

**PROTECTING THE PROTECTORS: ENSURING THE
HEALTH AND SAFETY OF OUR FIRST RESPONDERS
IN THE WAKE OF CATASTROPHIC DISASTERS**

FULL HEARING

OF THE

**COMMITTEE ON HOMELAND SECURITY
HOUSE OF REPRESENTATIVES**

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**PROTECTING THE PROTECTORS: ENSURING
THE HEALTH AND SAFETY OF OUR FIRST
RESPONDERS IN THE WAKE OF
CATASTROPHIC DISASTERS**

Thursday, September 20, 2007

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON HOMELAND SECURITY,
Washington, DC.

The committee met, pursuant to call, at 10:04 a.m., in Room 311, Cannon House Office Building, Hon. Bennie G. Thompson [chairman of the committee] presiding.

Present: Representatives Thompson, Sanchez, Lowey, Norton, Christensen, Etheridge, Cuellar, Clarke, King, Souder, Dent, Bilirakis, McCaul and Lofgren.

Chairman THOMPSON. The Committee on Homeland Security will come to order.

Good morning. On behalf of the members of the committee, let me welcome our witnesses.

The committee is meeting today to discuss how we can ensure the health and safety of our first responders following disasters, whether they are manmade or natural.

Following the collapse of the World Trade Center, approximately 40,000 responders involved in the rescue, recovery and cleanup were exposed to a mixture of dust, debris and smoke-filled lethal substances. As time has gone on, firefighters, law enforcement officers, EMTs and workers in the construction trades increasingly have gotten sick, most often with respiratory illnesses.

I look forward to hearing from our witnesses on the status of the various medical monitoring and treatment programs that have been put into place to address these issues at the site of the World Trade Center.

Subsequently, in August of 2005, Hurricane Katrina devastated the Gulf Coast, flooding 80 percent of the city of New Orleans with up to 15 feet of water. Millions of gallons of oil were released from storage facilities, and tons of wreckage from abandoned cars, homes and refrigerators were left in its wake. First responders who came from all over the country to help the residents of Louisiana and my home State of Mississippi were exposed to filthy flood water filled with agricultural and industrial waste and sewage. However, there currently is not a system in place to adequately track their health, and I worry that the long-term impacts may never be completely known.

(1)

In addition, we cannot forget the psychological trauma of our first responders, who are exposed to tragedies like 9/11, Katrina and Oklahoma City bombings. While working in these situations, they see things and have experiences that take a serious toll on their mental health being. This often leads to post-traumatic stress disorder. Currently, FEMA will fund short-term crisis counseling, but Federal assistance does not extend to psychiatric and, often, long-term treatment for conditions that stem from disasters. We need to examine whether the Federal Government should do more in this area.

Effective health and safety should not be limited to monitoring and treating our heroes after they get sick; we should also be focused on preventive measures. No firefighter, law enforcement officer or EMT should go without the personal protective equipment or training they need to be safe. The various Federal first responder grant programs are critical in accomplishing this goal, and we must reverse the trend of budget cuts we have seen in recent years for many of those programs.

In addition, while the issues of interoperable communication is not often considered a health and safety issue, it absolutely is. Many firefighters who lost their lives in the World Trade Center on 9/11 could have been saved if they had better communications.

Finally, while I believe it is critical to examine what went wrong in past disasters and how we are taking care of our sick emergency workers, I hope we can translate the lessons learned from these tragedies into positive changes. However, I still have my doubts whether there has been sufficient planning and coordination between and among all the relevant Federal agencies. Everyone needs to know their respective roles and responsibilities in the areas of worker safety and medical monitoring. Unfortunately, this country again will have to face another 9/11 or Katrina. We must act now to ensure that we protect those who bravely put their lives on the line to protect us.

I want to thank the witnesses again for their testimony.

And the Chair now recognizes the ranking minority member of the full committee, the gentleman from New York, Mr. King, for any statement he may have.

Mr. KING. Thank you, Mr. Chairman. Thank you for recognizing me. More importantly, thanks for holding this hearing on an issue which is very important and certainly must be addressed.

My own district in New York lost almost 150 constituents on September 11. In addition to those who were lost, there are also many who are still suffering and an increasing number who are suffering health effects from the recovery effort and the rescue work that went on on September 11 and in, literally, the months and months that followed that.

Obviously, there is a significant role for Congress to play. There is also a significant role for local and State governments to play, and it is important that we recognize and acknowledge the situation that does exist.

New York was probably as well-prepared as anyone could be for a disaster of this type, and yet we saw much more that had to be done that wasn't. The FDNY, the NYPD, were as well-trained as any units in the country could be, yet no one was quite ready for

an attack of this magnitude, of this enormity. And, certainly, what was done in the days and weeks after did contribute to lingering and, in too many cases, actual fatal effects from what went on during the recovery effort.

