

**COUNCIL OF STATE AND TERRITORIAL
EPIDEMIOLOGISTS**

**TESTIMONY BEFORE THE
SUBCOMMITTEE ON
NATIONAL SECURITY, VETERANS AFFAIRS, AND
INTERNATIONAL RELATIONS**

COMMITTEE ON GOVERNMENT REFORM

U.S. HOUSE OF REPRESENTATIVES

**COMBATING TERRORISM: FEDERAL RESPONSE TO A
BIOLOGICAL WEAPONS ATTACK**

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Mr. Chairman, Members of the Subcommittee, I am Patricia Quinlisk, MD, MPH, Medical Director and State Epidemiologist for the Iowa Department of Health. I am here today representing the Council of State and Territorial Epidemiologists as a former Council President and as one of its primary consultants on bioterrorism preparedness. I am also a member of the Gilmore Commission, formally known as the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction and include some of their conclusions and recommendations in my testimony.

I am very honored to appear before the Subcommittee today to provide testimony on one of the most critical issues facing our nation: bioterrorism preparedness. The comments I will provide are from the perspective of a state health department as it interacts with federal agencies and with local medical, emergency, and health department partners.

Comments on “Dark Winter”:

I have been asked to address some of the public health issues identified during the “Dark Winter” exercise. Even though I was not part of “Dark Winter,” I have talked to several people who were, and have been part of similar exercises in the past. Public health issues that become apparent during these events include: 1) legal authority and abilities; 2) communication with other public health entities, emergency officials and the public; and 3) coordination with others involved in the emergency response.

Legal issues include those surrounding quarantine: under what legal authority is it instituted? If different states implement quarantine differently, does the federal

government arbitrate? Issues such as who is allowed to break quarantine would need to be addressed; for example, do you allow trucks with food through quarantine lines? During the "TOP-OFF" exercise, I understand that the airport was closed, resulting in a major barrier to the air delivery of the medical stockpile.

There are public health laws at the state level regarding individual quarantine, but their actual use varies by state. In Oklahoma, where I worked for several years, we involuntarily quarantined recalcitrant tuberculosis patients several times per year, however, in the six years I have been in Iowa, nobody has been involuntarily confined under communicable disease laws. Also, in these days of foot and mouth disease, we need to consider animal and agricultural product quarantine issues. Many states, including Iowa, are in the process of developing emergency plans to address animal and agricultural issues. Continued federal support is needed to ensure plans are compatible across state lines, fully encompass the complex nature of agricultural issues, and that economic issues of state and national importance are addressed.

We need to resolve not only what the law will allow, but also what is actually doable given the resources present during an event, and human nature. For example, If a parent believes his child is ill and needs medical help, it is unlikely he will obey a command to stay home, unless he has access to acceptable medical help via the phone or similar system.

Communication and coordination concerns arise, in large part because, in the past, public health has been only a minor player in state emergency plans. But with terrorists potentially using biologic agents, public health has become a major component. Previously, little understanding existed between traditional first responders, and public health officials on the scope of their practice, and how these two areas need to be integrated. I understand that during "Dark Winter," there was an early request for the number of people exposed to smallpox, when the health official had not yet been able to determine this. I have also found that during these exercises, when medical and scientific information was requested, it is delivered in a context not easily understood or useable by the non-medical people in command. Coordination and communication between these groups is improving but I believe we still have a long way to go. The federal role in providing resources and support for these exercises and training is critical.

At many of these exercises, I hear about the incident command-type structure and that, at the "site" of an event, the incident commander is in charge. This obviously works well for more traditional types of emergencies; however, it is more than likely that there will not be a "site" during a biologic event, unless it is announced by the perpetrator. Thus, whether the modification of this type of command structure or its replacement with another type of structure is most appropriate during a biologic event is unclear, but continuing exercise scenarios will be important to determine this.

The Role of Public Health During Bioterrorism Events: State-Federal Interaction

For those of us working in Bioterrorism in the states, our main federal partner is the Centers for Disease Control and Prevention (CDC). Almost all federal funding for states' preparedness comes through CDC. Also, CDC provides guidelines, training, and laboratory and communications support. Very little contact or support comes from other federal agencies.

