used at a minimum, but if there were concerns about a contagious outbreak (e.g., plague or smallpox), masks and gowns would be needed. Concerns were also expressed that, because there are limited on-hand quantities of medical supplies, it will not be long before inventories of items such as gloves, masks, and gowns are exhausted. Because many hospitals use common vendors to purchase medical equipment and supplies, obtaining assistance from other sources will be necessary. EMS expressed a concern that their personnel would not have access to needed PPE because they tend to restock from hospital inventories.

There was also discussion about the need to potentially prophylax responders. Currently, response agencies do not have a plan for how to acquire and distribute a bulk cache of antibiotics to their staff if needed. A question also arose about whether the hospitals should be providing

medicine to the family members of staff. Participants thought although there would be additional expense involved with providing families with medication, it would be an important way to keep staff members focused on their job and willing to work. There was agreement that the absence of a medication acquisition and distribution plan needed to be addressed by all health-care facilities as well as by the public health and public safety communities.

Recommendation. The EMS, public health, and medical communities should continue working with the appropriate State and local health and emergency management agencies to develop a regional response plan for a biological agent-caused outbreak. This plan should address areas such as the following:

- How an outbreak will be recognized
- Who determines the level of PPE needed
- Emergency restocking of critical items
- Types and quantities of PPE to be available for use
- Information sharing between EMS, the hospitals, and public health
- Prophylaxis of staff as necessary, highlighting the following:
 - Acquisition of needed medications
 - Process for administering/distributing the medications
 - Whether and how to medicate the staff members' families
 - Dosing requirements/schedules
 - Documentation

In addition, the local medical/hospital communities should consider alternate medication and medical supply acquisition contingencies, including alternate vendors, etc.

Summary

Bioterrorism will unfold as a major public health emergency, significantly affecting the public and private sectors. A comprehensive program of education, awareness, surveillance, monitoring, and notification is necessary especially for the medical and first response communities to mount a successful response to bioterrorism.

Surveillance is the first line of defense. In all probability, a biological attack will be recognized initially as a suspected disease outbreak and the first measure of an effective response will emphasize rapid diagnosis. Effective surveillance programs can detect unusual patterns of morbidity or death, determine the cause, identify the organism involved, and determine the source.

Without the continued support of first response and emergency department (ED) personnel following a biological attack of this magnitude, CITY would not be able to mitigate the inevitable circumstances evolving or offer protection and support to the citizens of the community. Effective plans need to be in place before any attack of this nature. This can only be achieved through a cooperative effort of all agencies and organizations involved. There are a large number of

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resources available in the CITY area from Federal, State, and local agencies as well as private businesses and nongovernment organizations. A continuous reassessment of plans and policies should help to identify resources.

EMERGENCY OPERATIONS CENTER/POLICY

Epidemiological Tracking

Discussion. EOC staff recognized that many agencies would be involved in the response effort to a bioterrorist attack on the city. However, their mission was clear: coordinate the response and fulfill all requests for supplementary equipment, personnel, and services that were beyond the scope of local resources. Several additional aspects of the response were of interest to the EOC staff, but one in particular was the tracking of epidemiological data and patient status.

As more and more cases of similar illnesses present at area hospitals, the EOC would need to notify State and county agencies to begin coordinating additional resources for THE city. The question that arose during the discussion was: at what point are these notifications made? Participants stated that the policy for notifying other agencies of a smallpox case was after one person contracted the disease. In this scenario however, participants would eventually learn that the agent causing the illness was *Yersinia pestis*. Further discussion revealed there was no established procedure that dictated when specific notifications would be made.

Another issue was the tracking of patients by hospital personnel and other response agencies. The EOC staff was not confident the response community had procedures that were coordinated and redundant. For example, the initial triage tag that would be issued to patients by EMS personnel would most likely not contain the same patient-tracking information as the hospitals would eventually use.

Recommendation. Participants decided that each situation would require a notification “threshold,” dictating how many cases needed to present before it was deemed necessary to begin external notifications. Future discussion will be held to determine what thresholds would be appropriate for each type of situation.

Participants recommended that the tracking of patient information begin with EMS and follow similar systems throughout the treatment process. The availability of systems that would accommodate the local need was discussed at great length, particularly the system used by response agencies in the State of California (<http://www.triagetags.com>). Initial triage tags for WMD incidents contain a barcode that is scanned into a database containing information about the patients and their conditions. Participants were very interested in such a system and agreed that access would benefit several agencies (i.e., public health, EOC, law enforcement). City planners committed to researching funding for an adequate tracking system and local information technology officials would be called on as SMEs to assist in the development and equipment acquisition.

Alternate Treatment Sites

Discussion. All participants were aware that the hospitals in THE CITY would be faced with a situation where they did not have enough bed space to accommodate all patients of a WMD attack. Furthermore, the need for alternate treatment facilities, or areas to house external resources such as State Community Emergency Response Teams (CERTs) or National Medical Response Teams (NMRTs) would arise very quickly. Naturally, the American Red Cross representative in the EOC stated they would assist in the selection and establishment of alternate treatment sites and shelters during the incident. However, an additional concern developed that, because the agent was contagious, any facilities used for patients may need special attention and isolation procedures.

Recommendation. A representative from the city's DEPARTMENT OF COMMUNITY SERVICES stated the city has 17 community centers that could be considered, once they are deemed adequate, as alternate treatment sites. Additionally, the American Red Cross maintains a comprehensive list of shelters that are usually dedicated to sheltering displaced persons during an emergency. These shelters, which are mostly schools or other buildings, were suggested as alternate treatment sites during a WMD terrorism attack on THE CITY.

Private Sector Interface

Discussion. Participants commented that the scenario involved some private sector resources such as the INDOOR ARENA. Additionally, many businesses and a sizeable portion of the CITY area had the potential to be affected by virtue of the size of the crowd. A biological attack may not present the type of hazard that warrants an evacuation of the area; however, there was a consensus that the private sector within THE CITY would be severely affected.

One participant noted that there is little interaction between public officials/public safety organizations and private sector organizations. The potential impact on businesses, specifically major corporations headquartered in THE CITY, would result in major revenue problems for not only those companies, but also the city.

Recommendation. The city has generated interest among a few local businesses to be involved in emergency drills and planning. There could be a more concerted effort to involve private sector agencies in THE CITY in planning for a WMD response. Continuity of Operations (COOP) is a major focus of many corporations throughout the country, and many have even participated in full-scale exercises with scenarios that would affect them. An obvious benefit of involving private sector agencies in emergency planning would be enhanced coordination during an actual emergency, as well as a potential source of additional resources.

