

***PALM BEACH COUNTY  
HEALTH DEPARTMENT  
RESPONSE TO  
ANTHRAX  
BIOTERRORISM***

CASE STUDY PRESENTATION  
EMERGING LEADERS IN PUBLIC HEALTH  
KELLOGG FELLOWSHIP

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# ***PALM BEACH HEALTH DEPARTMENT RESPONSE TO ANTHRAX BIOTERRORISM***

## **PALM BEACH COUNTY HEALTH DEPARTMENT**

Palm Beach County Health Department (PBCHD), the largest Health Department in Florida, serves the health care needs of the residents of Palm Beach County. The county, which is located on the southeast coast of Florida, has a population of 1,131,184 according to the 2000 US Census. During the winter months, population in the county may rise by an estimated 4.5 million persons due to the influx of tourists and residents returning for the winter months. Its three major industries are tourism, construction and agriculture.

PBCHD has 900 full time employees, 500 part-time employees and a budget of \$44 million. They have an engineering department with 97 employees, and the largest epidemiological staff in the state with 14 employees (See Appendix #1 Organizational Chart). Currently the Health Department has 6 Health Centers spread throughout the county.

## **ANTHRAX HITS PALM BEACH COUNTY**

Before October 2001, the last case of inhalational anthrax in the United States had occurred in 1976. Early on October 2, a 63-year-old journalist named Bob Stevens fell into a coma in a Palm Beach County Hospital. He had contracted what was soon to be confirmed as anthrax. The case drew national attention and it was the beginning of the first confirmed case of intentional anthrax release in the country.

Anthrax rarely strikes humans unless they work in slaughterhouses or have other close contact with grazing animals. Stevens worked in an office park. Anthrax is an acute infectious disease caused by *Bacillus anthracis*, a spore forming, gram-positive bacillus. Human anthrax infection can occur in three forms: pulmonary, cutaneous, or gastrointestinal, depending on the route of exposure. Of these forms, pulmonary anthrax is associated with bioterrorism exposure to aerosolized spores. It is characterized by flu-like symptoms after inhalation of infectious spores, followed by a possible brief interim improvement. Two to four days after initial symptoms, sudden onset of respiratory failure occurs. Blood culture will show evidence gram-positive bacilli, after the first two or three days of illness. The disease is treatable in early stages. Mortality is extremely high even if the patient is under antibiotic treatment if it is initiated after onset of respiratory symptoms.

The Local Health Department with key player organizations detected two cases of inhalation anthrax among workers of a Florida Media Company. One case resulted in death of the patient. The source was found in mail sent to the American Media Incorporated (AMI) building. Findings revealed anthrax transmission and widespread environmental contamination throughout the workplace and at a lesser extent in six local postal facilities, which most likely resulted from two letters containing *B. anthracis* spores delivered to the workplace. No cases were diagnosed within the postal workers. Nasal cultures were positive in less that 0.1 percent of people tested. The anthrax event was conducive to a public health threat, a criminal investigation, a natural security threat and loss of life, and from the Health Department perspective, it caused a communication crisis.

## **EVENTS UNFOLD**

On October 2 2001, Dr. Jean Malecki, Director of the PBCHD, was notified by Mr. Stevens' physician of his anthrax suspicions. Immediately Dr. Malecki with her colleagues at the Health Department began, dealing with what they assumed was the possible worst scenario, anthrax. The

Public Health Department had a very proactive approach in emergency and terrorism preparedness. When the anthrax case occurred, they had already placed themselves on alert because of September 11. For three years prior to September 11, both the health department and their partners in Palm Beach County had been preparing for bioterrorism via seminars, trainings, satellite broadcasts, tabletops, and full-scale exercises.

While the specimens were on their way to the state lab, the leadership of the PBCHD followed the CDC's recommended procedure of notifying the Florida State Health Department (FSHD) and the Centers for Disease Control and Prevention (CDC) in order to obtain the needed lab support.

The PBCHD began the epidemiological investigation on October 3, without confirmation of anthrax. They acted based on clinical information, as well as, preliminary laboratory studies. They took the risk of spending public money as local health officers without a confirmed lab result. They were exposing themselves to criticism in the event that it was a false alarm. Their initial response and actions even though based on unconfirmed information showed true leadership. Their initial response gave the Public Health Department a 36-hour lead-time on a lethal problem that could have killed many people. Conclusive lab results did not come in until the afternoon of October 4.

Immediately after the lab anthrax confirmation, they held the first press briefing and calls started to pour from media sources all over the country. The information message was very well done, it reflected the evidence as they knew it at the time, and it informed the public that they were moving the investigation headquarters to the Emergency Operations Center (EOC).

