

## **Breaking News: when a leak and the media highlight the chasms in public health communication.**

### **Abstract:**

In mid October 2001, letters containing weapons-grade anthrax passed through several United States Postal Service (USPS) distribution centers, including the site in Trenton, New Jersey. Equipment from that site was sent for repair to the Indianapolis Critical Repair Facility (IRF), a private-sector USPS contractor. When anthrax was detected in the Trenton site, IRF's Director closed the Facility and contacted all employees over a weekend to redirect them to another location on Monday, instead of their usual stations.

The IRF Director brought in technicians from a private hazardous materials lab in Atlanta to collect samples and analyze them for anthrax. Initial tests were positive, but confirmatory tests would take several days. The Director then informed the State Department of Health (ISDH) epidemiology staff of the situation to determine how best to protect IRF employees. ISDH suggested that workers be informed of the actions taken, of the hazards of potential anthrax exposure, and that treatment was available if needed.

The Local Public Health Agency's (LPHA) Public Information Officer received a garbled voice mail from a local reporter, leaving an indistinct recording of the contractor's name, no address, and no follow-up number. The national media had been covering the post-9/11 anthrax incidents in other locations, where five persons, including two postal workers, died as a result of the exposures.

The Atlanta lab results for IRF were leaked to NBC News. The media carried the story 18 hours before the IRF and ISDH received the lab's confirmatory results. National and County officials first heard of the potential local contamination from the media. County-, state-, and private sector leaders then negotiated the unfamiliar jurisdictional territory to resolve who would manage this potentially volatile sequel of the 9/11 anthrax bioterrorism events.

This case focuses on the core function of **assessment** of risk in an outbreak, and to a lesser degree, the challenges in the essential service of mobilizing community partners in **policy development**, from the perspective of a LPHA. The usual assumptions about information flow during an outbreak are examined as we describe how key stakeholders learned of, and responded in this event. The LPHA developed post- 2001 protocols to clarify key staff roles in "White-Powder" events. Have State-Local communications improved in recent episodes?

Kat Draughon  
Joe Gibson  
Millicent Fleming-Moran  
Greg Steele  
Vickie VanDeventer

## **Introduction:**

Since the 9/11/2001 terrorism events, strengthening public health infrastructure, including reporting systems, and response planning have become a national priority<sup>1</sup>. Responsive, well-coordinated reporting is expected to work 24/7 to assure detection occurs before disease spreads through the population<sup>2</sup>. According to CDC's Performance Criteria<sup>3</sup>, testing the responsiveness of emergency reporting and coordination<sup>4</sup> is an annual key responsibility of every Local Public Health Agency (LPHA).

The LPHA is immediately responsible for the core function of *assessment*, to monitor the community's health and investigate problems when they occur. In the function of *policy development* the LPHA *mobilizes key community partners* to resolve an outbreak. However in an emergency response, the LPHA is challenged to maintain lateral coordination with other local responders, while simultaneously keeping vertical communications open with less familiar state, national stakeholders.

## **The case study: October 2001**

In mid-October 2001, weapons-grade anthrax was sent to several public and private offices via the **United States Postal Service** (USPS). Letters processed at the USPS's Trenton, New Jersey facility, contaminated the sorting equipment and buildings with anthrax. USPS sent the contaminated equipment to the **Indianapolis Repair Facility** (IRF), its national repair center sometime in mid-October<sup>5</sup>. As events unfolded of illness and deaths of postal employees and a Florida businessman, the IRF Director ordered an internal audit by October 21 to learn whether equipment had been received from any of the affected postal centers.

October 23: On learning that IRF had 103 pieces of potentially contaminated equipment, in various stages of receiving, checking and repair, the Director closed the Facility until it could be determined if air-borne anthrax now contaminated the IRF work areas, or the employees. His office assistant set up call trees over the weekend to request all 100 employees attend an off-site meeting on Monday, at their Plainfield facility to debrief. The IRF Director's concern is to how to re-establish his unit's key postal repair operations, as other regional USPS service sites are shutting down in the crisis.