PUBLIC SAFETY

PPE

Discussion. Participants said the need for PPE could not be overstated. Players believed responders initially would not be using effective PPE for a WMD event. They expected that only universal precautions would be used until the increase of illnesses was questioned. Participants thought the continuous increase might trigger the use of additional PPE including masks and gowns. Overall, however, participants were concerned that by the time the incident was recognized to be a WMD event, responders would have already become infected because of lack of effective PPE. They would have subsequently exposed their family members, coworkers, and others throughout their communities.

Recommendation. Early recognition is the key to controlling a bioterrorist attack. Incubation periods can vary from 12 hours to 26 days. The incubation period for the plague is 1 to 3 days. This hinders the identification of the situation as a bioterrorist attack. The incubation period also facilitates the agent's spread as those exposed unknowingly go about their routines.

Regular reviews of PPE procedures and provider training assist in keeping responders in the highest level of protection available. Establishing a protocol mandating the use of PPE when an unknown outbreak is suspected is also a consideration. As soon as any speculation is present regarding the possibility of a contagious outbreak, increasing PPE levels is critical to all. Participants recognized the coordination of public health, hospital, and public safety providers as an invaluable tool in monitoring patients and early detection of a WMD event. A source to assist in determining local needs is the CDC's *Interim Recommendation for the Selection and Use of Personal Protective Clothing and Respirators Against Biological Agents*, which can be found at <http://www.cdc.gov/niosh>. An additional source can be found in the U.S. Department of Justice, (DOJ), National Institute of Justice (NIJ) publication, *Guide for Selecting Personal Protective Equipment for Emergency First Responders*, available at <http://www.ojp.usdoj.gov/nij/pubs.htm>.

Prophylaxis and Treatment

Discussion. Public safety participants unanimously agreed that their first priority would be to protect their personnel. Otherwise, responders would not be able to perform their duties. Another concern would be protecting responders' families. Participants acknowledged that responders would not be willing to report for duty if their families were not protected, contributing to higher levels of absenteeism. Protecting responders' families would ease their minds, reduce stress and anxiety levels, contribute to higher levels of job performance, and increase willingness to work.

However, administering prophylaxis presents additional challenges. One of these areas was the need for an antibiotic supply beyond the levels on hand. Limited antibiotic supplies can cause

difficult triage decisions and may precipitate a hostile environment. The guidance and prioritization needed for issuance of prophylaxis and treatment, including for first responders, was another issue. As with limited supplies of antibiotics, without protocols for issuance, the possibility for public unrest is greatly increased. Secure storage facilities for the antibiotics and distribution points are yet another consideration.

Recommendation. Participants commendably identified that protection of the providers and their families would determine the success of the overall response. Players noted the MRS cache and National Pharmaceutical Stockpile (NPS) push pack comprise additional antibiotic supplies to assist in supplementing current pharmacy capabilities. Moreover, the finalization of the CITY's EMS policy for treatment of responders and families during biological incidents will establish protocols and limit confusion and anxieties in a WMD event. This would also be beneficial to share with other local agencies to assist in their WMD incident planning. Participants advised they were establishing a secure site to house additional supplies, including PPE, pharmaceuticals, medical supplies, respirators, and other equipment relevant for use in a bioterrorist attack, should the need arise. They realized surveillance and security of the site would be necessary to protect critical supplies from theft and misuse.

Investigation

Discussion. An investigation of this enormity would require extensive resources and would be coordinated by the Federal Bureau of Investigation (FBI). Bioterrorist attacks are relatively new to local law enforcement and there is no clear delineation of responsibilities at this time. Law enforcement participants expressed that their primary responsibilities would be assisting with hospital security and traffic control. However, other functional groups discussed the need for law enforcement and other public safety personnel to assist in all aspects of a criminal and epidemiological investigation.

Recommendation. Determining roles and responsibilities for Federal, State, and local public safety and public health agencies is critical in limiting duplication and conducting thorough investigations. In the event of a bioterrorist attack, the FBI will be the lead Federal agency for the investigation; however, local law enforcement remains an invaluable source of information to other investigating agencies. Their knowledge of the area and rapport with community members can be used to facilitate more effective canvassing, evidence collection, and interviewing the locals affected by the agent. Oftentimes, the epidemiological issues are overlooked until well into an incident. Giving additional consideration to the early implementation of the epidemiological investigation limits duplication of efforts and benefits the overall outcome. A source to assist in joint epidemiological/criminal investigations can be found in the U.S. Army Soldier and Biological Chemical Command (SBCCOM) publication, *Criminal and Epidemiological Investigation Report Guideline* (December 2000). This source may also be found at <http://hld.sbccom.army.mil/ip>.

EMERGENCY SUPPORT FUNCTION #8

Medical Bioterrorism Response Plan

Discussion. Participants concurred that each healthcare facility should have a response plan for a pandemic illness/bioterrorism incident. Few healthcare facilities, however, indicated they have such a plan at this point. The implications of the recent Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requirement mandating the use of an Incident Management System (IMS) were also discussed, including the expectation that each hospital's IMS must integrate into the local community response system. It was agreed that the development of a biological planning template that each hospital could use would help ensure needed standardization and creation of true system response. Participants thought the plan should address a number of important topics including implementation criteria, integration with public health, law enforcement, and emergency management, and patient assessment and clinical management.

Recommendation. A regional pandemic illness/bioterrorism planning template should be developed. The plan should address the following:

- Medical surveillance procedures
- Epidemiological investigation procedures (i.e., integration with law enforcement and public health)
- Notification procedures
- PPE use
- Patient assessment procedures
- Laboratory assessment procedures
- Laboratory specimen transfer procedures
- Treatment options
- Clinical care management in austere conditions
- Equipment, pharmaceutical, and supply acquisition
- Prophylactic procedures (patient, family, and staff)
- Operation of ACFs
- Use and operation of mass medication centers
- Mental health support (patients, family, and staff)
- Mass fatality management

- Documentation requirements (i.e., administrative, clinical, financial)
- Recovery procedures

Suggested sources of information for the creation of such plans include the CDC/American Association of Infection Control Practitioners (AAICP) Bioterrorism Response Plan; *Expanding Local Healthcare Structure in a Mass Casualty Terrorism Incident* and *Improving Local and State Agency Response to Terrorist Incidents Involving Biological Weapons*, both by SBCCOM; and the National Association of County and City Health Officials (NACCHO) *Elements of Effective Bioterrorism Preparedness*.

Finally, the CITY medical, public health, and emergency management community should work with their State counterparts to ensure the regional and institutional plans being written will integrate seamlessly into their State emergency response plans.

