

## RESPONDING TO THE THREAT OF BIOTERRORISM: IS CALIFORNIA'S PUBLIC HEALTH SYSTEM READY?

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### Focus of This Roundtable

This Roundtable will explore the threat of bioterrorism and the role of the public health system in responding to an attack, the adequacy of the nation's and California's public health infrastructure to address ongoing and emergent public health problems, and the state's role in bioterrorism preparedness and prevention.

### Questions to be Addressed at This Roundtable

- ♦ What is the nature of the bioterrorist threat and how is California vulnerable?
- ♦ What is being done to prepare California's state and local public health system for a bioterrorist attack?
- ♦ What is the role of the public health system in responding to bioterrorism?
- ♦ What are ongoing efforts to enhance the nation's public health infrastructure?
- ♦ What is the Model State Emergency Health Powers Act? What civil liberties issues does it raise? How would the Act change California's current public health laws?

### The Roundtable Panel

#### **Mohammad Akhter, MD, MPH**

*Executive Director*

*American Public Health Association*

#### **Ignatius Bau, JD**

*Deputy Director of Policy and Programs*

*Asian and Pacific Islander American Health Forum*

#### **Richard Burton, MD, MPH**

*Public Health Officer*

*Placer County Health and Human Services Department*

#### **Lawrence Gostin, JD, LLD**

*Director*

*Center for Law and the Public's Health at Johns Hopkins and Georgetown Universities*

#### **Kevin Reilly, DVM, MPVM**

*Deputy Director, Prevention Services*

*California Department of Health Services*

#### **Keith Richman, MD**

*Assemblyman*

*California State Assembly*

### The Role of the Public Health System in Responding to Bioterrorism

Responding to the threat of bioterrorism – the intentional use of a biologic agent to cause death or disease – has been a heightened concern for federal and state officials in recent years. A bioterrorist attack could create a public health emergency with potentially catastrophic consequences for health and public safety. The first line in a defense against bioterrorism includes medical care providers in hospitals, doctors' offices, and clinics, and public health workers such as epidemiologists, who study the causes and distribution of disease, and specialists in disease surveillance and control. The public health system plays a critical role in bioterrorism preparedness and response, including the detection and monitoring of disease outbreaks and providing laboratory support for confirmation of unusual diseases.

The recent anthrax attacks underscore the threat posed by bioterrorism and highlight the importance of having a public health system that is adequately staffed, trained, equipped, and funded. The attacks engaged many parts of the medical and public health system at federal, state, and local levels, including the Centers for Disease Control and Prevention (CDC), the Public Health Service, the federal Office of Emergency Preparedness, hospitals, county and state health agencies, and emergency management agencies. While the attacks were relatively limited in scope, they hinted at the potential for a more widespread bioterrorist attack to cripple the nation's public health and health care system if preparations are insufficient.

Based on this real-world event and simulated exercises, federal health authorities and policymakers have questioned whether or not the nation's public health infrastructure is capable of handling a large-scale bioterrorist attack. In May 2000, the Department of Justice conducted an exercise called TOPOFF, which simulated a broad terrorist attack, including the release of a harmful biological agent in Denver. The Dark Winter exercise, conducted in June 2001 by the Center for Strategic and International Studies, a bipartisan center for the study of global issues, simulated a smallpox attack on the U.S. These simulations, together with the nation's experience handling the anthrax attacks, have reinforced the need for strong leadership, ample and flexible resources, adequate health care staff and facilities, communication and cooperation across multiple agencies and levels of government, and disease containment strategies that protect the public's health while not placing undue restrictions on individual civil liberties.

## Elements of the Public Health Infrastructure

The goals of the public health system are to prevent epidemics and the spread of disease, protect against environmental hazards, prevent injuries and premature death, encourage healthy behavior, aid in disaster recovery, and ensure the quality and accessibility of health care services. In addition to bioterrorism, existing threats to public health include chronic diseases such as heart disease, cancer, stroke, and diabetes; high-risk behaviors such as tobacco, alcohol, and drug use; occupational hazards; unintentional injuries; and infectious diseases such as HIV/AIDS, tuberculosis, and West Nile virus.

