



## GAO's Evaluation of the Public Health Response to the Anthrax Incidents of 2001, with Notes on the Rhode Island Experience

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Shortly after the terrorist attacks of September 11, 2001, suspicious letters containing a powdery substance were received by representatives of the news media in the United States. Pulmonary and cutaneous infections followed in six geographic locations. Some of the pulmonary infections led to death. The powdery substance proved to contain anthrax spores specially processed to enhance the possibility of inhalation and subsequent pulmonary infections. The response to this threat strained existing public health resources at the local, state, and national level.

The United States General Accounting Office evaluated this nationwide response, issuing a report in October, 2003, two years after the incidents began. A brief summary of their findings (1) follows, accompanied by notes about the parallel Rhode Island experience.

### PREPAREDNESS

GAO: Some aspects of public health emergency response plans were operational at the time of the anthrax incidents and helped coordinate the efforts of federal, state, and local agencies, and the anthrax incidents helped vet the plans by uncovering their inadequacies. However, the sheer scope of the anthrax incidents had not been anticipated, and plans had not been drilled adequately.

Rhode Island: At the time of the Anthrax incidents, the Rhode Island Department of Health (HEALTH) had received two years' federal funding for improving its ability to address bioterrorist (BT) threats. Over those two years, it had hired staff for BT planning, training, and enhanced communications with other state and local agencies, health care providers, the mass media, and the general public. It had drafted an agency plan for addressing BT incidents, was working with the Hospital Association of Rhode Island (HARI) and area hospitals to improve their response to BT threats and incidents, and had developed close ties with the Rhode Island Emergency Management Agency (RIEMA). Having built a foundation for responding to BT threats, leadership at HEALTH had participated with RIEMA in statewide drills for disaster preparedness, and was planning department-wide drills for responding to BT incidents. In 1998, HEALTH had worked extensively with municipalities throughout the State to develop a distribu-

tion system for the rapid administration of 180,000 doses of meningococcal vaccine. On September 11, 2001, when New York City was attacked, HEALTH went on high alert, increased its security, reviewed its emergency response plans internally and with RIEMA, and held extensive planning sessions to determine next steps. Nonetheless, like its counterparts in other states, HEALTH had no internal expertise with the use of anthrax as a BT weapon, nor did it have a plan which specifically addressed the public health problems presented by the intentional distribution of anthrax spores in the community. It relied on the federal government to provide information and leadership on specific BT threats. This proved to be a weakness in HEALTH's early response to the anthrax incident, because the federal government was unprepared to play this role. Out-of-the-box guidance and support from the Centers for Disease Control and Prevention (CDC) was not decisive, and in fact was so indecisive that it complicated HEALTH's ability to communicate simple public health messages to the Rhode Island community.

### LABORATORY RESPONSE CAPACITY

GAO: Local response capacity was strained by the magnitude of the anthrax incidents. Public health laboratories were not organized to handle the large volume of samples that accumulated as public concerns grew. Most of the public health work was performed by a few, overworked laboratory personnel who knew how to test for anthrax. Laboratory testing of potentially contaminated objects was slowed by the requirements of law enforcement agencies for the handling of potential evidence.

Rhode Island: When the anthrax incidents were publicized, the Rhode Island public suddenly became aware of light powdery substances in and on a myriad of items, especially those received through the mail. Police and fire personnel responded to many calls about suspicious letters, packages, and other items. Initially, these items were picked up, evaluated for hazards, and sent to HEALTH's laboratory for testing. Because of the sheer volume of the items and the urgency of quick, accurate test results, HEALTH's laboratory staff engaged in heroic, round-the-clock testing at an unsustainable pace. This was no drill. The anthrax

incidents provided a real-time crash test of HEALTH's laboratory capacity under very trying conditions. Up front, the laboratory did not have round-the-clock security for warlike conditions, did not have an organized way of accepting a high volume of potentially dangerous samples from scores of agencies (police and fire departments throughout the state), and had limited experience with "chain-of-custody" issues associated with criminal investigations. Fortunately, HEALTH's strong relationship with RIEMA and state and local law enforcement agencies, combined with strong support from the Federal Bureau of Investigation (FBI), soon helped streamline the laboratory's workload to a demanding but sustainable burden. This re-organization, coupled with the intense dedication of laboratory personnel, prevented a breakdown in the state's public health laboratory system.

