VIEWPOINT

ON BIOTERRORISM PREPAREDNESS

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Bioterrorism Preparedness and Local Public Health Agencies: Building Response Capacity

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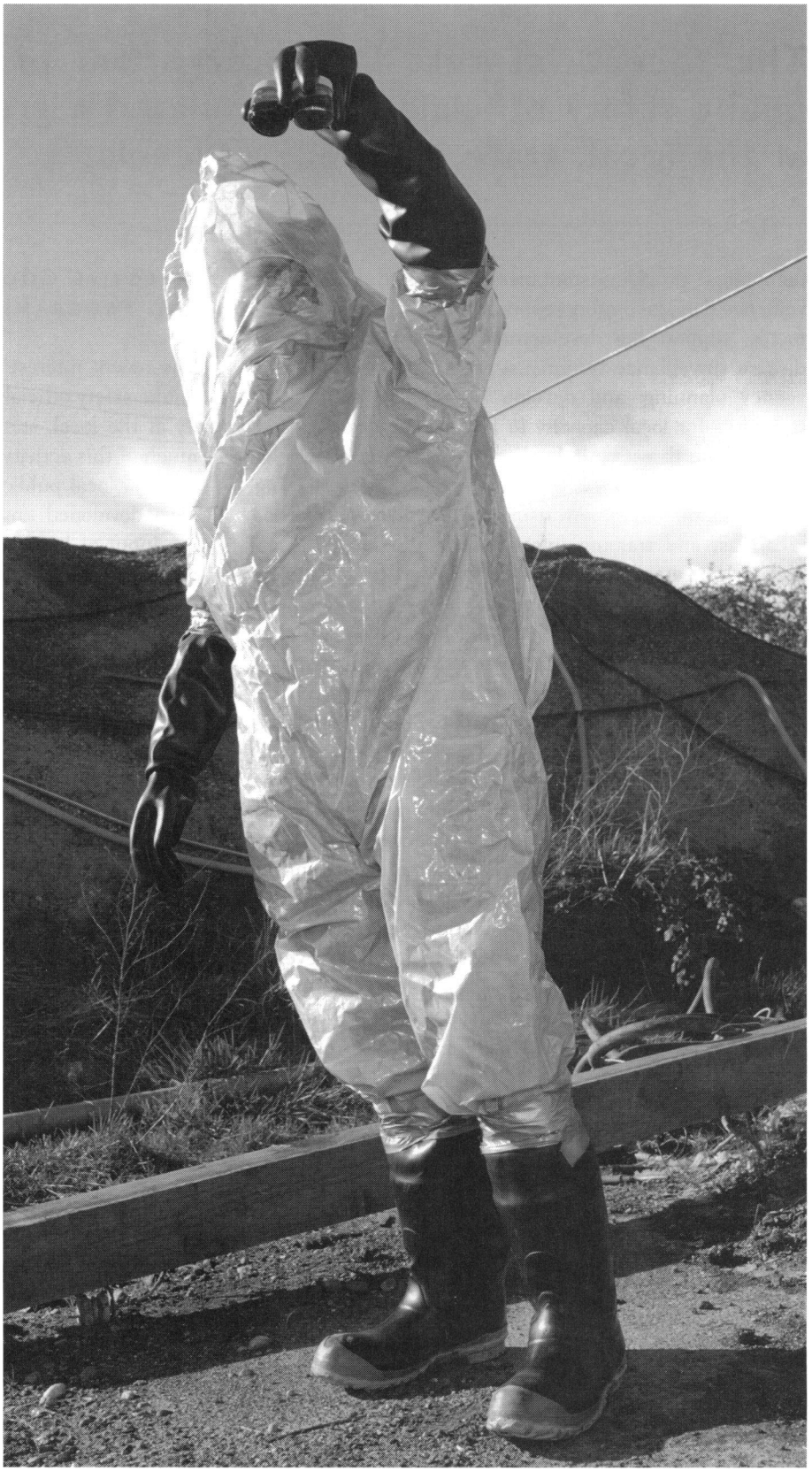
THE THREAT OF BIOTERRORIST ATTACKS HAS LED MANY LOCAL public health agencies to question their capacity to respond to these and other public health emergencies. While the probability of a bioterrorist attack in the United States has not been comprehensively assessed, it is clear that the public health threats facing the nation are growing in complexity and severity.[1–3] The public health response to these threats is multifaceted and may include such diverse activities as: detecting foodborne illnesses associated with the shipment of frozen strawberries inadvertently contaminated with hepatitis A virus; controlling the spread of an unseasonably large outbreak of influenza; reducing water pollution caused by a flood, hurricane, or tornado; minimizing injury from the willful contamination of food products with *Salmonella*; or responding to a terrorist's release of aerosolized *Bacillus anthracis* (anthrax) in a city center. While public health responsibility for responding to these threats differs nationwide, almost all states rely on local public health agencies to identify and respond to disease outbreaks to protect the health of their communities.[4]

Local public health officials serve every day on the front lines in cities, towns, and counties across the country. The National Association of County and City Health Officials (NACCHO) is the national organization representing the nation's almost 3000 local public health agencies.