A strong public health infrastructure provides the capacity to prepare for and respond to these threats to the nation's health, whether they are bioterrorism attacks, emerging infections, occupational or environmental hazards, or increases in chronic or communicable diseases. The public health infrastructure comprises state and local public health agencies, the public health workforce, and the monitoring, information, and communication systems used to collect and disseminate data about chronic, infectious, and emerging diseases. Keys to preparedness include the capacity for surveillance of existing and emerging diseases; a network of laboratories; appropriate diagnostic tools; communication systems for data and information sharing; trained epidemiologists, clinicians, and researchers to study, detect, monitor public health threats and disease outbreaks; and leaders who can communicate effectively with the public and earn their trust.

## Improving the Public Health Infrastructure

According to a 2001 report by the U.S. General Accounting Office, the nation's public health infrastructure is not well equipped to respond to a large-scale emergency health event. Based on the decline in emergency rooms and hospital beds in the U.S., many public health experts believe the health system would be unable to handle a surge in capacity that a bioterrorist attack could provoke. Moreover, local public health agencies may be unprepared to respond to such an emergency. According to a 2001 survey by the National Association of City and County Health Officials (NACCHO), approximately 25 percent of local public health agencies do not have a plan for responding to bioterrorism, while a majority believes they are not adequately prepared for a bioterrorist attack. A survey of county public health directors conducted in early 2002 by the National Association of Counties (NACo) supports the conclusion that most local health departments are not prepared for biological or chemical weapons attacks. The Association of State and Territorial Health Officials (ASTHO) has stressed the need for a strong national strategy and availability of federal funds to support local public health capacity.

Prior to the anthrax attacks in October 2001, federal health officials and policymakers had undertaken steps to bolster the capacity of federal, state, and local public health agencies to respond to bioterrorism. In 1999, the U.S. Department of Health and Human Services (HHS) established an anti-bioterrorism initiative, which aimed to improve the national public health surveillance network; build a stockpile of drugs and supplies; increase research and development in diagnostics, drugs, and vaccines; and support state and local planning efforts to defend against bioterrorism. HHS created the National Pharmaceutical Stockpile, a repository of antibiotics, vaccines, and medical supplies for use in a public health emergency, and the

Health Alert Network, a nationwide, Internet-based system that facilitates public health communications and training. With funding from the HHS Office of Emergency Preparedness (OEP), 97 cities have developed Metropolitan Medical Response Systems that integrate local emergency response systems, including public health departments, law enforcement agencies, and medical care providers, to provide a coordinated response to a mass casualty event. CDC released a strategic plan in April 2000 that recommended additional ways to reduce U.S. vulnerability to biological and chemical terrorism. In November 2000, President Clinton signed the Public Health Improvement Act (P.L. 106-505), which authorized funding for a wide range of public health initiatives, including grants to state and local governments to help them prepare for public health emergencies such as bioterrorist attacks.

## The Federal Response to Anthrax Attacks and Bioterrorism

The federal government responded to the anthrax attacks in a number of ways. CDC communicated with local health departments about symptoms of anthrax and antibiotic use, provided support personnel to treat those who might have been exposed, collaborated with local health and law enforcement officials to investigate anthrax reports, and tested numerous potential anthrax samples along with its partner laboratories in the states. The Food and Drug Administration (FDA) helped ensure that adequate supplies of effective antibiotics were available. In November 2001, HHS created a new Office of Public Health Preparedness to coordinate a national response to public health emergencies. HHS also named a special advisor on vaccine development and production and a special assistant to the Secretary of HHS on bioterrorism. To prepare for future bioterrorist attacks, the federal government arranged to purchase more than one billion doses of antibiotics and 155 million doses of smallpox vaccine to add to the National Pharmaceutical Stockpile. However, the federal government's response has been criticized by some because of the lack of coordination among the numerous agencies responsible for responding, the lack of a single spokesperson to whom the public could turn for information, and lack of a clear public communications strategy.