Medical Surveillance

Discussion. Participants noted that the early recognition of a natural or deliberate illness outbreak is vital to minimizing morbidity and mortality. Participants thought that increasing 9-1-1 calls for similar complaints, deaths occurring to previously healthy persons, and the admission of growing numbers of patients with similar complaints would be clues that something untoward is happening. The clinical intuition of experienced ED staff is essential in recognizing that something troublesome is occurring. Although hospital infection control practitioners (ICPs) regularly evaluate admission data and discuss unusual occurrences among themselves, there is no formal comprehensive “active surveillance” system in place. (Suspicious or not easily explained clinical or laboratory results are usually discussed with the on-call health department official.) As a result, there was agreement that a more comprehensive, year-round “active” medical surveillance system is desirable. Monitoring EMS call data, syndromic data, and school absenteeism, as well as accelerating notification procedures, were elements participants thought were important to an enhanced active surveillance program. Once a suspicious event is recognized, healthcare facilities and local public health officials are expecting additional assistance from State Epidemiological Information Services personnel.

Recommendation. The CITY medical and public health communities should continue working closely together along with State health and emergency management officials to formally develop a comprehensive, computer-based sentinel event surveillance system. Each hospital and the EMS system can submit pertinent data elements to the HEALTH DEPARTMENT. Consideration should be given to hourly and/or daily analysis of the following:

- EMS run data (specific and chief-complaint based)
- ED syndromic data
- Critical care admissions

- Pharmacy sales of selected over-the-counter upper respiratory/cold and gastrointestinal (GI) medications
- Sudden deaths of previously healthy individuals
- Absenteeism at schools and selected work locations

The possibility of combining a hospital diversion monitoring system and active surveillance system should continue to be explored as well.

A concerted effort to regularly provide standardized instruction on bioterrorism-related topics to prehospital, hospital, and other members of the medical community should be implemented to accelerate recognition and proper response. National instructional material such as that found from the CDC and the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) should be used. Additional recently released material can be found on <http://www.bepast.com> and would be beneficial to distribute to all frontline response personnel.

Pathogen Identification

Discussion. Participants recognized that no common understanding exists regarding current laboratory capabilities at the State and local levels. In addition, there was some uncertainty about the proper procedures to be followed in transferring specimens to Federal and State laboratories. It is expected that specimens will be sent to the CDC, the FBI laboratory in Quantico, VA, and USAMRIID, but specifics on how that is to be done were not well understood. Participants also pointed out that the volume of testing to be done would exceed many facilities' capabilities and would require supplementation. Because of the criminal nature of this event, some questions arose about chain-of-custody procedures to be followed. It was suggested that the veterinary laboratory capability in the area could be helpful for human testing if needed.

Recommendation. The health department and emergency management agency should continue conducting an annual inventory/evaluation of local medical diagnostic laboratory capability. This assessment should include evaluating hospital, university, veterinary, and private laboratories. Assessment results should be maintained at the EOC and health department command post. Hospital and public health officials should continue developing a regional plan for diagnostic testing using available Federal, State, and local laboratory resources. Timely and accurate communication of the results to those who need them should also be addressed in the plan.

Finally, hospital and public health officials should meet with law enforcement personnel to address medico-legal implications of laboratory testing during a bioterrorism incident. Education should be provided to appropriate staff members on the plan to ensure proper compliance.

Hospital Security Issues

Discussion. Participants agreed that as the crowds of victims waiting to be seen at hospitals grow, the risk of violence increases, as will parking and traffic problems. It was thought that hospital security staffs were insufficient in number and training to handle all these problems. Thus, participants said assistance from local police would be requested. However, few hospitals have met with police officials to plan for this need, nor do their disaster plans address how they would integrate law enforcement into their operations and command structure.

Recommendation. Hospitals should evaluate the security portion of their disaster plans and include using local law enforcement if necessary. Hospital officials should meet with local law enforcement command staff to discuss what assistance will likely be requested and how it will be integrated into hospital operations and the IMS, including the need for extended lock-down procedures, staff and volunteer credentialing, PPE for security staff, auxiliary parking sites, and precautions necessary for an extended contagious outbreak.

Resource Acquisition and Management

Discussion. In a bioterrorism incident, a problem that will become more severe rapidly will be the lack of needed staff, beds, ventilators, and medical supplies. Medications will also be quickly exhausted. Participants stated they would use their everyday vendors to meet these needs but additional assistance would probably be needed. Until the needed items arrive, some difficult decisions will be made on how best to use the on-hand resources. Because this is likely to become a regional problem, participants thought there may come a point when, in lieu of individual physician or hospital decisions, State or local EOCs will issue resource use guidelines. In addition, some nontraditional solutions will need to be implemented, such as active family assistance in caring for their loved ones and recycling disposable items.

Some confusion existed about how hospitals would seek assistance in meeting their needs, however. Consequently, the potential benefits of hospital system assistance and a county hospital mutual-aid memorandum of understanding (MOU) were discussed, as was the effective incorporation of critical Federal and State assistance. A broad array of Federal and State entities would participate in any response to a bioterrorist incident and they would be requested through State and local EOCs. However, some participants admitted they were not adequately familiar with how their agency or facility should communicate their needs to the EOC. The assisting role of the Federal Government's ESF #8 – Health and Medical Services was also discussed, and participants thought having EMS and hospital representation at the State and county EOC to assist ESF #8 personnel would be an important factor in having their resource needs met in a timely and effective manner. The CITY MRS, once it becomes fully operational, was also perceived to be helpful in addressing some of these resource issues.

Participants noted plans are being developed for the local stockpiling of a cache of antibiotics for community use. Several participants were familiar with the NPS, and the various medications and medical equipment inventory it contains. Plans for how it will be acquired, reorganized, and

distributed have yet to be developed but the planning effort will be under way by THE CITY'S MRS in the near future. Some participants suggested a closer working relationship should be established with area pharmacies and their distributors. One participant suggested that consideration should be given to investigating whether veterinary medications can be used in humans during a public health emergency.

Recommendation. Each hospital should possess the capability to quickly determine their on-hand inventory of medications and other vital treatment resources. Local health departments and emergency management should maintain a general idea of available on-hand medications and take the steps necessary to expeditiously determine exact quantities once an outbreak occurs. THE CITY hospitals and EMS should work with the health departments and emergency management to develop a medication acquisition and distribution plan using the MRS cache (once it arrives), and other State, regional, and local resources. These resources should include local pharmacies, vendors, clinics, and research facilities. Moreover, a determination should be made by local health officials of the advisability of using medications intended for animals on humans. If deemed appropriate (albeit, last resort) acquisition plans should include contacting area veterinarians and State veterinary schools.

In addition, State and local planning should continue including familiarization with the NPS and the issues related to its arrival. Members of the medical and public health community, along with public safety, should be briefed on the NPS plan once has been completed and their role, if any, in assisting with reorganizing and distributing it.