The IRF was a private USPS contractor. Not realizing state or local environmental laboratory facilities were available, the Director turned to a private hazardous materials bio-safety lab in Atlanta with which he was familiar. Biohazard Level 3 & 4 equipped technicians flew to Indianapolis; collected samples and returned them to Atlanta sometime between October 25 and 26 for analysis. Initial tests were positive, but needed confirmatory tests would take several days.

On October 24, IRF and postal officials met with **State Department of Health** (ISDH) epidemiology staff and the State Health Commissioner to determine how best to protect the employees. The **ISDH** waited to order prophylactic use of Cipro until samples have been confirmed as anthrax-positive by the Atlanta laboratory. ISDH suggested workers be informed that the hazards of anthrax required quarantining the facility during decontamination, that they be monitored for symptoms, and that effective antibiotics are available for any potential exposed employees. Two other ISDH epidemiology division staff assumed roles for handling media relations, and field assessment of any affected IRF employees. No ISDH epidemiologist had experience with weapons-grade anthrax. At this point no city or county officials, including the LPHA had been notified of the IRF events.

That same week the **LPHA** Public Information Officer's (PIO) voice-mail held a garbled recording from local media attempting to confirm IRF's potential contamination investigation. The local media had been contacted by an IRF employee concerned about potential loss of employment. The indistinct description of IRF's title and function, including no local address, gave no indication of its postal service connection. The contractor's Indianapolis facility had no listing; except for their Plainfield offices. The PIO's calls led to dead-end voicemails, and another county's jurisdiction.

Deaths of two postal workers, further civilian cases of anthrax, and postal workers' growing unease had been in the media all month.

## **10/25-26**

On Monday IRF employees were assembled, notified of the actions taken, told that their jobs were not in jeopardy, and assured that respiratory anthrax is non-communicable, even if any were exposed. However, the death of a Washington DC postal worker became known via national media. **ISDH** offered prophylactic antibiotics to be taken at IRF employees' discretion.

Meanwhile, the Indianapolis **USPS Postal Inspector's Office** (USPI) was receiving calls from postal employees and the public. Similar calls came into the LPHA's "anthrax hotline". Criminal investigations were started for each call, but this soon overwhelmed local USPI's capacity. Ultimately the **State Public Health Laboratory** staff would handle over 1200 samples from local police and postal authorities for "potential anthrax contamination". Local false alarms heighten the strain on all responders over this event<sup>6</sup>. During October-November 2001 the public made over 70% of calls triggering investigations concerning discovery of an unknown suspicious substance from an unrecognized package, or from mail delivered from now-infamous contaminated postal facilities on the East Coast.

October 30: The Atlanta lab confirmed the IRF test results as positive. It appears this information was leaked from the lab to **NBC News**; and it was broadcast that night on a national news program. Indiana officials at all levels denied that there was confirmed anthrax contamination, because the definitive findings had not yet been relayed to them by the Atlanta lab. The NBC broadcast occurred some 18 hours before the LPHA (or other local emergency response partners) would be officially notified of the anthrax results.

The **LPHA Director** was contacted by her staff via her cell phone about the anthrax contamination story in the media. This was the first notice the LPHA received about the situation. Fortunately the LPHA Director and the LPHA staff had had prior experience in other anthrax letter hoaxes before 9/11, and had developed response protocols with local HAZMAT and law officials<sup>7</sup>. The Director had been working with CDC and other agencies to develop protocols for bioterrorism events.

A **regional office EPA official** also heard the news by radio communication from the State Environmental Management Agency (IDEM) as he traveled across the state. As the national environmental agency, he viewed EPA as the lead agency in addressing a public-contamination threat.

On October 31, LPHA, state, and private CFR leaders negotiated the unfamiliar jurisdictional territory to resolve how to coordinate the response to this potentially volatile sequel of the 9/11 anthrax bio-terrorism events. The IRF, LPHA, and EPA agreed to have one vote each as decisions were made on how to proceed. The LPHA Director met with IRF and the **local**

**HAZMAT** team to set up a 3-party Coordinating Team to organize response work, once direct confirmation of anthrax in samples was received.