Examples of CDC Bioterrorism guidelines include, *Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response*, and *Vaccine (Smallpox): Recommendations of the Advisory Committee on Immunization Practices*. Both of these were written with collaboration with state public health officials, and are posted on CDC's web site.

Many training events have been sponsored by CDC and have occurred (some via satellite to insure countrywide availability) on the medical and public health aspects of terrorism. CDC has also developed and provided fact sheets, for the public and for medical professionals, on organisms that might be used in terrorism.

Within the last few years, great progress has been made to create state to federal secure communications and alert systems, primarily Epi-X. An illustration of this is an investigation several months ago of an outbreak of diarrhea. CDC was consulted concerning the possibility that a nationwide fast food chain, might have received contaminated food, and might be serving this to the public. CDC put out an alert over the Epi X system with this information and requesting that any similar cases to be reported immediately; within several minutes I was sent an e-mail message, phoned at my office and at home, and paged. All of this was done confidentially since it would not have been appropriate at this point to have this hypothetical concern made public with the probable consequences of severe economic damage to this industry.

Another example of coordination between state health departments and CDC with respect to foodborne illness is the creation of the "wise persons" system. Since associating a food with disease can have significant economic impact on the food industry, a system of "wise persons" from both state and federal agencies, was set up to act as independent reviewers of the epidemiologic and laboratory findings. This system provided front line investigators immediate access, via conference calls, to federal and state experts for consultation, and allowed for "best scientific decisions" to be made regarding interventions and appropriate public health actions. Though this type of system requires no additional funding or resources, it may play an important role in providing support during health crises. The federal government should continue to facilitate and promote these type of creative approaches, "thinking outside the box", in their employees.

Electronic reporting of cases of disease from states to CDC is also improving through both very recent innovations and on-going implementation of the National Electronic

Disease Surveillance System (NEDSS). But more resources and much progress is still needed to integrate all reportable diseases into one reporting system.

Both of these systems, Epi-X and NEDSS, address state to federal reporting, however these systems are often not available for local to state reporting. In Iowa for example, reporting of disease identified by the public health lab to the state health department which is 100 miles away, is still done on paper sent through the U.S. mail. And although in Iowa every local health department has a computer, and is linked to the state health department via the Internet, this is not the case in every state. Federal funds distributed by CDC for the Health Alert Network (HAN) are beginning to address some of these issues, but much more need to be done before all levels of public health will be able to communicate effectively and securely.

An important policy bonus of federal resource investment in these public health communications systems is that they are used every day for more common diseases, and events. Thus, if bioterrorism ever occurs, many of the systems and processes used by public health will be well used and exercised. Meanwhile, these systems will help us address new and emerging diseases, like West Nile Virus.

The Role of Public Health During Bioterrorism Events: Communication and Coordination Issues Among All Relevant Partners

Public Health and the Medical Community – Although the public health and medical communities coexist, we need to have a better understanding of each other's roles and abilities, allowing better coordination. For example, public health needs to know the number of isolation rooms available, in the event that quarantine of individuals is necessary, and conversely, medical professionals need to understand the critical nature of reporting patients with certain syndromes. Also, those outside the health community, often lump medical and public health together, yet very different roles will be played by these entities during a terrorist event.

Public health relies heavily on the medical community to tell us what they are seeing, even with rapid electronic reporting and analysis of disease occurrence. A good example of this is West Nile Virus. New York City probably has one of the best tracking systems for diseases, and yet it was a single physician, who had attended a seminar by a member of the health department, who, when she saw two cases of encephalitis with unusual presentations, thought to pick up the phone and call the health department. Thus the outbreak was identified. Medical and public health professionals have traditionally relied on these types of informal connections for information, and they, I believe, will continue to be important in the future. However, this means public health must become more visible to the medical community, must conduct more educational events to increase medical professionals' awareness of public health, and must impress upon those in the medical community about the critical role they will play in identifying, reporting and responding to a terrorist event.

This task must be accomplished in an environment of increasing time pressure on health care professionals.