## **KEY PLAYERS**

The initial planning team was composed of just Palm Beach Health Department employees and it included Dr. Kumar, Senior Physician Director-Epidemiology; Barbara F Johnson, Sr. Community Health Nursing Supervisor-Epidemiology; Judith M Cobb, Community Health Nursing Consultant-Lead Interviewer; Dianne Strock, Environmental Manager- Environmental Health & Engineering; John O'Malley Environmental Administration- Environmental Health & Engineering; Dr. Malecki, Director Public Health Department-Lead Investigator. The Department did not hire any additional staff. As a primary care provider, the department mobilized its staff to perform the exposure tests. Employees involved included 10 doctors, 2 epidemic intelligence service officers, 30 nurses, 20 clerical support staff, 10 laboratory technicians, 10 nurses' aids, 6 pharmacists and technicians and several administrators (See Appendix #2 for Human Resources Log).

Subsequently, the actions taken by the PBCHD included active and expanded surveillance, environmental investigation, including the establishment of multi-agency assessment teams, communications, and clinical evaluation of potentially exposed individuals. The CDC, the State Health Department and the Federal Bureau of Investigation (FBI) were principal collaborators with the Health Department on addressing the crisis.

The key interagency collaborators were: Dr. Steven Miersma, an epidemiologist from the State of Florida Health Department together with 20 to 40 Epidemic Intelligence Service officers. They assisted Dr. Malecki and the Health Department on instituting the EOC and media control. Dr. Jeffrey Koplan, Director of CDC provided the necessary leadership as they were asked to do and brought about the full support of his staff and laboratory. The CDC took over space at the state lab in Miami, and the U.S. Army Medical Research Institute of Infectious Disease laboratory was present as well. They had a CDC lab in Atlanta and a reference lab in Arizona working for them 24 hours a day, seven days a week. Even with the added lab support, the CDC and state labs were heavily overloaded in terms of tests that needed to be run. Another challenge was that the protocol

for shipping potentially hazardous materials to distant labs was complicated. This originated time delays and added burden on health department employees.

State and local health officials worked closely with medical professionals in Florida and across the nation to monitor hospitals and outpatient clinics for any possible additional cases of anthrax. Partnerships were also established with veterinarians and medical examiners to conduct clinical investigations.

The federal government, particularly the CDC, took the case very seriously, as did a number of non-traditional partners including the FBI, the Florida Department of Law Enforcement, and the local police. Each partner was readily available, making it easy to share information right away. The Environmental Protection Agency (EPA) was involved in the investigation of the AMI Building and the investigation and clean up of the postal facilities.

Dr. John Agwunobi, Secretary of Health, State of Florida was involved with communications efforts the media. The Governor of Florida allowed the Federal government to take over the role of handling the case.

## **RESPONSE PLAN**

The Health Department led the first seven days of the investigation, with law enforcement officials working by their side. Later on, the primary agencies involved, Palm Beach County Health Department, Florida State Health Department, Florida Department of Law Enforcement, CDC, and the FBI, created the following response teams: Epidemiology Team, the Clinical Team, the Surveillance Team, the Environmental Assessment Team and the Communication Team.

The environmental team dispatched three teams to cover Mr. Stevens' home, recreationally visited places and workplace. Through their quick environmental assessment, it became apparent that the AMI building where Mr. Stevens worked was implicated. They found bacillus anthracis isolated on Mr. Stevens' keyboard, and also identified co-workers who could have been ill and hospitalized. The bacillus anthracis was isolated in a man, Ernesto Blanco, who did not appear to have anthrax and worked in the AMI mailroom. It was this preliminary epidemiological investigation that led them to close the building on October 7, concluding that there had been an intentional release of anthrax. From the beginning, their public health response was to implement the needed measures without waiting for confirmation. The EPA was involved later on in the investigation of the AMI Building and the investigation and clean up of the postal facilities. No postal facilities were closed. The AMI building remained closed for an extended period due to contamination throughout.

The epidemiological team, surveillance and clinical teams coordinated the evaluation of all clinical data from hospitals and medical examiner records. They monitored all laboratories for any gram-positive bacillus. They conducted the investigation both prospectively and retrospectively, back to September 11. Through this investigation, it was discovered that Mr. Stevens had traveled to North Carolina during the 60-day period they investigated. They also established collaborations with North Carolina health departments. However, communication was mishandled and these agencies were not properly briefed on the Florida case. Much of the information they received came from the press.

The communication team's mission was to handle media and public requests, and press conferences. In the early stages of the investigation, everyone interviewed together during press conferences. Each organization answered only those questions related to their involvement in the investigation. This allowed key players to just cover their specific areas of expertise, and provided the public with accurate information. The assigned spokespeople for the investigation were Dr.

Wiersma and Dr. Malecki. Media inquiries at the peak of the event reached over 100 calls per hour. The way they addressed this demand was to hold daily press briefings. They also had three public information staff attending calls.

On October 5, Robert Stevens died of Anthrax. The media inquiries immediately shifted to link the case to bioterrorism. Dr. Wiersma responded that one case could not determine such event.

On October 7, when the second AMI employee, Ernesto Blanco, was diagnosed with having been exposed to anthrax the situation became a criminal investigation, and communication crisis started to unfold. The Governor's Office issued a hold order on press releases and briefings. Reasons were concerns of the National Security Council that sensitive information might be released.