The Coordination Team set up operations near IRF's airport facility. The LPHA Director issued Cipro scripts for all employees, as some may have been unknowingly exposed to the transferred equipment in their facility. An ISDH Field Epidemiologist met with returning employees to reassure them and answer their questions. The USPS brought in their own national-office media specialists for twice daily press conferences with local media to update them on surveillance and decontamination procedures.

EPA ordered that samples be re-taken in the IRF delivery and work areas, as the original Atlanta identifying numbers had been illegible on some samples, jeopardizing verification of areas of contamination, or for criminal evidence use. The regional EPA official ultimately requested State IDEM and local Fire Department HAZMAT teams to help with re-sampling as these units had the necessary bio-protective equipment.

Between November 4 and 12, the contaminated electronic equipment was cleaned with bleach solution. Decontamination with chlorine gas, boiling & radiation was not viable for this equipment. IRF's walls, floors, and workbenches were wiped with 10% bleach solution. The contaminated mechanical postal equipment was soaked with bleach and ultimately sent to HAZMAT dumps for disposal.

**ISDH State Laboratory** post-decontamination samples indicated no cross contamination in other IRF work areas. Later that week the LPHA Director declared the IRF facilities safe for employees to return to work.

On November 12 the employees returned to the IRF. Their employer offered protective boots and surgical masks for those who still had concerns. Fortunately no employee had developed symptoms of inhalation or cutaneous anthrax infection.

#### **Post-Script:**

In the following months following the 2001 events, the USPS engaged an outside management consultant(5) to interview all key governmental and private stakeholders in the October 2001 event, and to assemble important "lessons learned" from the Postal Services' perspective. That document was a primary reference source for this case study.

Use of a non-local, private-sector laboratory to take and evaluate biological samples is a likely response by major commercial or government entities. This slowed identification of the agent, and of which specific areas were contaminated at the Facility. More formal relationships have since been developed between ISDH, LPHA, the State University Medical School, and other local laboratories, all of which are now fully credentialed to analyze bio-hazardous materials. Guidelines are in place to assist HAZMAT triage of suspicious materials at the scene as biological versus chemical, and to determine which lab meets the priorities and jurisdictions for further handling the samples. Per current agreements, potential toxic substance threats to high profile, state or federal government officials will be handled by the ISDH laboratory; LPHA lab will handle city-county outbreaks, or backup other laboratories in mass-exposure events

Most of the key 2001 State and local stakeholders are still in their respective agency roles and were available for interviews. While the ISDH was involved almost immediately by the postal contractor perhaps due to national and USPS awareness of anthrax exposure risks, the LPHA

responsible for city-county control or outbreaks was not notified by either USPS or the ISDH until the confirmatory lab results were received. Rumor of the event, indicated by the local media in a cryptic voicemail at the LPHA, was only linked to the Repair Facility by subsequent news broadcasts and informal exchanges between LPHA and ISDH employees several days into the event. While some “suspicious powder” samples have still bypassed the LPHA, coordinated efforts with the ISDH continue to improve<sup>8</sup>.

The LPHA updated its emergency preparedness plan, identifying both secondary and tertiary staff and their contact numbers and pagers for each key staff response role in the agency., and protocols for this urban LPHA’s laboratory receipt and handling of “suspicious white powders”. Other LPHA initiatives included upgrading information technology, GIS, and telecommunications infrastructure to provide 24/7 response capacity, implementing a multidiscipline surveillance system, coordinating first responder training, and coordinating preparedness exercises and mutual aid agreements with state, county, and city law enforcement, fire, and EMS agencies under Homeland Security protocols<sup>9</sup>. The LPHA also gives preparedness assistance to other LPHAs surrounding Marion County, and updated its public information dissemination and emergency education programs. The role of the Public Information Officer, based in the Director’s Office is clearly delineated, for example, and any call which may be a potential outbreak alert will receive an immediate response from the Director’s Office, or other key responder staff .