Public Health and Enforcement -- Another issue is coordination and communication between law enforcement investigation and public health investigations -- both of which will occur during a bioterrorist event. At present because of differing laws and regulations, barriers exist to communication and coordination. Several years ago in Iowa, an outbreak was reported of a sexually transmitted disease among residents of a state facility for the mentally and physically handicapped. The local and state health departments began investigating to determine the mode of transmission and to control the outbreak. Since these residents were not able to give consent for sexual contact, abuse was suspected, and law enforcement was notified. These two investigations progressed side-by-side with little interchange. Since residents' medical information had to remain confidential unless informed consent was given, public health was not able to tell law enforcement who was infected. Conversely, law enforcement could not tell public health of the results of their interviews and investigation of staff. Obviously both investigations could have benefited by an exchange of information.

Not only is clarification needed for the exchange of information between public health and law enforcement officials during actual terrorist events, but also in the case of threats. Several years ago in a rural area of Iowa, residents received a warning in their mailboxes that anthrax and botulism were going to be put into the water supply. Residents immediately called the local health department, who then consulted the state health department, who then called the local FBI office. Unfortunately, the response was that they had known about this for days, and were investigating, but no information had been shared with the health department. I am pleased to say that communications between the health department and the local FBI have since improved. (In the letter, the sender made it clear that it was another group that was threatening to contaminate the water, the letter sender was just offering to send anyone with about \$25 a medicine that would prevent them from becoming ill.)

Public Health and Communication to the Public -- I believe that communications between; federal, state and local responders; responders at the same level; and between the responders and the public, will be a major issue in a terrorist event. As stated in CDC's guidelines, "effective communication with the public through the news media will.. be essential to limit terrorists' ability to induce public panic and disrupt daily life. "

An example of the importance of the media role in communicating health messages, is the recent episode of meningitis in Ohio. Let me quote the print media, "One false rumor circulated among the crowd (waiting for antibiotics) that the Ohio National Guard had been called out to quarantine the area," *The Beacon Journal*, June 4, 2001. A mother said they, "were fearful to leave home with their 8-year-old son, to eat out or even rent a movie.... I didn't want him eating the school lunch," *The Beacon Journal*, June 4, 2001. "School officials canceled the rest of the school year," *The Beacon Journal*, June 6, 2001.

I know from personal experience, that during health crises such as this, the immediate demand for information, in the context of a continually evolving situation, creates great difficulty in communicating clear, consistent and concise messages to the public via the media. My impression from afar of this incident is: 1) the publicly perceived risk was out of proportion to the actual disease risk, 2) conflicting and confusing information was published, 3) initially there did not appear to be “one voice of authority”, 4) the worried well had trouble judging the risk to themselves and to their children, and 5) initially public statements were made about “rather be safe than sorry”, leaving the public unsure of the scientific and medical basis for action. This is in the context of a well-known disease, and frequently used federal guidelines. It raises concerns about the media and governmental responses when and if we end up dealing with unknown diseases with unpracticed guidelines. The federal government should continue to work with state and local health departments, and through national public health professional organizations to develop response plans, guidelines, and exercises for addressing public communication in health emergencies.

Inclusion of Mental Health in Bioterrorism Preparedness --Many of us in public health are concerned not only about the health impact of the diseases themselves but also of the psychological impacts, both during the event and after. It is my understanding that the Oklahoma City bombing victims and their families are still experiencing the impact of that event. Yet mental health experts are seldom at the table when discussing response to terrorist events. In my opinion, they need to be at the table during all exercises, and incorporated into state and federal emergency plans. Most medical bioterrorism experts expect that the “worried well” will be one of the major issues that the medical and public health entities will be dealing with during and after a terrorist event, yet strategies to deal with this issue are few and far between. This is the type of issue that mental health experts can help to address.

Laboratories Are a Key Component in Bioterrorism Preparedness -- Within the public health system, the laboratory is critical. The public health laboratory must be able to quickly identify any organism potentially involved, and communicate that to the appropriate medical and public health officials. Just as important is the ability to determine that no pathogenic organism is involved, for example, being able to quickly determine that no anthrax is in a hoax letter. False positive results can be devastating for the people and institutions involved. Federal funding being distributed by CDC is helping to address the issues of having appropriate testing and identification available at the local and state levels, but more needs to be done. With federal help, we need to establish the highest appropriate level of laboratory capacity within hospital labs, local public health labs, state public health labs, and CDC

Also, veterinary laboratories need to be integrated into the bioterrorism surveillance system, since animals may become ill prior to human illness, and animals may act like the “canary in the mine” to forewarn of impending human disease. Alternatively, livestock and plant diseases may be deliberately introduced in a “agro-terrorist” event and have major state, national and international economic effect.