Twelve hours after the AMI building closing, the PBCHD had to contact 1,100 individuals to be screened and receive medication if they had been exposed. Calls were made over night through a computer based call system. They also distributed a flier the next day at the building site, and a database was created to track down individuals who had not received the message or the flier, along with those no longer employed by the Company. The media played a critical role in this notification campaign, through public announcements and advertisement. Nasal cultures were the test of election. However, they found that while these are good for epidemiological investigation purposes, they do not yield high on a screening test. Decisions to provide treatment were solely based on exposure risk.

Within twelve hours, medication packages from the National Pharmaceutical Stockpile started to arrive. The medications needed to be unpacked and labeled, which delayed providing medication for another hour. AMI employees were screened and received medication if they had been exposed. At the postal facilities, Public Health Department employees were available around the clock to explain anthrax's potential risk to those concerned. Since the risk of anthrax exposure was low there, they did not recommend medication, but gave it to those who requested it. This strategy reflected the fact that the PBCHD's immediate intent was to save lives and reduce fear. However, they did not plan at the beginning for the psychological impacts resulting from the anthrax scare. They overlooked people demonstrating post-traumatic stress syndrome.

## **OTHER CHALLENGES FACED**

The interagency collaboration created unique challenges for the Public Health Department personnel throughout the anthrax response process. Some of these challenges were presented by the multiple databases used for tracking information. This was particularly a problem with lab sample databases.

First responder's safety was inconsistent and delayed the ability of the environmental team to access the AMI building. The FBI relied on FBI medical experts, EPA relied on EPA medical experts, and the local sheriff decided to go with the most conservative approach. Depletion of local supplies of CIPRO quickly occurred. Investigators and officers from all agencies would demand CIPRO prophylaxis just to get near possible contaminated sites. This was allowed because of the fear factor and because of the inadequacies of medical science. There was no standard procedure for determining who would or would not take the medication, and medication was just given upon request.

Clinicians and Providers also were a challenge. Many of them were untrained in biological disease response; they were in fear and some of them even refused to see possible anthrax victims. Lack of involvement from hospitals and doctors in the private community was frustrating for the local health department officials. The Health department created a 1-800 response line for AMI building employees, and one for postal employees. Anyone who called was able to speak directly to a

physician. Palm Beach County Health Department also treated individuals who were not being seen by primary care physicians for various reasons, including lack of medical insurance.

At the time of the Anthrax crisis, the PBCHD was also dealing with the following events: Hurricane Michelle, West Nile Virus Alert, a death due to Legionnaires Disease, Ciguatera Toxin Poisoning. They responded to over 900 anthrax hoaxes, and each one was treated as a possible threat. From the financial point of view, expenses incurred with the Anthrax crisis were absorbed into the PBCHD budget. A state of emergency was not declared and the Department never qualified for emergency funds. (See Appendix #3 Anthrax Expenses)

On October 9, Dr. Agwunobi Director of the Florida Health Department was the person to brief the media. The information that he related on that press conference was limited to thanking the media for coming, and acknowledging the efficient work the key agencies involved were performing. He ignored the basic public interest points. The media was very upset, since they were being silenced in what was probably the biggest news day since the discovery of anthrax in Palm Beach County. Dr. Agwunobi held other interviews the following days at many news outlets. He made a poor representation of the event and his level of confidence was low. This was a challenge for the Public Health Department officials. Until that moment, the public's perception was one of confidence because they were well informed.

On October 10, the FBI and the Justice Department issued a stop order on a scheduled news conference. Unfortunately, once local public health was prevented from delivering these messages, information was not as timely and detailed enough. Public fears then started to increase. From that moment on, the Department of Justice took the lead position in all media inquiries. The main message they transmitted to all agencies involved was to keep quiet. All calls had to be forwarded to the Department of Justice and FBI. The next briefing was given by the FBI and contained mainly Public Health Information. This message that was intended to calm fears took another meaning when presented by law enforcement officials and did not achieve the desired results.

In less than a week, it became evident that the new approach to handle media communications was not working efficiently. Even though no new cases of anthrax surfaced, and only two confirmed exposures based on nasal swab screening were positive and treated successfully, public mistrust and fear, as well as media requests were on the rise.

Finally, on October 16, the Governor gave the last press conference related to the anthrax event in Palm Beach County. The press conference included points related to the job all agencies involved had done through the crisis. That evening, local agencies were allowed to talk to the media directly about their area of expertise. Allowing the media to work again directly with public health created a renewed public trust and interest in what was occurring. No more cases of anthrax were reported in Palm Beach County.

## **LESSONS LEARNED**

There was an effective response to this bioterrorism emergency by the PBCHD's leadership, especially since this was the first incident of airborne anthrax exposure since 1976. The excellent infrastructure for investigating and monitoring the case was evident. However, this event was an unfamiliar one for many public health and law enforcement officials and there are several issues that surfaced from their experience that should be addressed in the future.

The sudden change of media handling from local, to state to federal created public distrust and false implications. Federal, State and Local Emergency Response agencies should give careful consideration and work together to define how to transition media handling and keep direct lines of communication open within the agencies.