Recent 2006 events: Inter-agency communication in the capitol city still presents challenges. On February 16, during the Legislative session, the Speaker of the House’s office received an anonymous letter containing a suspicious white powder and a note, which was opened by a staff member that morning. No one else was known to be “exposed”. A second letter was also found with white powder in the State House mail room<sup>10</sup>. Security officers first called the State Police the State Homeland Security office (SHS) and other fire, the LPHA and FBI offices were alerted immediately. The LPHA laboratory was asked to test the substance. The SHS closed the building some 2 hours later for about 40 minutes to further entry or exit to “make sure we don't spread the substance any further than it already has gone ”<sup>11</sup>. The legislature was not in session, and the building was never evacuated. Various committee hearings were scheduled for the afternoon, state offices were open, visitors were in the building, and free access to the building and offices about 1:30 was allowed when the preliminary results indicated the powder did not contain anthrax or other hazardous material. The suspicious letters eventually went to the FBI for evaluation and criminal investigation.

Each agency derives authority from separate levels, branches, and departments of government, and has goals and priorities varying from law enforcement, to public health, to environmental protection. Effective responses require both clear roles and expertise, as well as their coordination<sup>12</sup>. Do policies leave "disconnects" or gaps in required decision making? Although communication mechanisms and plans among State, local, and Federal, agencies exist, their details aren’t public. Experts note the resilience of these planning and response mechanisms is often largely untested<sup>13</sup>. Agency parochialism is always difficult to overcome. Each stakeholder has its own constituencies, culture, and information networks. Perceived loss of “control” in emergency responses may lead each partner to fall back on their more familiar roles and resources when faced with an emergency with a highly uncertain outcome.

## **Intra-agency Bio-Exposure Response Protocols: Some Assessment Issues.**

### ***Sources & direction of Outbreak Alert information flow:***

1. **Do emergency planning documents *imply* by examples of listed “key contacts” that outbreak alerts *normally* come from community *medical professionals* to Local Public Health Agencies (LPHAs)? Might the role of *citizens*, the *media*, or *specialized groups* (health care workers, school officials, etc.) as an outbreak alert source be *under-recognized*? The ASTDHPPHE Guidelines (2000) provide an example<sup>14</sup>:**

“The outbreak of infectious disease will almost always be identified by local, state, or federal public health agencies after public and private health care providers at the local level have diagnosed a significant number of cases of the disease to attract state or federal notice.” (p 7)

Non- medical outbreak alert sources are well-documented in past events<sup>15</sup>. Passive surveillance and informal provider communications work well when provider-LPHA partnerships are *well-established*. LPHAs may need to be more proactive in building information channels with local media, major local employers and other community stakeholders into their surveillance and emergency plans. Communication theory advocates segmenting potential audiences for specific information messages; perhaps the same could apply to developing segmented, but relevant, information sources<sup>16</sup>.

2. **In past events, has the agency been *bypassed*, or even “*blindsided*”, where outbreak alert sources contacted State; Federal health officials, other first-response agencies, or even the public-at-large?**

WHO and its regional-offices have initiated “*rumor surveillance*” that is, general monitoring of local media for reported incidents, verifying true events, and timely, effective dispelling of misinformation, by credible health officials(14). This builds the public’s trust and better recognition of the role of “public health assurance” in the post-9/11 and pandemic-threat environment

### ***Communication and Coordination Issues:***

3. **Do the emergency response-protocols address the role of *private-contractors* as potential “*key stakeholders*” in an outbreak?**

Contractors may appear as:

- a) a government-proxy among the *first-response* units,
- b) a contracted technical expert, and/or
- c) the contaminated/ *exposed facility or workforce* – which is under pressure to continue some key business or public sector service.

In an era of increasing “out-sourcing” by government and public services for information technology and database management; security; transportation & shipping; and production of essential health supplies, public health agencies will be challenged to identify, work with, and coordinate ever larger sets of partners and stakeholders in controlling future emergency events.