The U.S. Congress is considering additional legislation to bolster national efforts to combat bioterrorist attacks and prepare for public health emergencies. In December 2001, the Senate passed a \$3.2 billion bioterrorism authorization bill (S. 1715), sponsored by Senators Bill Frist (R-TN) and Edward Kennedy (D-MA), while the House passed a \$2.7 billion bioterrorism defense bill (H.R. 3448), sponsored by Representatives Billy Tauzin (R-LA) and John Dingell (D-MI). Both bills authorize funding to the states for bioterrorism preparedness and to CDC for facilities and system improvements. Although the bills are substantially similar, the differences between them were not reconciled before Congress adjourned in 2001.

In January 2002, President Bush signed a separate FY2002 supplemental budget bill appropriating \$2.9 billion to HHS for bioterrorism preparedness. Of this amount, Congress allocated \$1.1 billion to states to improve bioterrorism preparedness in hospitals and state and local health agencies. California health agencies and hospitals are slated to receive \$69.7 million, and Los Angeles County will receive a separate grant of \$27.8 million. Forty-nine cities, seven in California, will receive part of \$14.6 million to help them prepare plans under an existing emergency preparedness program. States received 20 percent of their total allocation at the end of January

(\$19.5 million for California), and must submit to HHS a comprehensive plan to improve their core public health system by May 15, 2002 to receive their full allocation. According to California Department of Health Services (DHS) Director Diana Bonta, the state will use its funds to improve hospital preparedness, develop a plan to distribute vaccines and antibiotics, and strengthen programs to identify disease outbreaks.

President Bush's FY2003 budget proposes \$5.9 billion for improvements in the nation's public health system. Specifically, the budget proposes:

- ◆ \$1.2 billion to increase the capacity of state and local health delivery systems to respond to bioterrorism attacks, including \$591 million to hospitals for infrastructure improvements, \$210 million for states to assess and strengthen their ability to respond to such attacks, and \$200 million to increase laboratory capacity;
- ◆ \$2.4 billion for research and development, including \$1.7 billion to the National Institutes of Health for vaccine, therapeutic, and diagnostic research and development, and \$420 million to the Department of Defense;
- ◆ \$851 million to improve federal capabilities to respond to bioterrorist events, including \$300 million for the National Pharmaceutical Stockpile, \$100 million for smallpox vaccine distribution, and \$99 million to protect the nation's food supply;
- ◆ \$392 million to strengthen public health communications, including \$202 million to create a national information network that links emergency medical responders with public health officials and permits early warning and sharing of information, and \$175 million to assist state and local public health providers to acquire the necessary hardware to access this information.

### The Model State Emergency Health Powers Act

States are responsible for monitoring and ensuring the public's health. In order to strengthen the public health infrastructure at the state level, CDC asked the Center for Law and the Public's Health to develop a model state law to assist states in drafting legislation to deal with public health emergencies. The latest draft of the Model State Emergency Health Powers Act was released December 21, 2001. States could tailor the model legislation to meet their individual needs.

The model legislation is designed to provide a legal framework for individual states to respond to a large-scale bioterrorist attack, including a detailed enumeration of emergency powers granted to governors and public health authorities in a public health emergency. Governors could order large-scale quarantines, seizure of hospitals and businesses, mandatory vaccinations, and destruction of contaminated property. The Act has been supported by HHS, and is being considered for adoption in whole or in part by many states, including California, where it has been introduced by Assemblyman Keith Richman as AB 1763.