I am supporting legislation, along with Congresswoman Maloney and Congressman Fossella, to enable those who do suffer from the effects of September 11 to be able to be compensated from the Victim Compensation Fund, because that fund was made available to people who were injured or wounded on September 11, and many of the illnesses we are finding now were not known as of the time the deadline for filing claims expired. I think it is important we go forward with that.

I want to commend Mount Sinai Hospital in New York for the program that they have. They really have stepped up on this and are doing an extraordinary job of monitoring and analyzing the effects of September 11.

Also, fortunately, the FDNY had a program in place which makes it easier—I don't know if "easier" is the right word or not, but I will say easier—to notice effects of September 11, since they have a backdrop against which they can base their current analysis, current health conditions, because of the history of examinations that are being held by the FDNY.

But this is a very significant hearing. We have to, in planning for the future of September 11—as tragic as it was, it could have been worse—it could be worse in the future. We have to, when we are preparing for catastrophes, use September 11 as an example of just how bad it can be and even worse. And we have to be better prepared for all contingencies: to stop the attack or the natural disaster, as happened in Katrina; to prevent it to the extent that it can be done; to address it at the time it is happening; and then to be ready in the immediate and subsequent aftermath to address the first responders who put their lives and health on the line to protect so many people, to rescue so many people and to recover the remains of those who do not survive the attack or the natural disaster.

So I look forward to the hearing. Unfortunately, I will not be able to stay throughout the hearing, but if Congressman Bilirakis will fill in for a while, I would certainly appreciate it. My staff will be updating me, and I will certainly study all the testimony and the transcript.

Mr. Chairman, I yield back. Thank you for holding this hearing.

Chairman THOMPSON. Thank you very much, Ranking Member King.

Other members of the committee are reminded that, under committee rules, opening statements may be submitted for the record.

I welcome the panel of witnesses.

Our first witness, Dr. Jon Krohmer is the Deputy Assistant Secretary for Health Affairs and Deputy Chief Medical Officer for the Office of Health Affairs in the Department of Homeland Security. Dr. Krohmer is a physician trained in emergency medicine and has been a real leader in this field. He has held a variety of leadership positions, including president of the National Association of EMS Physicians. His work in setting standards for EMS providers of all types is well-recognized.

Our second witness, Dr. John Howard, is Director of the National Institute for Occupational Safety and Health and a fellow coordinator for the World Trade Center health issues. Dr. Howard is an occupational physician who has emphasized both occupational health and public safety during his career.

Our third witness is Ms. Cynthia Bascetta, Director of the Health Care Division of the Government Accountability Office, at the GAO. Ms. Bascetta has addressed a number of issues, including bioterrorism preparedness, veteran affairs, military health care, as well as health-related issues generated by the situations of concern to us today, Hurricane Katrina and the WTC.

We thank all three of our witnesses for their service to the Nation and for being here today.

Without objection, the witnesses' full statements will be inserted in the record.

I now ask each witness to summarize his or her statement for 5 minutes, beginning with Dr. Krohmer.

STATEMENT OF JON R. KROHMER, MD, F.A.C.E.P, DEPUTY CHIEF MEDICAL OFFICER, DEPARTMENT OF HOMELAND SECURITY

Dr. KROHMER. Mr. Chairman, Ranking Member King and members of the committee, as you noted, I am the Deputy Assistant Secretary of Health Affairs and the Deputy Chief Medical Officer in the Department of Homeland Security. Thank you for the opportunity to testify before the committee on this critical issue of first responder health and safety.

On behalf of Secretary Chertoff, Dr. Runge, the Acting Assistant Secretary and Chief Medical Officer, and the Department, thank you for your continued leadership and willingness to work with the Department to address the issues facing our Nation's health care security.

The Office of Health Affairs serves as the Department's principal agent for all medical and public health issues and is responsible for ensuring a unified program for medical support of the Department's missions, to include the integration of occupational medicine and workforce protection principles whenever DHS personnel are deployed during a critical incident.

Our goal in the Office of Health Affairs is to work closely with our safety and environmental sciences colleagues to have a comprehensive approach to health and safety for all employees of the Department, regardless of their work setting. My role today is not to discuss the overall approach to health and safety of first responders nationally, but to focus on that of DHS employees.

Within the emergency response community, there is an axiom that we must care for those who care for others. Ensuring scientifically sound, compassionate and comprehensive health and safety support for emergency responders is a priority for all government agencies.

In the aftermath of the attacks of September 11 and the Gulf Coast hurricanes, emergency personnel were exposed to a number of environmental contaminants and irritants. We have learned a great deal from those events, but we still have progress to make.