4. **Do protocols over-emphasize key players to whom staff should communicate during initial response ( i.e. planned, specified responsible parties; contact information, etc...) or do they emphasize *key professional, multidisciplinary public health & agency networked partners, with whom staff should solicit as well as share information?***

The difference is subtle, but may have major implications. Several authors indicate that while well designed and practiced command-and-control response plans succeed in familiar emergency events, for events with high uncertainty and perceived risk, a more flexible, skill-based planning may better respond in timely *verification and identification of exposure(s)* and rapid *assessment* of the situation's risk. Above all, these networks need to be used on some regular, non-emergency basis, to build trust and reliance among the members (15).

5. **As new protocols are developed for *inter-agency cooperation, communication and control of threats, such as “White Powder” Protocols, are these followed by the stakeholders as expected, when a new event occurs?* Is there a process of post-event evaluation?**

6. **Are plans regularly updated over time as community profiles; provider capacity; key stakeholders, or technologies change?**

7. **How well do the newer policies address *intra- and inter-stakeholder communication issues that arose in the first case?* What else might be done?**

## Case Study Timeline: October-November 2001

**10/23** The Indianapolis' Critical Repair Facility (IRF), a private federal US Postal Service (USPS) contractor, receives anthrax contaminated equipment.

IRF Director makes weekend calls to redirect all employees to another facility, instead of their usual workstations. He calls an independent Atlanta environmental hazard lab to come sample potentially contaminated areas.

**10/24** IRF Director contacts **State Department of Health**. Epidemiology staff plan media relations and field assessment roles. **ISDH** waits to order prophylactic Cipro until initial positive scans are confirmed by the Atlanta laboratory. Confirmatory tests take 1 week to process.

The **LPHA Director's office** receives a garbled voicemail from local media about the event. The Public Information Officer finds no IRF listing; calls reach only voicemails. Indianapolis IRF location still unclear.

**10/25-26** Death of Washington DC postal workers becomes known via national media. **ISDH** offers prophylactic Cipro to be taken at IRF employees' discretion.

Indianapolis **USPS Postal Inspector's** Office is overwhelmed by public calls. Command/ criminal investigation started on the local false alarms, which will strain all responders. Indianapolis-**FBI** office called, as on previous (false) local anthrax letter cases, to handle investigations and evidence collection.

**10/30** Positive anthrax test results confirmed by Atlanta lab; and are leaked by lab employee to **NBC**. Broadcast on national news 18 hours before the LPHA (& local partners) are notified. **LPHA Director, Regional EPA officer,** and **State Environmental Management** Agency alerted at this time.

**10/31** **LPHA Director** meets with IRF and local county HAZMAT leaders and sets up a 3-party Coordination Team to organize decontamination work. Parties agree response team and employee health "trump" all other concerns. LPHA Director issues Cipro scripts for all employees. State Field Epidemiologist reassures employees and answers questions.

**11/1** Coordination Team sets up operations near IRF's airport facility. **USPS** brings in its media specialists for daily media conferences.

**Regional EPA official** requests local Fire Department HAZMAT team for re-sampling help, because these units have the necessary protective equipment. New samples needed as originals have lost identification codes and were insufficient in number.

**11/4** **HAZMAT** Team decontaminates electronic equipment with bleach. Walls, floors, workbenches wiped with 10% bleach solution. Mechanical sorting equipment bleach soaked and sent to HAZMAT dumps for permanent disposal.

**SDH State Laboratory** sample results indicate no cross contamination in other IRF work areas. Its staff will handle over 1200 samples sent in by police and postal officials responding to calls from the public about "potential anthrax contamination".