Finally, resupply plans should clarify communication and documentation practices to be followed and the role to be played by the State/local EOCs in assisting EMS and healthcare facilities with their resource needs.

Patient Care

Discussion. A bioterrorism event such as that in the scenario will pose significant assessment and treatment challenges for EMS and each of the healthcare facilities. Medical response participants agreed about the importance of standardizing patient evaluation and treatment as a means of optimizing care and providing insulation against public criticism and lawsuits. However, there are no standardized protocols in place to use. Although internal expertise such as ICPs, internists, and pathologists will be consulted rapidly for advice, some hospitals admitted they have limited clinicians on staff who would know how to handle this situation. As a result, facilities would also seek early assistance from State and local health departments and/or the CDC for guidance.

ICPs in the group thought they could use the biological planning templates written by the CDC/AAICP to develop regionalized protocols that would be sent to each hospital and used as part of their disaster plans. There was strong agreement that the hospitals would be looking to the State and local health departments to provide decisive guidance and leadership early into the outbreak and that daily communication between the various parties to review current data and

discuss needed changes in the response would be of the utmost importance. The importance of this practice has been seen with the anthrax cases in New York City and Washington, DC, as well as the hoaxes seen in other areas of the country. However, there is no communication plan that describes how this important feature of an effective response will be conducted in THE CITY.

Finally, the question of who is responsible for the long-term care of these bioterrorism patients—some of whom may need extended hospitalization and mental health support—arose. The volume of patients may exceed the followup capacity of local physicians, but at the same time, hospital staff cannot remain responsible for patients' indefinite care without further interruption of their normal operations. The transfer of these patients outside the local area was seen as a potential solution, but medical response participants voiced concerns about the existence of a plan at the State or local level for coordinating those transfers.

Recommendation. Hospitals should collaborate with State and local public health officials to develop standardized assessment and clinical management protocols for each of the WMD pathogens. The plans should be annually reviewed and revised as necessary. Before writing the protocols, consideration should be given to searching WMD-related Web pages (e.g., CDC and New York City Department of Health and Mental Hygiene [DOHMH]) for similar efforts undertaken elsewhere in the United States. Once the protocols are devised, they should be distributed in written and computerized formats to each hospital. Training should also be given to hospital and public health personnel on how to use these protocols, including long-term patient clinical management.

Hospitals should discuss further common strategies to manage the patients not related to the incident. Planners should keep in mind the use of emergency centers/walk-in clinics and ACFs that are operated using Federal and State resources.

CITY healthcare facilities should meet with State and local emergency management and public health officials to look at the issues associated with having to provide acute and long-term patient care. In developing a response plan, officials should check with the CDC, the Agency for Toxic Substances and Disease Registry (ATSDR), the National Disaster Medical System (NDMS), and the Centers for Medicare & Medicaid Services (CMS) to determine what assistance they can provide in remedying the identified problems. Meetings should also be held with geriatric, mental health, and pediatric specialists, along with appropriate community representatives to ensure the plan comprehensively meets the variety of patient care issues that will be seen during a pandemic illness/bioterrorism incident.

Fatality Management Plan

Discussion. Although some medical participants were familiar with the current mass fatality plan, concerns were raised about whether it adequately addresses all problems likely to be seen in a bioterrorism incident. Of particular concern was the limited refrigeration capability in the region, determining who receives an autopsy, and how investigative needs will be balanced with

cultural and religious issues in handling the deceased. Participants agreed using Disaster Mortuary Operational Response Teams (DMORTs) would be necessary, but many participants were unfamiliar with the implications, if any, this will have on their operations. Additionally, the Medical Examiner's (ME's) Office expressed concern about the lack of PPE available for its use.

Recommendation. Each hospital should review its mass fatality plan and ensure it addresses the issues this type of incident will raise. Hospitals and healthcare facilities should also work with the COUNTY Medical Examiner (ME), law enforcement personnel, emergency management personnel, and funeral directors to ensure the State/regional mass fatality plan adequately addresses all the response issues this type of incident will create, including using a DMORT. Hospital staff should be briefed on this plan. Finally, the mass fatality plan should be evaluated periodically using a WMD-related incident exercise.

It will be important that the ME's Office is notified when a suspicious incident occurs, and any protection steps being recommended by Federal, State, and local health officials. The ME's Office should work with local emergency management and public health officials to ensure they will have all equipment (including PPE) and supplies necessary for responding to an incident involving contagious and noncontagious pathogens.

Extended Operations and Hospital Recovery

Discussion. Because a biological incident is likely to last for weeks, if not longer, a number of problems related to extended operations were identified by participants. These problems included issues pertaining to staffing, the need for expanded food service, as well as equipment repair and replacement. All facilities thought their current planning needed to be bolstered.

Some participants also voiced concerns about hospital recovery from this type of bioterrorism incident. Cleaning and resupplying the facility would be needed. Providing reassurance to the public that the worst was over and the hospital was back to normal was also identified as an important step for each facility to take. Of great importance would be the assistance of staff members and their dependents through mental and physical recovery, while still providing medical care to patients. The need for mental health support, in particular, was thought to be critical to retaining staff members, and that family members needed to be included in CISM programs and long-term counseling sessions if warranted.

Many participants expressed concern about the specific level of patient information collection and retention needed to receive reimbursement/assistance from insurance agencies and the Federal Government. The hospitals' ability to recover "the costs of doing business" in this incident would be vital to continued operation. Great concern was expressed about what the consequences would be if Federal and State funding were not made available to cover the cost of uncompensated care. Participants thought they needed more information on what funding assistance they could apply for, the documentation required, and timelines to be met.

Recommendation. Each hospital and public safety agency should develop a comprehensive extended operations and recovery plan. This plan should address topics such as the following:

- Short-term and long-term facility maintenance
- Demobilization criteria
- Appropriate disposal of contaminated equipment and supplies
- Provision of enhanced food service capability
- Cleanup and decontamination
- Equipment and materiel resupply
- Staff support
- Submission of risk management paperwork
- Public relations messages to inform the public about the state of the agency/facility to resume normal business
- Handling line-of-duty illness and injury
- Cost recovery documentation
- Publicizing “above and beyond/hero” stories of staff members
- Staff retirements and resignations
- Hiring new staff
- AARs and critiques
- Handling research requests

Required Federal, State, and local documentation (along with required timelines) that will be required for hospitals to submit for financial assistance during and after a pandemic illness/ bioterrorism should be identified now and the necessary planning and training completed to ensure an appropriate response during this type of incident.

Emergency management, public safety, and public health officials should proactively identify recovery issues requiring Federal Government and/or State legislature support (e.g. rule changes and funding). Solutions to these issues should be sought aggressively.