In the past several years, a network called PulseNet has been in place that compares fingerprints of organisms across the U.S. and Europe. As we meet here today, an outbreak of Salmonella is occurring, first identified in Illinois. Using the Epi-X system, and CDC's PulseNet, state and local health departments were alerted. Iowa is presently actively searching for similar cases, by case reporting, and laboratory fingerprinting of Salmonella.

Laboratories also need surge capacity, i.e. the ability to deal with large numbers of specimens being sent during an event. With CDC's help, state public health labs are collaborating with each other to address this issue, and to provide back-up when one lab is overwhelmed.

Remember, these organisms will not come into the lab with signs on them saying I may be a bioterrorist agent. The clinical and hospital laboratory personnel need to be trained on procedures to identify the possibility of a potential bioterrorist agent, how to process and forward the organisms to the public health labs, and how to ensure that laboratory personnel are protected from harm. When a potential organism or event is identified, an appropriate system needs to be quickly accessible to package, transport, and deliver the organism to an appropriate public health lab, to insure that proper documentation is accomplished, and that the condition of the specimen on arrival will allow for further study.

An example of the importance of this training for laboratory personnel was demonstrated a few years ago in my state of Iowa. A young man sought care from a rural doctor in Iowa, concerned that he might have brucellosis, as he had recently been around animals with this disease. The doctor agreed that his symptoms were consistent with brucellosis, but to confirm the diagnosis, sent some blood to the local hospital laboratory. On the specimen he attached a note stating he was concerned about brucellosis, because he knew that not only was brucellosis easily spread from animal to human, but that brucellosis often spread in the laboratory setting. When it arrived in the lab, the five laboratory personnel did not take any precautions, but did send it on to a reference laboratory. They also included a note that brucellosis was suspected. Again in the reference lab, appropriate precautions were not taken and 3 people were exposed. In the end, the young man did have brucellosis, and his blood specimen did contain the organism, thus eight people had to take prophylactic antibiotics for several weeks. This organism did have a sign on it, but it was still ignored for reasons that I still do not understand.

Gilmore Commission Issues and Recommendations:

As elucidated by the Gilmore Commission, as a nation we need to focus more attention on the "higher probability, lower consequence" situations, rather than those of "lower probability, higher consequences". Since lower consequence events will rely most heavily on local and state abilities to identify, investigate, and respond to

potential terrorist events, higher priority needs to be given to state and local preparedness. Based on that conclusion by the Gilmore Commission, it made several specific recommendations in the public health arena, including:

- Better coordination with public health agencies in planning, training, and exercise
- Establishing national standards and protocols for surveillance, identification, palliation, and follow-up; and for reporting critical information, including mandatory reporting procedures
- Clarifying the authorities and procedures for public health involvement in terrorist event, especially biological terrorism

Federal support and guidance will be critical in ensuring that state and local entities are prepared.

Concluding Points:

1. Public Health has to be seen by all as a major player and having expertise, and a need, therefore, to control some aspects of bioterrorism preparedness and response. Public Health need to be at the table and not treated as an after-thought.
2. Detection of disease, laboratory identification, investigation and response, and rapid, secure communications, are all critical, but under resourced. These systems are all multi-use and once installed, will be used daily for more common situations as well as preparing to respond to deliberate acts.
3. Allied fields, such as laboratory, veterinary and medical need to be assessed and their appropriate involvement addressed. Also, the coordination between public health and law enforcement investigations need to be addressed both from a legal point of view, and from a day to day interactions necessary to quickly intervene and resolve an event.
4. Communications are critical, between public health entities, between public health and other emergency response agencies, and with the public.

By continuing to build toward a robust comprehensive public health system, we will be building a multi-use system that will be used for more common diseases and situations everyday. Thus, when a terrorist event occurs, the system will be familiar to those involved, and will work without barrier.

Thank you for this opportunity to provide testimony on this important matter before the Subcommittee. I am pleased to answer any questions you may have.