The PBCHD's focus on public health took much of their attention, and staff did not keep direct contact with local politicians and state officials. They should plan in future crisis to keep them well informed and briefed. This will benefit the Department by having a strong presence of Government in their public health message and open possibilities of financial support.

Clinicians need to know that health officers are available and responsive in events such as this. The PBCHD needs to commit to further educate and engage physicians who are an integral part of the local public health system.

The PBCHD did not plan for the psychological impacts resulting from the anthrax scare. Impacts became clear later on. Embracing people who worked at AMI and in the postal facilities was an important component that was neglected at the beginning. Challenges were also presented by the multiple databases used for tracking information, particularly with lab sample databases.

Finally, recruitment, maintenance and training of a highly effective public health workforce would continue to play a key role in successfully addressing bioterrorism events in the years to come.

### **TEAM RECOMMENDATIONS**

Key players learned that the flow of information to the public was hampered once the case became a criminal investigation. Even in the midst of the criminal investigation, public health advisories must flow to those involved and the public to avoid widespread panic, which can hinder the progress of the investigation.

A media plan should be developed that allows the public local health agencies to take the lead from the beginning of the event and be able to participate in media communications and briefings through the end of the crisis. If there are other locations involved outside the jurisdiction of the local public health agency, communications and current information should be constantly exchanged so the message presented to the public is the same across the board.

Further training is needed to help public health officials be comfortable and efficient in handling a criminal investigation. This group will have to be flexible and versatile in handling a case of this nature. Further intervention with the FBI and local law enforcement must continue during training exercises and actual investigations. A task force concentrating on bioterrorism could be implemented with the collaboration of law enforcement and other health agencies to focus on improving strategies for dealing with these emergencies.

Another area of concern was the inability to channel clients to some hospitals and local physicians who were afraid to handle the referrals because of penitential contamination. This verified a need for further training and to pull some of the local physicians and hospitals into the emergency response network.

The Health Officer also stressed the need for a mandatory central data management system in order to track data and to ensure that all team members have access to all the pertinent data to make critical decisions.

Mental health needs must be part of any bioterrorism response from the early stages.

The PBCHD should host seminars and workshops on biological and chemical terrorism. They should find ways to motivate and involve hospitals and doctors in the private community. Have a plan in place for patients that will come to the health department due to the lack of private

physicians in the community willing to see potentially exposed individuals and for individuals that lack medical insurance.

### **BENCHMARK PRACTICES FOR OTHER CRISIS SITUATIONS**

The PBCHD was proactive in its response to the inhalation anthrax case associated with the AMI building. A key decision to initiate the epidemiological investigation as early as October 3 was critical to the case and helped the staff to save valuable time and possibly lives. The Health Officer and his team were very perceptive when they decided to move ahead without conclusive lab results. This investigation was implemented with benchmark practices in that the Palm Beach County Department of Health utilized all its resources and all those made available to them. The fact that the Department was able to quickly establish and lead an interagency collaboration was key to the successful investigation of this case. Recruiting and retaining a competent public health workforce should be a priority. Public Health Departments like PBCHD, need to have the capacity to act as the lead by organizing all available resources, mobilizing personnel, analyzing the situation, advise on necessary actions, and prepare for the arrival of numerous agency partners.

The Department was already on alert and prepared to handle an emergency. They had been training for 3 years on how to respond bioterrorism via seminars, tabletop exercises and actual enactments. The team was prepared and equipped to deal with the crisis. The collaboration of key partners was also critical in the investigation of the case.

The fact that the Palm Beach County Department of Health was able to alert its partners early on and support a collegial relationship in a multi-agency response speaks volumes about the leaders involved in this case. They accomplished their mission because they were focused on the case and not bickering over territory line. The infrastructure utilized was textbook syndromic surveillance with all partners aligned to solve the case. The investigation team was comprised of all the key elements necessary for a successful investigation of this type. The teams organized to coordinate the investigation was composed of the following areas: Epidemiology, Clinical, Surveillance, Environmental Assessment and Communication.

The lead agency must maintain control of the situation and as soon as a designated spokesperson is available with facts, the local media should be notified. In this case, PBCHD used the media to their advantage, especially when they were trying to locate individuals with possible exposure. A good relationship with the local media will assist the agency in getting all necessary information to the required sources.

The investigation was focused and thorough. There were 1076 nasal swabs, 125,000 clinical specimens and approximately 1 million environmental specimens performed in conjunction with this case. No anthrax was detected among 3263 postal workers tested in 51 Palm Beach County postal facilities. Over 1100 individuals were treated because of potential exposure. As the result of this type of bioterrorism, the CDC has implemented a rapid response team to be deployed in cases of this nature that are specialist in field operations, epidemiology, microbiology data management and communication to offer support to the local agencies.