Supporters say the legislation is needed to update and clarify current public health laws that differ across states. However, some opponents are concerned that many of the provisions would violate individual rights to autonomy and privacy. Granting states emergency powers to protect the public's health could prove futile if the public refuses to cooperate with mandatory vaccinations or quarantines that they view as unjust or extreme. The recent revision to the model law narrows the definition of a public health emergency to exclude

known epidemics such as HIV/AIDS, drops misdemeanor penalties for those who refuse medical treatment, and allows people to opt out of treatment for religious or other reasons. Yet these amendments do not resolve the debate between civil rights and public health advocates over how to balance common interests with individual liberties in public health emergencies.

### The Status of California's Public Health Infrastructure

Under state law, all counties in California must provide public health services. The framework of the state's public health system consists of 58 county and 3 city public health agencies, but the system is supported by many medical care providers, hospitals, laboratories, clinics, and organizations, both public and private. California participates in the national Health Alert Network, and the Los Angeles County Department of Health Services is one of three national Centers for Public Health Preparedness, a training site for communications and community preparedness for health emergencies. In 1999, California received funding from HHS to develop a public health focused bioterrorism preparedness and response plan, to develop enhanced detection and surveillance systems, and to enhance capacity to detect biological and chemical agent threats. Currently, Metropolitan Medical Response Systems are located in 14 California cities.

Despite these activities, county public health officers argue that an erosion of state and federal funding and decreased hospital capacity has weakened the ability of the state's health system to respond to public health problems such as tuberculosis, AIDS, and influenza, let alone a health crisis such as bioterrorism. At a recent hearing of the California State Assembly Committee on Health, public health officials testified that California's health care system suffers from a shortage of physical resources such as hospital beds, drugs, and decontamination and protective equipment, as well as nurses, doctors, and other staff. Based on the testimony of public health experts at two disaster preparedness hearings held at the end of 2001, the Little Hoover Commission concluded that California has not adequately maintained its public health system, and that detection capability is inadequate, facilities are inadequate, and health workers are not well prepared to handle public health disasters.

### What Can Be Done to Strengthen California's Public Health System?

To strengthen California's preparedness for a bioterrorist attack, Governor Davis provided \$5 million at the end of 2001 to county health departments to strengthen investigative and disease surveillance activities, in addition to the \$1 million in the FY2001-02 budget. Currently, the Division of Communicable Disease Control within the California Department of Health Services (DHS) works with local and national health officials and health care providers to monitor health, identify and investigate existing and potential health problems, develop and implement prevention strategies, and provide education and training. According to Governor Davis' FY2002-03 budget, DHS is expending \$2.6 million on four public safety focus areas: preparedness assessment and planning; surveillance and epidemiology capacity; improved laboratory capacity for biological and chemical agents; and health alert network training. In addition, DHS has sought federal funding to support 19 local health jurisdictions for bioterrorism planning and preparedness (the Enhanced Rapid Health Electronic Alert, Communication, and Training System, or

RHEACTS), and to improve local surveillance and communications systems.

In response to the anthrax attacks, DHS is developing a state Bioterrorism Preparedness and Response Plan to detect and respond to a biological or chemical terrorist attack. The first part of this plan, addressing surveillance and epidemiologic response, was released in January 2002. DHS has also issued new regulations requiring doctors and laboratories to report cases of smallpox and other likely biologic warfare agents within one hour. The California Medical Association (CMA) is planning a campaign to educate physicians about how to diagnose anthrax and other biochemical agents. UCLA plans to conduct a seminar series for public health officials about bioterrorism and has developed a bioterrorism training program for doctors and hospital workers.

In the Legislature, Assemblyman Keith Richman has introduced a bill (AB 1763) based on the Model State Emergency Health Powers Act. The bill would name DHS as the lead public health authority (a designation currently held by county health agencies) and would allow the governor to declare a public health emergency in cases of bioterrorism or epidemic or pandemic disease. State law currently allows patients to be isolated and forcibly treated, but a widespread bioterrorist attack could require a more large-scale quarantine. Like the model legislation, AB 1763 would permit forcible quarantines and seizure of hospitals, drugstores, and other private property. However, some are concerned that this expansion of public health law and law enforcement authority could violate civil liberties.