#### ADEQUACY OF COMMUNICATION

GAO: Communication among response agencies worked initially and improved during the incidents. Communication between public health agencies and health care providers was cumbersome. Providers did not receive basic information in a timely fashion. Communication between public health officials and their local publics was complicated by the national scope of the anthrax incidents. Information and advice varied from one locale to another, confusing the public.

Rhode Island: The GAO evaluation of this problem is generally descriptive of the Rhode Island experience, with some local differences. In October, 2003, HEALTH was well prepared to respond to public concerns about emerging public health threats. In the Spring of 1998, HEALTH had reorganized its public communications capacity in response to statewide public anxiety about a brief but sharp increase in cases of randomly occurring meningococcus. HEALTH established an Office of Communications, trained staff to work more effectively with the mass media, and later, when federal BT preparedness grants became available, hired additional communications staff to enhance HEALTH's website and to enhance communications with community-based agencies and healthcare providers. HEALTH developed a "blast fax" system, incorporating internal procedures, internal faxing capability, and a contract with an internet-based faxing service, to send faxes rapidly and simultaneously to health care providers and community based agencies throughout the state. These improvements were fully functional in October, 2003. Nonetheless, HEALTH, like other public health agencies throughout the country, struggled with two major barriers to good communication in the weeks immediately following the first anthrax incident. First, addressing a novel problem without clear federal leadership, HEALTH didn't have much to say beyond "stay calm; stay tuned." This message was sorely inadequate for healthcare providers "on the front lines." HEALTH adapted by engaging local infectious disease experts to fill the gap. Second, because many health departments throughout the country did precisely the same

thing, anthrax messages varied from place to place, adding a distinct air of confusion to communications, generally. HEALTH adapted to this situation by carefully vetting its messages with local experts before release, and by publicly acknowledging the fluidity of information as new incidents occurred.

#### LESSONS LEARNED

GAO: The benefits of planning and experience were clearly demonstrated in the public health response to the anthrax incidents of 2001. Effective communication was critical to the coordination of public response efforts and the comfort of the general public. A strong public health infrastructure is the foundation upon which BT preparedness is built. Plans, personnel, equipment, and training are critical elements of this infrastructure.

Rhode Island: HEALTH's experience mirrored the experience of many state and local health departments in other jurisdictions. Existing plans, as well as the collaborations developed in creating them, served the state well, even though a plan specific to anthrax had not been written. Since October, 2001, additional BT plans, specific to pathogens and events, have been written and drilled. In 2003, for example, HEALTH used its BT planning to address the aftermath of the Station nightclub fire, to perform intense surveillance for Severe Acute Respiratory Syndrome (SARS), to prepare the public health response to an approaching hurricane, and to investigate exposure to hydrogen sulfide gas in a shoreline community. HEALTH staff also participated in a recent, multi-state "tabletop" exercise modeling the response to a BT attack. HEALTH has exercised its communications systems frequently since 2001, building depth into staff, systems, and collaborative relationships. Finally, HEALTH has urgently developed Rhode Island's public health infrastructure. With help from the federal government, additional staff have been added to HEALTH teams, and many employees have received specific BT training. Our state will never be perfectly prepared for every new public health threat as it emerges, but responses to the deadly events of 2001 have already improved public health preparedness tangibly and will do so for years to come.

#### REFERENCES

1. United States General Accounting Office. *Public Health Response to Anthrax Incidents of 2001*. [Report to the Honorable Bill Frist, Majority Leader, U.S. Senate.] GAO-04-152. Washington, D.C.: U.S. General Accounting Office, October, 2003.

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