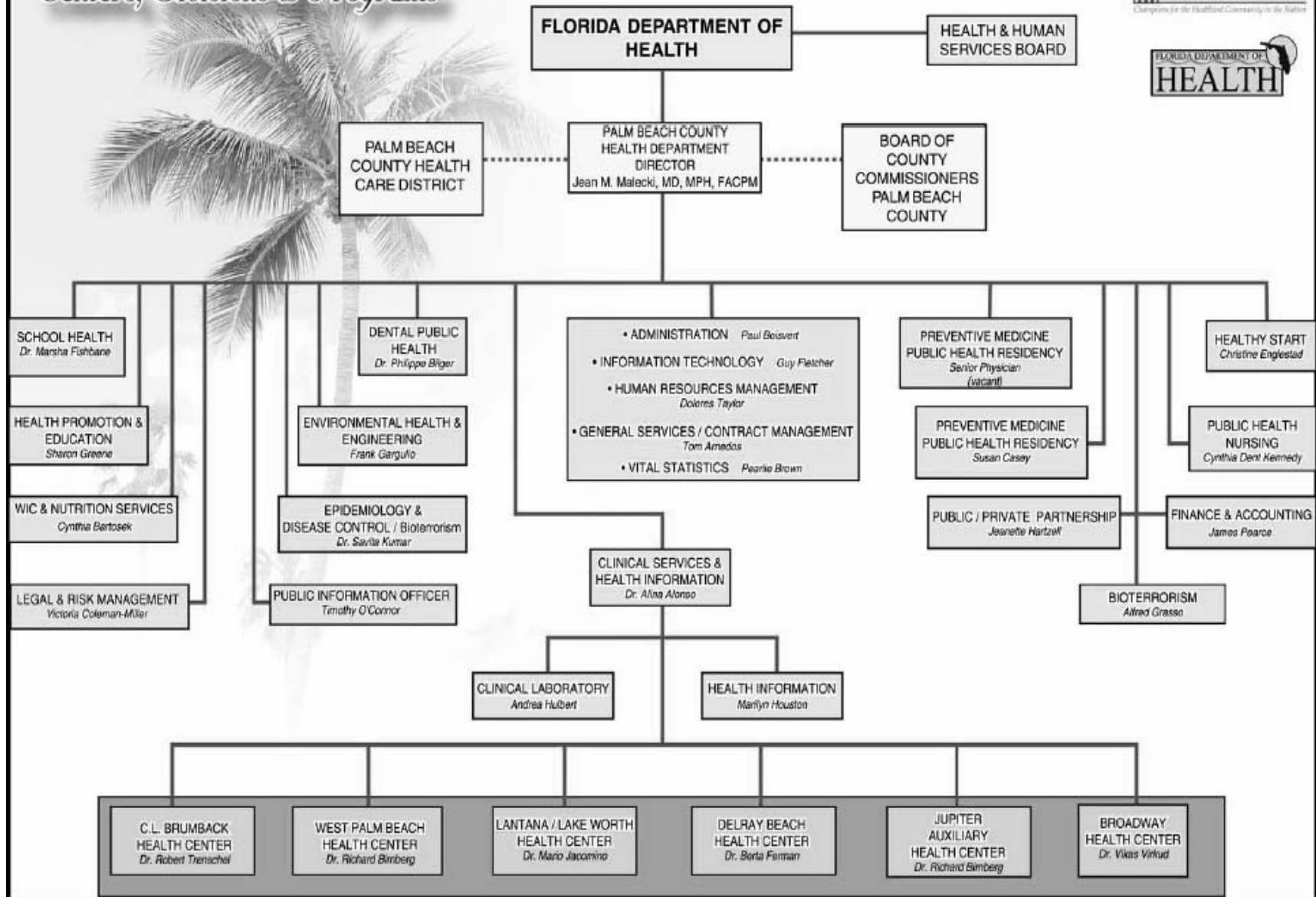
***APPENDIX # 1***

***PALM BEACH HEALTH DEPARTMENT***

***ORGANIZATIONAL CHART***

# Palm Beach County Health Department

## Centers, Divisions & Programs



***APPENDIX # 2***

***PALM BEACH COUNTY HEALTH DEPARTMENT***

***HUMAN RESOURCES LOG***

## Master List of PBCHD Staff Responding to Anthrax

	<b>Employees Name</b>	<b>Center</b>	<b>Work Location</b>
1	Alonso, Alina	Admin/Clinical Services	826 Evernia Street - West Palm Beach, FL 33401
2	Castillo, Teresa	Admin/Clinical Services	826 Evernia Street - West Palm Beach, FL 33401
3	Ehrhart, Kathleen	Admin/Clinical Services	826 Evernia Street - West Palm Beach, FL 33401
4	Houston, Marilyn	Admin/Clinical Services	826 Evernia Street - West Palm Beach, FL 33401
5	Coleman-Miller, Vicki	Admin/Legal	826 Evernia Street - West Palm Beach, FL 33401
6	Garsik, Daryl	Admin/Legal	826 Evernia Street - West Palm Beach, FL 33401
7	Sullivan, Barbara	Admin/legal	826 Evernia Street - West Palm Beach, FL 33401
8	Boisvert, Paul	Administration	826 Evernia Street - West Palm Beach, FL 33401
9	Casey, Patricia	Administration	826 Evernia Street - West Palm Beach, FL 33401
10	Freeman, Flo	Administration	826 Evernia Street - West Palm Beach, FL 33401
11	Malecki, Jean	Administration	826 Evernia Street - West Palm Beach, FL 33401
12	O'Connor, Tim	Administration	826 Evernia Street - West Palm Beach, FL 33401
13	Baker, Betty, DO	Belle Glade Health Center	38754 State Road 80 - Belle Glade, FL 33430
14	Daniels, Sandra S.	Belle Glade Health Center	38754 State Road 80 - Belle Glade, FL 33430
15	Griffith, Annie Lois	Belle Glade Health Center	38754 State Road 80 - Belle Glade, FL 33430
16	Hernandez , Ruth	Belle Glade Health Center	38754 State Road 80 - Belle Glade, FL 33430
17	Kemp, Meline	Belle Glade Health Center	38754 State Road 80 - Belle Glade, FL 33430
18	Lewis, Janet	Belle Glade Health Center	38754 State Road 80 - Belle Glade, FL 33430
19	Mike, Cynthia	Belle Glade Health Center	38754 State Road 80 - Belle Glade, FL 33430
20	Pugliese, Dale	Belle Glade Health Center	38754 State Road 80 - Belle Glade, FL 33430
21	Trenschel, Robert	Belle Glade Health Center	38754 State Road 80 - Belle Glade, FL 33430
22	Payton, Lynette	Broadway Health Center	301 Broadway Ave - Riviera Beach, FL 33404
23	Treadwell, Cynthia R.N., MSN	Broadway Health Center	301 Broadway Ave - Riviera Beach, FL 33404
24	Virkud, Vikas M.D.	Broadway Health Center	301 Broadway Ave - Riviera Beach, FL 33404
25	Wilson, Angela	Broadway Health Center	301 Broadway Ave - Riviera Beach, FL 33404
26	Addeo, Carol	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
27	Anthony, Felicia	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
28	Castro, Elsa	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
29	Clark, Deloise	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
30	Dames, Joy	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
31	Deneus, Merline	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
32	Desir, Jean	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
33	Dortch, Sabrina	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
34	Dr.Tabuteau	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
35	Ferman, Berta	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
36	Ferrus,Yanick	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
37	Forrest,Dorothy	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
38	Frances, Elaine	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
39	Garvin, Mary	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
40	Giamatt, Sandy	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
41	Go, George	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
42	Green, Vivienne	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
43	Jamies, Toni	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
44	Johnson, Brenda	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