**LPHA Director** declares the IRF facilities are safe for employees to re-enter.

**11/12.** CFR employees return to work.

## **Teacher's Guide: Breaking News**

1. What gaps do you identify in communication and coordination between the Local-and the State Health Departments' communication system in this case study?
2. Is a leader's main responsibility to assure key players know their roles and the protocol(s) for handling an emergency, or is it the leader's main role to identify key players and to develop institutional support for communication flow?
3. What attributes make a leader effective in organizing response and cooperation from other stakeholders during an emergency? Which attributes may limit their effectiveness?
4. How does a leader assure needed changes in emergency communication are made in the aftermath of an event? How would leaders determine how effective; persistent such changes were (or do revised plans just sit on a shelf)?

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<sup>2</sup> Buehler JW, Hopkins RS, Overhage JM, Sosin DM, Tong V. Framework for Evaluating Public Health Surveillance Systems for Early Detection of Outbreaks. *MMWR* 53 (RR05);1–11, 2004

<sup>3</sup> Centers for Disease Control and Prevention. Performance Criteria for Public Health Disease Reporting Systems Operating Twenty-four Hours per Day, Seven Days per Week (24/7); 2003. Available at: <http://www.cdc.gov/epo/dphsi/8city.htm>

<sup>4</sup> Dausey, David; Lurie, Nicole; Diamond, Alexis; Meade, Barbara; Molander, Roger C.; Ricci, Karen; Stoto, Michael A; Wasserman, Jeffrey. 2005 Tests to Evaluate Public Health Disease Reporting Systems in Local Public Health Agencies. RAND Corporation Santa Monica, CA ISBN 0-8330-3827-32005 for the U.S. Department of Health and Human Services

<sup>5</sup> G. Robert Williams, 2002 Terrorism Response, Risk Assessment and Mitigation. Case Study: Anthrax Cross Contamination Incident. USPS Critical Parts Center and the Indianapolis Repair Facility: Findings and Recommendations. Secure Logistixs Corporation

<sup>6</sup> Mott, Joshua A. Treadwell, Tracee A. Hennessy, Thomas W. Rosenberg, Paula A. Wolfe, Mitchell I. Brown, Clive M. Butler, Jay C. 2002, Call-tracking data and the public health response to bioterrorism-related anthrax *Emerging Infectious Diseases*. 8(10):1088-92.

<sup>7</sup> Bioterrorism alleging use of Anthrax, and Interim Guidelines for Management—United States. *MMWR* 1999, 48:69-74.

<sup>8</sup> Personal Communication, 1/25/06, LPHA Laboratory Director.

<sup>9</sup> Marion County Health Department web-site

<sup>10</sup> Mary Beth Schneider, February 16, 2006, *Indianapolis Star*, [mary.beth.schneider@indystar.com](mailto:mary.beth.schneider@indystar.com)

<sup>11</sup> “Powder-filled envelope temporarily closes Capitol: Officials say scare apparently result of a hoax”, By Patrick Guinane, 2/16/06 [www.nwitimes.com](http://www.nwitimes.com)

<sup>12</sup> Potter, M.A.; Sweeney, P.; Thomas, C.; Miller, T.M.; Gourley, T., Connecting Silos: The Legal Bases for Public Health Emergency Response in Pennsylvania. *Journal of Public Health Management & Practice*. 11(6) (Supplement):S50-S56, November 2005

<sup>13</sup> Stopford BM, Jevitt L, Ledgerwood M, Singleton C, Stoltmack M. Development of Models for Emergency Preparedness. Rockville, MD: Agency for Healthcare Research and Quality. AHRQ Publication No. 05-0099. August 2005.

<sup>14</sup> ASTDHPPHE: *Model Emergency Response Communications Planning for Infectious Disease Outbreaks and Bioterrorist Events* 2001, Second Edition. Association of State and Territorial Directors of Health Promotion and Public Health Education.

<sup>15</sup> Samma G., Patel, M., Olowokure, B., Roces, MC, Oshitani H., and the WHO Outbreak Response team, 2005 Rumor Surveillance and Avian Influenza H5N1, *Emerging Infectious Diseases*, 11(3):463-66.

<sup>16</sup> Friemuth V, Linnan H, and Potter, P, 2000 Communicating the threat of emerging infections to the public, *Emerging Infectious Diseases*, 6(11): 336-345.