At the core of NACCHO's bioterrorism program is a belief that the capacities needed by local public health agencies to cope effectively with the consequences of an act of bioterrorism should build on the systems used to respond to disease outbreaks that are not the result of acts of terrorism.[1] The public health response to bioterrorism should allow for the development of a *dual-use* response infrastructure that improves the capacity of local public health agencies to respond to *all hazards* while taking into account the unique and complex challenges a bioterrorist event may present. After all, unless the planned release of a biological agent is announced prior to the event, the cause of an outbreak will be detected only after an epidemiologic investigation is initiated.[5,6] The 1999 outbreak

of West Nile Virus in New York City, which killed three people and sickened 59, is testament to the need for local, state, and federal public health agencies to act quickly and decisively to protect the public's health regardless of the cause of a disease's introduction and spread.[7]

Using bioterrorism initiatives to build the capacity of local public health systems is an efficient and effective use of limited public health resources. However, local public health agencies do not need to add a bioterrorism response system to an already large number of stand-alone reporting systems and response protocols. Instead, NACCHO has advocated for community-wide surveillance systems capable of detecting bioterrorist events as well as other health emergencies. In national forums, Congressional testimony, and in their communities, local public health officials have repeatedly stated that an investment in strengthening overall local public health practice is the best way to address the public health consequences of bioterrorism.[8]



ADVOCACY

NACCHO has used the public interest in bioterrorism to demo strate the pressing need for fiscal support of general preparedness activities of local, state, and federal public health agencies. We are particularly concerned with maintaining support for the Health Alert Network, a Centers for Disease Control and Prevention (CDC) program that will equip and train local public health agencies to use up-to-date and secure electronic communication

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technology; provide instantaneous access to disease surveillance data, laboratory reports, and CDC response protocols; support the development of model community disease surveillance systems; support local public health agency planning: and develop and apply performance standards for local capacity to address bioterrorism and other health threats. Although the primary reason for the Health Alert Network is to develop systems for detecting and responding to bioterrorism, the surveillance, communications, and training infrastructure the Health Alert Network creates will be used to respond to any public health emergency.

To date, Health Alert Network funds have been allocated to 37 state and three urban public health agencies (in Chicago, Los Angeles, and New York City). NACCHO is urging Congress to appropriate $40 million in fiscal year 2001 so that the program can be expanded to all states. A unique feature of the Health Alert Network program is that 85% of all program funding must be used to benefit local public health agency capacity. States have used Health Alert Network funds to electronically link all local public health departments to the state public health agency, to purchase decontamination equipment and equipment for secure communications, and to develop training materials for the public health workforce on bioterrorism and emergency response.

NACCHO also supports CDC's efforts to create a National Electronic Disease Surveillance System (NEDSS), for which the Clinton administration has requested $20 million for FY 2001. As envisioned, NEDSS would replace more than 70 different disease reporting systems currently operated by CDC with a single system. Local and state public health agencies, laboratories, and other partners would transmit disease surveillance information to CDC using highly secure electronic linkages designed to interface with the multiplicity of surveillance and reporting systems used at the local and state level. NEDSS will be designed to complement the advances achieved through the Health Alert Network. Taken together, both are essential capacity building programs for local public health agencies.

EFFECTIVE COORDINATION OF RESOURCES AND PROGRAMS

The recent interest in bioterrorism preparedness among public safety officials has stimulated a great deal of activity at the local, state, and federal levels. Unfortunately, much of this activity has taken place without the involvement of local public health officials. For example, states have developed emergency response protocols without the input of local public health officials, who will most likely be the first to detect a bioterrorist event and respond to it. Local law enforcement and emergency management agencies have inconsistently shared their emergency response and bioterrorism planning activities with partners in the public health and medical communities. At the federal level, anti-terrorism programs are spread across many different agencies and departments, including the Departments of Health and Human Services, Justice, and Defense, often with overlapping goals and objectives. NACCHO has urged law enforcement, military, and public safety officials to make the specific contributions of public health agencies part of their planning efforts.

The contributions of local public health practitioners to emergency response planning will vary widely across jurisdictions and may include:

- the ability to rapidly assess the health of populations in affected areas;
- the expertise needed to implement surveillance systems to monitor the health status of populations following an event;
- the resources to produce and distribute health education materials to medical providers, affected populations, and the "worried well";
- the authority to control disease outbreaks and identify and mitigate any resulting environmental health hazards;
- the experience of providing for the needs of special populations, such as the disabled or elderly, during and after a disaster event.