45	Jones, Stella	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
46	Joseph, Hyguette	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444

47	Maldonado, Rafaela	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
48	Monawar, Sara	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
49	Morin,Manon	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
50	Neil, Karlene	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
51	Nine, Suzette	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
52	Ormsby,Alan	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
53	Osteen,Nancy	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
54	Purr, Barbara	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
55	Sainvil, Marie	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
56	Sims, Ethel	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
57	Sine, Albert, MD	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
58	Slurff,Nancy	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
59	Sutton, Kathy	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
60	Tabuteau, Dr. Jean-Claude	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
61	Talavera,sonia	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
62	Vaides, Lionel	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
63	Williams, Reloise	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
64	Williams, Shantel	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
65	Wilson, Mary	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
66	Yalamanchi, Dr. S.	Delray Beach Health	225 S. Congress Ave - Delray Beach, FL 33444
67	Al-buhaisi, Hassan	Environmental	901 Evernia Street - West Palm Beach, FL 33401
68	Asrani, Umesh	Environmental	901Evernia Street - West Palm Beach, FL 33401
69	Beckner-Cook, Paige	Environmental	901 Evernia Street - West Palm Beach, FL 33401
70	Brown, David	Environmental	901 Evernia Street - West Palm Beach, FL 33401
71	Carter, James	Environmental	901 Evernia Street - West Palm Beach, FL 33401
72	Catanzaro, Michael	Environmental	910 Evernia Street - West Palm Beach, FL 33401
73	Duque, Arturo	Environmental	901 Evernia Street - West Palm Beach, FL 33401
74	Echols, Mary	Environmental	910 Evernia Street - West Palm Beach, FL 33401
75	Gargiulo, Frank J.	Environmental	901 Evernia Street - West Palm Beach, FL 33401
76	Grasso, Alfred	Environmental	901 Evernia Street - West Palm Beach, FL 33401
77	Graziani, Darrel	Environmental	901 Evernia Street - West Palm Beach, FL 33401
78	Harp, Louise	Environmental	901 Evernia Street - West Palm Beach, FL 33401
79	Hill, Albertha	Environmental	901 Evernia Street - West Palm Beach, FL 33401
80	Hudson, Linda	Environmental	901 Evernia Street - West Palm Beach, FL 33401
81	Jenks, Robert	Environmental	901 Evernia Street - West Palm Beach, FL 33401
82	Kalamaras, Paul	Environmental	901 Evernia Street - West Palm Beach, FL 33401
83	Liebler, Martin	Environmental	901 Evernia Street - West Palm Beach, FL 33401
84	Miller, Randall	Environmental	901 Evernia Street - West Palm Beach, FL 33401
85	O'Malley, John	Environmental	901 Evernia Street - West Palm Beach, FL 33401
86	Satyal, Ajaya	Environmental	901 Evernia Street - West Palm Beach, FL 33401
87	Selvendran, Selva	Environmental	901 Evernia Street - West Palm Beach, FL 33401
88	Smith, Donald	Environmental	901 Evernia Street - West Palm Beach, FL 33401
89	Stormer, James	Environmental	901 Evernia Street - West Palm Beach, FL 33401
90	Strock, Dianne	Environmental	901 Evernia Street - West Palm Beach, FL 33401
91	Superville, Ronda	Environmental	901 Evernia Street - West Palm Beach, FL 33401
92	Weaver, Lois	Environmental	901 Evernia Street - West Palm Beach, FL 33401
93	Barrett, Kimberly	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
94	Barron, Jose C	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
95	Bartleman, Joan	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404