Other proposed legislation that relates to bioterrorism and the public health system includes:

- ◆ AB 1921 (Richman), which would require doctors, nurses, and pharmacists to undergo bioterrorism and disaster management training every two years.
- ◆ AB 2000 (Nakano), which would require the Director of the state Office of Emergency Services, in cooperation with the State Fire Marshal, to develop training procedures for state and local agency fire service personnel to respond to terrorist acts.
- ◆ SB 27/1350 (McPherson), which would require the state Office of Emergency Services to develop specified training relative to terrorism awareness and response to be completed by certain categories of personnel in 2002.
- ◆ SB 406 (Ortiz), which would require the Director of DHS, in collaboration with local health officials, to establish, by January 1, 2003, reasonable and appropriate capacities for state and local health agencies to detect and respond to significant public health threats, including major outbreaks of infectious disease, antimicrobial-resistant pathogens, and acts of bioterrorism.
- ◆ SB 1298 (Ortiz), which would declare the intent of the Legislature to identify federal and state funds to use in building the capacities of local health departments to respond to and prepare for public health emergencies.

The collective response of federal, state, and local public health agencies is needed to defend against a bioterrorist attack. But in the face of an anticipated \$12 billion budget shortfall, a primary concern for California is the cost of infrastructure development to ensure the public's health and safety. According to a 2001 report by the County Health Executives Association of California and the California Conference of Local Health Officers, bioterrorism preparedness may cost California counties up to \$80 million in start-up costs and \$50

to \$60 million annually. A coalition of hospital, law enforcement, and fire agencies has proposed increasing California's sales tax by a quarter-cent to raise up to \$1 billion annually for bioterrorism prevention. Preparing for future public health emergencies and assuming additional health and security responsibilities may require trade-offs among competing budget priorities. However, such investments could help protect the health and safety of Californians not only from bioterrorism but also from naturally occurring communicable and infectious diseases and environmental hazards.

### For Further Reference

- American Civil Liberties Union  
<http://www.aclu.org/>
- American Public Health Association  
<http://www.apha.org/>
- Association of State and Territorial Health Officials  
<http://www.astho.org/>
- California Department of Health Services  
<http://www.dhs.cahwnet.gov/>
- California Medical Association  
<http://www.cmanet.org/>
- Center for Civilian Biodefense Studies, Johns Hopkins University  
<http://www.hopkins-biodefense.org/>
- Center for Law and the Public's Health, Johns Hopkins and Georgetown Universities  
<http://www.publichealthlaw.net/>
- Center for Public Health and Disasters, UCLA  
<http://www.ph.ucla.edu/cphdr/>
- Center for Strategic and International Studies  
<http://www.csis.org/>
- Centers for Disease Control and Prevention, Public Health Emergency Preparedness and Response  
<http://www.bt.cdc.gov/>
- Council of State and Territorial Epidemiologists  
<http://www.cste.org/>
- Federal Emergency Management Agency  
<http://www.fema.gov/>
- Kaiser Family Foundation Special Coverage of September 11<sup>th</sup> Aftermath  
[http://www.kaisernetwork.org/specialcoverage/9\\_11.cfm](http://www.kaisernetwork.org/specialcoverage/9_11.cfm)
- Little Hoover Commission  
<http://www.bsa.ca.gov/lhc.html>
- National Association of Counties  
<http://www.naco.org/index.cfm>
- National Association of County and City Health Officials  
<http://www.naccho.org/>
- Nuclear Threat Initiative  
<http://www.nti.org/>
- Official California Legislative Information  
<http://www.leginfo.ca.gov/>
- U.S. Department of Health and Human Services  
<http://www.dhhs.gov/>