REGIONAL DOMESTIC SECURITY TASK FORCE

Role of the RDSTF

Discussion. One fundamental issue discussed by RDSTF participants was the specific role of the RDSTF. In addition, participants discussed the potential roles they would have once activated, ranging from a communications and information sharing group, to an operational entity that would play a considerable role in the response, or participating in some other capacity. Several participants suggested organizational structures to handle crisis and consequence management already exist, and the current function of the RDSTF appears to be redundant. Several participants suggested inquiring what, specifically, the role of the RDSTF is from the Department of Law Enforcement (DLE).

Recommendation. Participants suggested that before any other actions could take place, the RDSTF must establish its responsibilities and the goals and objectives it seeks to accomplish. In addition, some sort of chain of command was recommended to be established to address roles and responsibilities of RDSTF members. Participants recommended seeking further guidance from the DLE regarding their role in terrorism preparedness and specifically, response to WMD incidents.

The DLE identifies RDSTF responsibilities on its WEB SITE. According to DLE guidelines, the responsibilities include the following:

- Improving THE STATE'S ability to detect and prevent potential terrorist threats.
- Collecting and disseminating intelligence and investigative information.
- Facilitating and promoting ongoing security audits and vulnerability assessments to protect critical infrastructures.
- Coordinating the delivery of training.
- Supporting the purchase of proper equipment for public safety first responders and disaster response teams.
- Improving THE STATE'S response and recovery capabilities.
- Promoting better public awareness of how suspicious incidents may be reported and how to respond should an emergency related to a terrorist threat develop.

Activation and Coordination

Discussion. Participants focused their discussion on when and under what conditions the task force should or would be activated. RDSTF participants discussed the lack of a clear-cut system for activating members in a timely manner. Participants also identified the need to create a

formal procedure for sharing information between county and city agencies, and between counties and cities within the RDSTF.

Recommendation. Participants recommended identifying certain “trigger points” for use when an incident occurs. These “trigger points” would determine when an activation of the RDSTF is necessary. Examples of a “trigger point” would be an alert by the healthcare system regarding a suspicious pattern of illness in patients, or notification to an RDSTF member organization regarding a specific terrorist threat. Once the trigger points are identified, varying levels of response could be established, identifying who should activate and what actions they should take.

Intelligence Gathering and Dissemination

Discussion. The issue of gathering and disseminating sensitive intelligence information was addressed. RDSTF participants discussed what their respective roles in a criminal investigation would be. Because each representative was from a different agency (e.g., emergency management and law enforcement), most agreed their primary missions would be to assist their own jurisdictions because some residents from outside THE CITY would most likely have been in attendance at the concert.

Recommendation. A recommendation was made by a participant whereby the RDSTF would create a subtask force to gather intelligence, or the RDSTF would add liaison resources to the FBI’s Joint Terrorism Task Force (JTTF). Additionally, the possibility of liaison representation at the RDSTF during an incident would be explored.

JOINT INFORMATION CENTER

JIC Activation

Discussion. Participants discussed the role of the JIC in response efforts. They concluded JIC establishment would occur following EOC activation. However, this does not preclude pre-JIC PIO activity. Pre-JIC coordination would rely on the PIN, which connects a variety of essential Federal, State, and local agencies, and allows rapid communication and coordination. In terms of messages, participants agreed that they would need to issue a statement as soon as the possibility of a biological attack existed. The statement could provide the public a limited amount of information in a generic shell.

Following JIC establishment, participants discussed the need to deliver a unified message on a regular basis. However, they were conflicted by the requirements involved and the ability to perform their functions in their respective jurisdictions. Participants realized the need for consistency of message, but thought that could be maintained with a spokesperson for each jurisdiction. Participants strongly expressed the desire to maintain their presence within their jurisdictions. They believed a familiar face would help limit public fear. No one expressed concern that this would adversely affect the JIC. Participants strongly supported the PIN and the reliability of its redundant systems to stay appropriately coordinated, regardless of local spokespersons.

Overall, participants stated that refusal to acknowledge and address public fear would have a negative impact. They unanimously recommended the concerns of the public be fully addressed and that the greatest measures should be taken to avoid the appearance of withholding information. Willfully providing information was viewed as the best method for maintaining credibility with the public.

Recommendation. Before full organization of REGION PIOs in a JIC, participants recommended developing a prescribed, generic message suitable for immediate release to the media. This recommended action was considered a means to fill in the information gap before a JIC statement. The message should be posted on the secure PIN Web site with the representative from the affected jurisdiction responsible for inserting the appropriate information.

Whether using the PIN or JIC, public information plans, strategies, and instructions should be viewed as an operational aspect of a response to an unprecedented and catastrophic bioterrorism event. Items that should be in place before a bioterrorism crisis include the following:

- **A crisis communications action plan** that identifies bioterrorism response scenarios and key issues. This action plan should be reviewed and updated regularly. Participants discussed one strategy they would use is to hold regularly scheduled news conferences so the media would know where they could go to get the best, most up-to-date, and accurate information.

- **An essential personnel list** that is routinely updated and exercised. The list should include work and home telephone numbers, a one-page job summary and one-page biography of key people from the response community and the city who may be called on to speak to and/or be interviewed by the media during a bioterrorism incident.
- **Designated spokesperson(s)** who can speak with authority and in layman's terms to the media during the initial stages of a bioterrorism response. Spokesperson(s) should have at least the basic awareness training on biological agents and public information dissemination techniques. This person(s) should be provided the necessary background information, resources, and training. The training needs to ensure these persons will perform well on camera. Participants recommended developing a system of one message but many messengers.
- **Factsheets** that include basic information on the properties, effects, treatment, duration, and decontamination methods for likely threat agents. Reference materials could be used in the EOC to provide information to the media and the public until more thorough information can be attained.

PIN

Discussion. According to participants, the PIN system is essential for rapid communication and facilitation of REGION PIO coordination. Discussion revealed the necessity for a system that allows the relevant people to quickly communicate. The PIN works on a redundant system of notifications crucial to its functional ability. Additional protocols in development involve using pagers, telephones, and a Web site. Participants thought with a paging system, call list, and a Web site, enough backup capability will exist to ensure the continuity of the message among PIN members. For example, participants decided that when an update to the Web site was made by a member, all should receive a page to view the update. If need be, they could also call each other. Controlling the content and final approval of Web site messages was not discussed. Though, overall discussion revealed a willingness among participants to allow control to pass to whichever jurisdiction's EOC was in charge of the overall crisis.

Recommendation. Participants are to be commended for their actions in developing the PIN. The redundancy of systems will help ensure messages come through should one line of communication fail. Remaining technical issues should be resolved and any new equipment purchased. Participants should continue actively developing PIN protocol ensuring the PIN is used to complement the JIC and its leadership and coordination, not replace it.