96	Brown, Alice	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
97	Cobb, Judith	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
98	Correa, Andre	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
99	James, Vanessa	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
100	Johnson, Barbara	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
101	Kalson, Vince	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
102	Kumar, Savita	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
103	Lewandowski, Cynthia	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
104	Lott, Shiela	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
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106	Mills, Lynette	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
107	Montalvo, Elba	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
108	Moore, Lolita	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
109	Morales, Enrique	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
110	Norfleet, Tara	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
111	O'Malley, Barbara	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
112	Pagan, Denise	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
113	Parikh, Devabala	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
114	Roberson, Andria	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
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116	Roberts, Helen	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
117	Ross, Judith	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
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119	Strong, Cynthia	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
120	Stubblefield, Angelique	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
121	Walker, Debra	Epidemiology	1050 W 15th Street - Riviera Beach, FL 33404
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125	Whitehead, Robin	Finance & Accounting	909 Evernia Street - West Palm Beach, FL 33401
126	Alexander, Walter	General Services	1050 W 15th Street - Riviera Beach, FL 33404
127	Brooks, Gail	General Services	1050 W 15th Street - Riviera Beach, FL 33404
128	Daniels, Michael	General Services	1050 W 15th Street - Riviera Beach, FL 33404
129	DeVose, Terry	General Services	1050 W 15th Street - Riviera Beach, FL 33404
130	Glassman, Robert	General Services	1050 W 15th Street - Riviera Beach, FL 33404
131	Moore, Raymond	General Services	1050 W 15th Street - Riviera Beach, FL 33404
132	Moreno, Frank	General Services	1050 W 15th Street - Riviera Beach, FL 33404
133	Oxendine, Paula	General Services	1050 W 15th Street - Riviera Beach, FL 33404
134	Petereit, Lee	General Services	1050 W 15th Street - Riviera Beach, FL 33404
135	Romano, Mary	General Services	1050 W 15th Street - Riviera Beach, FL 33404
136	Stewart, Carol	General Services	1050 W 15th Street - Riviera Beach, FL 33404
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142	Bash, Jill	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
143	Cole, Janet	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
144	Costelloe, Valerie	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462

145	Defazio, Denis	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
146	Englestad, Christine	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
147	Levine, Martha	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
148	Marrow, Gale	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
149	Paukstelis, Aldona	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
150	Paukstelis, Aldona	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
151	Pearce, Sandra	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
152	Schappert, Catherine	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
153	Schappert, Catherine	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
154	Starline, Connie	Healthy Start	1199 W Lantana Rd BLDG2 - Lantana, FL 33462
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159	Carmalt, Diana	Information Technology	910 Evernia Street - West Palm Beach, FL 33401
160	Fletcher, Guy	Information Technology	910 Evernia Street - West Palm Beach, FL 33401
161	Balkaran, Tricia	Laboratory	826 Evernia Street - West Palm Beach, FL 33401
162	Diaz, Jesus	Laboratory	826 Evernia Street - West Palm Beach, FL 33401
163	Dos Santos, Debbie	Laboratory	826 Evernia Street - West Palm Beach, FL 33401
164	Hughes, Tonya	Laboratory	826 Evernia Street - West Palm Beach, FL 33401
165	Hulbert, Andrea	Laboratory	826 Evernia Street - West Palm Beach, FL 33401
166	Johns, Karen	Laboratory	826 Evernia Street - West Palm Beach, FL 33401
167	Martin, Laverne	Laboratory	826 Evernia Street - West Palm Beach, FL 33401
168	Middleton, Ramar	Laboratory	826 Evernia Street - West Palm Beach, FL 33401
169	Moore, Sylvia	Laboratory	826 Evernia Street - West Palm Beach, FL 33401
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175	Graham, Erica	Lantana/LW Health Center	1250 Southwinds Drive - Lantana, FL 33462
176	Jacobs, Cheryl	Lantana/LW Health Center	1250 Southwinds Drive - Lantana, FL 33462
177	Jacomino, Mario	Lantana/LW Health Center	1250 Southwinds Drive - Lantana, FL 33462
178	Nelson, Stacy	Lantana/LW Health Center	1250 Southwinds Drive - Lantana, FL 33462
179	Noel, Dorothy	Lantana/LW Health Center	1250 Southwinds Drive - Lantana, FL 33462
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187	Smith, Mattie	Residency Program	826 Evernia Street - West Palm Beach, FL 33401
188	Gloster, Johnnie	Riviera Beach Health Cntr	851 Avenue P - Riviera Beach, FL 33404
189	Ruth, Roberta	Riviera Beach Health Cntr	851 Avenue P - Riviera Beach, FL 33404
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191	Sharpe, Amelia	School Health	826 Evernia Street - West Palm Beach, FL 33401
192	Tillman, Nellie	School Health	826 Evernia Street - West Palm Beach, FL 33401
193	Anderson, Joyce	School Health	826 Evernia Street - West Palm Beach, FL 33401