Through the National Public Health Performance Standards Program, a CDC-sponsored initiative to create national standards for state and local public health systems, NACCHO and other national organizations are working with CDC to develop a set of performance measures for local and state public health agencies; a subset of these performance measures will focus on bioterrorism and emergency response capacity.[9] These measures will set the standard for effective planning and coordination among local, state, and federal public health and public safety agencies. The bioterrorism performance standards will also guide communities that have not yet integrated bioterrorism into their comprehensive emergency response plans. In a recent NACCHO survey, 84% of the responding local health officials reported that their jurisdictions had community disaster plans that defined the roles of local public health entities in disasters, but only 24% of the local health officials surveyed reported that their jurisdiction's disaster plan addressed bioterrorist events.[10]

NEW COLLABORATIONS

The development of Metropolitan Medical Response Systems across the country with federal support has brought diverse stakeholders together to develop local response plans and practice these plans using field exercises and "table-top" simulations. These stakeholders include police and other law enforcement authorities, fire departments, poison control centers, local National Guard units, and local and state public health officials. Clearly, the missions and priorities of civilian and military public health agencies differ substantially.[3] The idea of working with the National Guard, the Department of Defense, and other military groups may seem foreign to many public health practitioners, but these groups can provide important resources for the front line response to a bioterrorist event or other natural disaster. These resources include decontamination equipment, stockpiles of pharmaceuticals and medical devices, expertise in crowd control, and back-up medical personnel.

In the case of a bioterrorist attack—or even a hoax—the Federal Bureau of Investigation will take immediate control of the situation and coordinate the local response. It is important to emphasize that local public health agencies are not seeking to duplicate the crisis management function of the FBI or the post-incident management function of the Federal Emergency Management Agency, which would include treatment of infected individuals and provision of shelter and other services for the affected population. Instead, local public health agencies want to contribute to a coordinated and effective local response that will benefit and protect the health of their communities during and after the event. Therefore, local public health officials need to coordinate with the FBI and other law enforcement agencies in advance to understand the responsibilities of various partners. At the federal level, NACCHO has a role to play in making the needs and contributions of local public health known to the FBI and other emergency management agencies, and in developing clear lines of communication.

LOCAL PUBLIC HEALTH AGENCY NEEDS

NACCHO's survey of local public health agencies' preparedness capacity[10] makes clear that disaster preparedness activities at the city and county level vary tremendously nationwide. Several local public health departments, typically those in large urban centers such as New York City or Kansas City, have well-developed response plans that serve as modes for communities across the country.[10] These plans have taken an "all-hazards" ("dual-use") approach, meaning that the plan can be used for responding to either bioterrorism attacks or other public health emergencies. Working with CDC, NACCHO is tracking the progress of three Centers for Public Health Preparedness (DeKalb County Board of Health, Georgia; Denver Health, Colorado; Rochester-Monroe County Health Department, New York) that were funded to develop their bioterrorism and emergency response infrastructure and share the lessons learned in their preparedness planning with other local public health agencies.

The majority of county and city public health agencies have not devoted resources to developing bioterrorism preparedness plans. Many local public health agencies are looking for guidance and sample documents such as bioterrorism response plans or state emergency management policies that could be customized for their use. Other jurisdictions are looking for equipment standards and evaluations of new technologies before spending limited resources on items such as radios, cellular telephones, surveillance software, or decontamination devices. A number of local agencies have asked for a centralized listing or "clearinghouse" of federal, state and local resources for information on bioterrorism and emergency response preparedness. Others are looking to their peers and national associations for guidance and support in efforts to improve working relationships with health care facilities, state health departments, and voluntary associations such as the Red Cross. An important objec-

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tive of NACCHO's bioterrorism program is to help local public health officials share their successes and failures by fostering peer exchange networks among practitioners across the country.

The need for further education of the public health workforce about bioterrorism is a major concern among local public health officials nationwide. Only 5% of local public health agency directors that were surveyed as a part of a NACCHO bioterrorism needs assessment[10] reported that all appropriate members of their staff had received comprehensive bioterrorism training. The survey also found a need for detection and decontamination equipment as well as a need for funding to build the surveillance and communications capacity to respond appropriately in an emergency.

Local public health agencies serve on the frontlines in responding to bioterrorism as well as to other public health crises of all sorts. Everyday outbreaks of diseases such as measles, hepatitis, or tuberculosis require local public health agencies to build their capacity to respond quickly to reduce injury and prevent future outbreaks. Building this capacity will require sustained planning and resources and close collaboration among local, state, and federal public health officials. NACCHO will continue its efforts to build local response capacity and to maximize limited public health resources to benefit and improve the health of communities nationwide.

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