Rumor Control

Discussion. The overriding concern of participants was to curtail rumors and misinformation. Discussion initially focused on accurately assessing media reports. Participants believed they were at a disadvantage given the reactive nature of their current plans and procedures. They discussed the need to take an aggressive stance from the beginning and correct inaccurate

information before it was taken as fact. A consensus was reached that an informed public would be less prone to panic. Participants discussed anticipating questions from the public in advance of a biological attack. Rumor control is also a component of efforts to establish and maintain credibility among the public. Participants thought that without the trust of the people, their efforts would go unnoticed.

To enhance public trust, overall communication with non-English speaking residents also concerned participants. Though some Web sites have mirror sites in Spanish, participants noted a need for developing materials and support for the variety of languages spoken in the area. The inability to communicate information could have serious consequences.

Recommendation. Participants agreed they should anticipate concerns and develop an aggressive biological response public information plan. They recommended coordinating with public health officials to develop answers to anticipated questions in advance. Having those answers developed, personnel could be trained in advance. Citing past experience and success, participants recommended using volunteers to staff citizen hotlines. During a number of prior disasters, librarians were used to handle public information telephone lines. Participants thought they could easily handle transition to handle the same task for the scenario presented during the exercise.

To combat a potential sense of helplessness felt by the public, participants recommended providing instructions as an outlet for fear and anxiety. Instructions should be developed in coordination with the public health and medical communities. This would hopefully calm the public and lessen the strain on response efforts. One aggressive strategy recommended was to use an automated calling system that would call homes and play an automated message providing essential information to citizens. Participants also recommended other courses of action they thought would persuade the public to place more credibility in official statements than in media reports. To establish this credibility, participants recommended a specific policy of nondenial. They believed that acknowledgement of possibilities would lead the public to place additional trust in response efforts and improve their credibility.

In handling foreign language concerns, participants recommended contacting universities, consulates, embassies, and law enforcement and intelligence communities for linguistic assistance. Local resorts may also be able to provide some aid because they welcome international guests from a variety of countries.

Return to Normalcy

Discussion. PIO participants expressed the need to determine the end of the incident and to restore public confidence in State and local government agencies. This action is needed to assure the public that the city can, and will, return to normalcy. Participants discussed using a campaign including familiar sports and political figures to promote tourism and an overall sense of normalcy.

Recommendation. PIOs should be commended for identifying themes and strategies to meet the long-term information needs of their community. They clearly recognized the importance of public relations campaigns in reestablishing public confidence in local businesses and government. They also recognized that there was no clear endpoint except that the JIC should remain intact as long as stories continue to be newsworthy about the event. A coordinated effort may be needed for some time focusing on human interest stories, the criminal investigation, central STATE heroes, and victims and their families and how they are coping. Finally, a clear plan will be needed to determine how staffing will be pared down, and how reimbursement for time and resources used during the event will be acquired from Federal and private organizations. Documentation of the whole event will need to be recorded so lessons learned can help create future plans for the CITY community and the country.

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APPENDIX A

PARTICIPANT LIST

Players

American Red Cross
American Red Cross
County Sheriff's Office and Emergency Management
City
City
City
City
City
City
City
City Communications
City Office of Emergency Management
Federal Bureau of Investigation
STATE DEPARTMENT OF HEALTH
STATE Hospital – Infection Control
STATE Hospital Safety
County
Neighborhood Watch
COUNTY
County Corrections
County Fire Rescue
County Fire Rescue
HEALTH DEPARTMENT
HEALTH DEPARTMENT
County Medical Examiner
County Medical Examiner
County EMERGENCY MANAGEMENT
County Sheriff
Fire Department
Fire Department
Police Department
Police Department
Police Department
Police Department
HEALTH DEPARTMENT
MEDICAL CENTER
COUNTY EMERGENCY MANAGEMENT

Players (continued)