194	Banton-Fletcher, Sophia	School Health	826 Evernia Street - West Palm Beach, FL 33401
195	Beard, Michael	School Health	826 Evernia Street - West Palm Beach, FL 33401
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197	Drayton, Julia	School Health	826 Evernia Street - West Palm Beach, FL 33401
198	Fishbane, Marsha	School Health	826 Evernia Street - West Palm Beach, FL 33401
199	Brickhouse, Leone	Volunteer	135 Windsor G - West Palm Beach, FL 33417
200	Gephart, Phyllis	Volunteer	3658 Alder Drive - West Palm Beach, FL 33417
201	Kostes, Florence	Volunteer	156 Windsor G - West Palm Beach, FL 33417
202	Marcellaro, Elizabeth	Volunteer	240 Sussex L - West Palm Beach, FL 33417
203	Seaman, Patricia	Volunteer	3 Mayfair Lane - Boynton Beach, FL 33462
204	Hartzell, Jeanette	Volunteer Services	826 Evernia Street - West Palm Beach, FL 33401
205	Santos, Uta	Volunteer Services	826 Evernia Street - West Palm Beach, FL 33401
206	Arango, Maria	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
207	Birnberg, Richard	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
208	Daniels, Tanya	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
209	Emanuel, Adrienne	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
210	Erie, Margaret	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
211	Gayle, Stephanie	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
212	Greene, Tina	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
213	Gribkoff, Yanick	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
214	Lopez, Sergio	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
215	Nelson, Marvis	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
216	Ostl, Rose	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
217	Pica, Lucille	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
218	Rubin, Jill	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
219	Sewell, Maria	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
220	UNDERWOOD,G	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
221	WHITE,JUDY	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401
222	Williams, Norma	WPB Health Center	705 N Olive Ave - West Palm Beach, FL 33401

***APPENDIX # 3***

***PALM BEACH COUNTY HEALTH DEPARTMENT***

***ANTHRAX EXPENSES***

**Palm Beach County Health Department**

**Bacillus Anthracis Response Report**

**Summary Master Reporting Form at 1/31/2002**

NOTE: Hours worked in excess of 40 per week and/or 80 biweekly have been totalled in "Hours Allocated", but for SES staff, are not calculated under "Personnel Expenses Charged."

Reporting Period Ending	Hours Allocated					PERSONNEL EXPENSES CHARGED					
	Training	Surveillance	Direct Svc	Admin	Total	Training	Surveillance	Direct Svc	Admin	Overtime	Total
1 10/11/01	14	716	1,052	907	2,688	\$523	\$17,976	\$31,400	\$25,767	\$6	\$75,672
2 10/18/01	0	492	606	733	1,830	\$0	\$11,668	\$17,736	\$19,717	\$82	\$49,204
3 10/25/01	9	347	291	498	1,144	\$217	\$9,998	\$11,459	\$13,906	\$0	\$35,580
4 11/01/01	2	313	291	332	938	\$37	\$12,147	\$10,165	\$9,533	\$0	\$31,882
5 11/08/01	5	94	28	144	272	\$100	\$3,095	\$1,690	\$7,884	\$0	\$12,769
6 11/15/01	0	6	14	0	20	\$0	\$200	\$189	\$0	\$0	\$388
7 12/27/01	0	0	4	12	16	\$0	\$0	\$275	\$403	\$0	\$678
8 1/31/02	0	0	0	11	11	\$0	\$0	\$0	\$482	\$0	\$482
	<b>30</b>	<b>1,967</b>	<b>2,286</b>	<b>2,636</b>	<b>6,918</b>	<b>\$878</b>	<b>\$55,083</b>	<b>\$72,913</b>	<b>\$77,692</b>	<b>\$88</b>	<b>\$206,654</b>

**Other Expenses Attributable to the Anthrax Response, (OCA=TERCH):**

Cellular Phone Use	\$3,342
Travel/Mileage	\$922
Supplies & Miscellaneous	\$7,699
Value of Supplies and Copying Cost for Anthrax Response Letters	\$1,073
Value of Compensatory Time Attributable to the Anthrax Response:	\$7,309
<b>Total Expenses:</b>	<b>\$226,999</b>

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