County
COUNTY EMERGENCY MANAGEMENT

Facilitators

City Emergency Management
DPP Exercise Team
CITY Fire Department
USDOJ

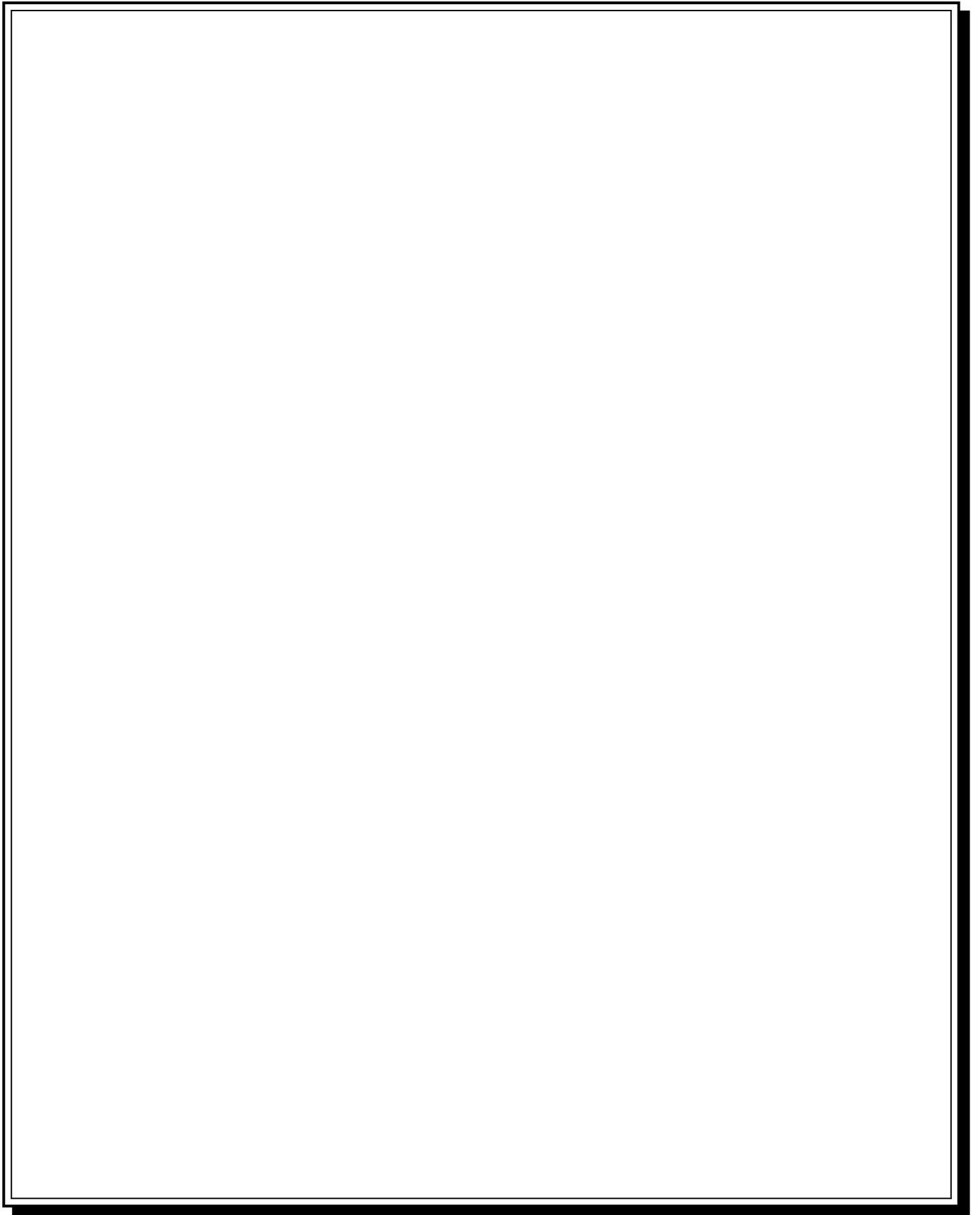
Observers

COUNTY EMERGENCY MANAGEMENT
COUNTY EMERGENCY MANAGEMENT
REGIONAL Rapid Response
CITY COMMUNITY SERVICES
City Office of Communication
Department of Health
Department of Health
Department of Health
Department of Health
COMPANY
COMPANY
STATE ENVIRONMENTAL DEPARTMENT
STATE LAW ENFORCEMENT DEPARTMENT
Government of Quebec
Greater CITY Aviation Authority
Greater CITY Aviation Authority
Media
COMPANY
COMPANY
County
Mayor's Office
Department of Emergency Services
County DEPARTMENT OF HEALTH
CITY Police Department
HOSPITAL

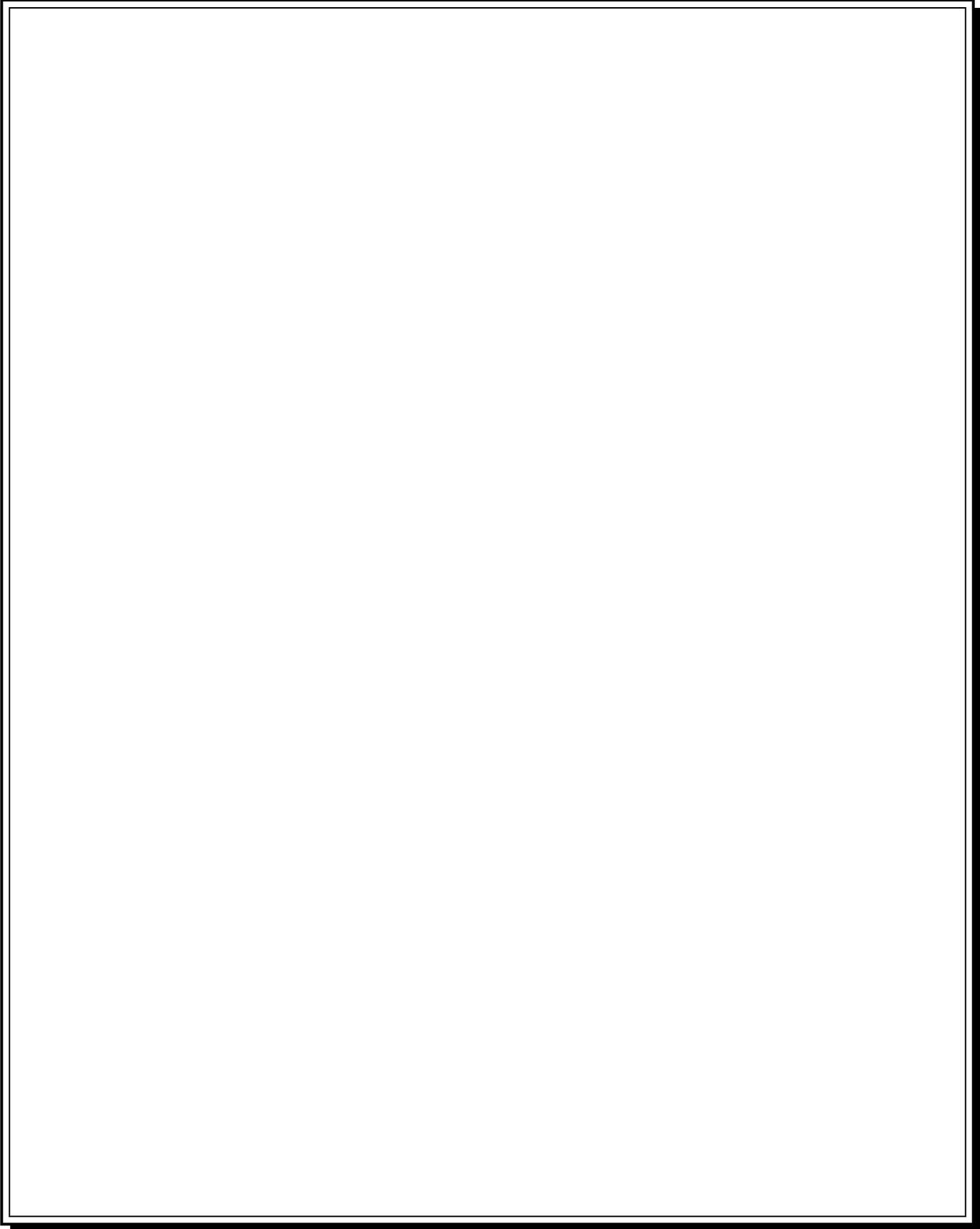
Observers (continued)

ANOTHER County Office of Emergency Management
NEIGHBORING County Emergency Management
COMPANY
COMPANY
COMPANY
COMPANY
COMPANY
COMPANY
COMPANY
LOCAL TOURIST ATTRACTION
LOCAL RADIO STATION

Domestic Preparedness BWTTX



Domestic Preparedness BWTTX



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APPENDIX B CHARACTERISTICS OF A BIOLOGICAL WMD ATTACK

Characteristics of ideal bioterrorism agents are those which are pathogenic for humans, plants, or animals; effective at low dose rates; have a high rate of disease following infection; cause the onset of a severe disease or a severe disability; are capable of dispersal as an aerosol; and have a vaccine or prophylaxis that can be used for protection of the attacker. Biological agents fitting these criteria are typically not contagious (i.e., not easily spread from one person to another) although they are highly infectious to the exposed individual. Biological agents can be employed to kill or incapacitate. Untreated pulmonary anthrax, for example, can have a very high mortality rate, whereas Venezuelan Equine Encephalitis (VEE), an incapacitating agent, has a low-mortality rate.

A bioterrorism attack may be characterized by no or a low attack signature; delayed effects; spatial and temporal dispersion of cases; and difficulty in detection and diagnosis. The covert nature of a bioterrorism attack (“you don’t know when it’s coming and you don’t know when it’s left”) is compounded by the low index of suspicion and general lack of familiarity with bioterrorism agents and indicators among healthcare providers. Misdiagnosis, underreporting, lack of representativeness in reported cases, and inconsistent case definitions add to the difficulty in detection and diagnosis.

The terrorism nexus may be unclear for days or weeks. Time elapsed from exposure to the biological agents until the onset of initial symptoms (for humans) ranges from as few as 3 to 12 hours for the biological toxins; 1 to 14 days for bacteria; to as many as 1 to 17 days for the viruses.

Bioterrorism results in a major public health emergency. The medical response to the threat or use of biological agents may be different depending on whether medical measures are employed prior to exposure, or whether exposure has occurred and/or symptoms are present. If provided before exposure, active immunization or prophylaxis with antibiotics may prevent illness in those exposed. After exposure, active or passive immunization as well as pretreatment with therapeutic antibiotics or antiviral drugs may ameliorate disease symptoms. After onset of illness, only diagnosis of the disease and general or specific treatment are left to medical care providers.

Local public health monitoring and surveillance reporting mechanisms, in the absence of any credible threat as determined by intelligence or law enforcement officials, are the most likely means of initial detection of a public health emergency precipitated by a bioterrorism agent. Indicators of an attack could include the following:

- Infection impossible for region.
- Emergency departments (EDs) reporting increased numbers of patients with the same or similar symptoms.

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- Increased patient admissions (e.g., hospitals and doctors' offices) reporting increased numbers of patients with the same or similar symptoms.
- Respiratory symptoms predominate.
- Delivery vehicle, devices, or intelligence information.
- Increased number of unexplained deaths.
- Increased demand for certain pharmaceuticals.
- Multiple Emergency Medical Services (EMS) calls to the same building.
- Unusual increase in notifiable diseases (i.e., reportable to Federal or State public health officials).
- Increased 9-1-1 call volume.
- Dead animals of multiple types.
- Multiple, simultaneous epidemics.
- Multiresistant pathogens.
- Large epidemic with high illness and death rate.

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APPENDIX C**THE CONSEQUENCES OF BIOTERRORISM**

The danger of bioterrorism should neither be underestimated nor, conversely, overamplified. Although biological weapons can be disseminated to inflict mass casualties, they are not simple to use, as evidenced by multiple failed attempts of the Aum Shinrikyo cult. However, it is important to note that mass dissemination is unnecessary to overwhelm the Nation's infrastructure and psyche. This was apparent in the recent spate of anthrax-laced letters, which resulted in thousands fearing infection and seeking prophylactic antibiotic treatment, and national laboratories being overwhelmed. Additionally, many public buildings and mail handling centers were shut down while authorities determined how to sample and disinfect them.

This event, in which 22 cases were identified and only 5 deaths occurred (as of December 5, 2001),¹ clearly demonstrates the difference between the goals of terrorism and those of warfare. In describing the differences, Dr. Craig Smith, an infectious disease expert at Phoebe Putney Memorial Hospital in Albany, GA, stated that warfare seeks to conquer territories and capture cities; whereas terrorism seeks to "hurt a few people and to scare a lot of people in order to make a point."² Many of the following new issues arose during these recent attacks, which challenged some previous assumptions about bioterrorism:

- Prior to the fall 2001 outbreak, medical scientists thought they understood anthrax and its clinical course. However, based on data gathered in 2001, scientists believe they overestimated the lethality of anthrax. In addition, they are unsure how many spores must be inhaled to contract the disease.
- Communication measures proved inadequate to reassure a frightened public.
- Federal, State, and local governments were unprepared for the close collaboration required in concurrent medical and criminal investigations.
- Laboratories were unexpectedly swamped with samples that had to be tested.

The consequences of a bioterrorism incident are far reaching, including the following:

For Emergency Responders:

- Rapid incident escalation
- Mutual-aid jurisdictions also affected
- Real or perceived hazard to responders
- Need to streamline protocols to accommodate volume of victims
- Difficulty defining the event geographically and temporally
- Lack of personal protective equipment (PPE), hampering operations

¹ Lustig, N., et al., *Update: Investigation of Bioterrorism-Related Anthrax—Connecticut, 2001*, Morbidity and Mortality Weekly Report, Vol. 50, No. 48; 1077-9, Centers for Disease Control and Prevention, December 7, 2001.

² Altman, L.K. and Gina Kolata, *Anthrax Missteps Offer Guide to Fight Next Bioterror Battle*, New York Times, January 6, 2002.

- Unparalleled human remains management requirement
- Need for increased staffing
- High volume of tasks
- Large response “footprint”
- Diffuse nature of incident, confounding delivery of services
- Resupply and replenishment rates that won’t meet demand
- Personnel absences that hinder operations

For Critical Infrastructure:

- Increasing absenteeism
- Need to implement emergency plans and activate alternate operating facilities
- Difficulty maintaining essential operations
- Personnel absences hinder operations
- Extended recovery process may be required
- Closure of business offices, minimized contact with public
- Release of nonessential personnel
- Lack of PPE for key personnel hampers operations
- Mutual-aid partners may also be affected

For Key Supplies:

- Shortages of the following:
 - Pharmaceuticals
 - PPE sets
 - Personal comfort items
 - Essential medical supplies
 - Vaccine
 - Detection and monitoring equipment
- Suspicion on part of the public regarding the water supply
- Runs on groceries, pharmacies, etc.
- Delivery impeded by real or perceived hazard
- Hoarding, blackmarketing, fraud

For Key Production, the Immediate Need for the Following:

- Large quantity of vaccine
- Replenishment of depleted stockpiles
- Monitoring and detection equipment
- Large quantities of pharmaceuticals
- Laboratory supplies
- PPE sets
- Approval process for Investigational New Drugs (INDs)
- Accelerated production—delivery—distribution cycle

- Rapid reallocation and redistribution of production resources

For Leadership:

- Public loses faith in social institutions and government
- Mass media convergence, intensive media scrutiny
- Lack of information, incomplete situation assessment
- Economic impact, extraordinary costs, budgetary shortfalls, loss of revenue
- Extended recovery period
- Loss of political legitimacy
- Inaccurate media reporting, speculation, rumormongering
- Demoralization
- Impact on critical city infrastructure and services
- Need for closure (e.g., apprehension of perpetrators and public memorial ceremonies)

For Recovery:

- Reentry into previously contaminated structures, for starters
- Closure or loss of business and industry

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APPENDIX D

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