Our DHS first responder role is actually fairly minimal. In general, the first people on site in any incident will be the local and State emergency services personnel. However, once Federal assistance is requested, DHS will deploy early responder personnel while incidents are still in flux and do not have a typical safety and support system in place. Consequently, we must have the same concerns for our early responders that we do for the local communities' first responders.

At the Department level, we now have two offices that work together to provide policies, requirements, standards and metrics to support safety and health functions. In addition to the Office of Health Affairs, the Office of Safety and Environmental Programs, or OSEP, provides guidance, oversight and advocacy for the safety and health needs of the components. Collectively, our role is to facilitate and coordinate occupational health issues and the expanding functions to improve specific responder safety across components.

Within the Office of Health Affairs, we have recently established the Office of Component Services to focus on optimizing health-related services and consultations in DHS. This program will partner with OSEP to ensure that occupational medicine principles are incorporated throughout the Department. This partnership, with each office bringing specific complementary skill sets to the program, increases program benefits. Additionally, by placing the head of the Component Services Office, a physician, as a direct report to the Assistant Secretary for Health Affairs, we are ensuring that these critical issues have high visibility and a well-positioned advocate within DHS.

The first new position we have filled within Component Services is the Director for Workforce Health Promotion and Wellness. This position will address such issues as medical and physical recommendations for deployment to critical incidents and the health and safety training requirements for those responders.

With OSEP, this branch will also develop standards and policies for environmental and safety assessments of areas to which DHS personnel are deployed and the resulting requirements for appropriate personal protective equipment. Soon, we will also be hiring an occupational medicine physician, who will work to provide medical guidelines and recommendations for the physical and medical preparations of responders and to develop plans for medical and psychological assistance for personnel during and after deployments.

Direct medical support for DHS personnel responding to critical situations is also a primary consideration of our office. We recognize that there will be certain intensive operations which are unique to these responders. We are in the process of hiring a physician director for emergency medical services, who will have a specific goal of ensuring that the operational personnel of the Department have the appropriate medical support services in place, to give them the confidence that DHS will do everything in our power to take care of them medically.

We also recognize the need for horizontal and vertical integration and will strive to work across the Federal Government and through our State, territorial, tribal and local partners to ensure that there

is an integrated approach to the health and safety issues of all first responders.

Mr. Chairman, I appreciate the opportunity to outline for the committee the importance that DHS puts on ensuring the health and safety of our responders, and we will look forward to answering any questions you might have.

[The statement of Dr. Krohmer follows:]

PREPARED STATEMENT OF JON R. KROHMER, MD, F.A.C.E.P.

Mr. Chairman, Ranking Member King, and Members of the Committee:

I am Dr. Jon Krohmer, the Deputy Assistant Secretary for Health Affairs and Deputy Chief Medical Officer within the Department of Homeland Security. Let me begin by thanking you for the opportunity to testify before the Committee on these critical issues related to ensuring the health and safety of our nation's first responders. In addition, on behalf of Secretary Chertoff, Dr. Runge—the Acting Assistant Secretary and the Chief Medical Officer—and the rest of the Department, thank you for your continued leadership and willingness to work with the Department to address many of the issues facing our nation's security.

My office, the Office of Health Affairs, serves as the Department's principal agent for all medical and public health matters and is responsible for ensuring a unified program for medical support of the Department's missions, including the integration of occupational medicine and workforce protection principles into the occupational health and safety programs of DHS and its components. Importantly, this includes ensuring that these principles are applied whenever DHS personnel are deployed in a response role during any critical incident.

One point that I would like to make at the outset is that while today's hearing is focused on "first responders," our goal in the Office of Health Affairs is to work hand-in-hand with our safety and environmental sciences colleagues to have a comprehensive approach to health and safety for employees of the Department, from those who are working in a climate controlled office, to those protecting our borders and airports, to those who are deploying on no-notice to the worst imaginable disasters, both natural and man-made. Importantly, my role here today is not to discuss the overall approach to health and safety of first responders nationally, but to focus on how the Department of Homeland Security is working to ensure the health and safety of early responders from the component agencies of DHS, including TSA, CBP, Coast Guard, FEMA and others.

Within the emergency response community, it is an axiom that we must "care for those who care for others." Ensuring scientifically sound, compassionate, and comprehensive health and safety support for emergency responders is a priority for all government agencies involved in emergency response. In the aftermath of the attacks of September 11th and Hurricane Katrina, emergency personnel and others involved in the response effort were exposed to a number of environmental contaminants and irritants. These were, obviously, large scale events for the responder community, and even for the greater public health community, but, as you know, today we must think about the unthinkable. Initial safety assessments and the safety measures applied to incident management of those events were not what they would be today, based on the lessons we have learned from those events. We have learned a great deal from those events, both in terms of how we protect our first responders and in the long-term management of those involved, but we still have progress to make. My colleagues testifying today will detail many of the lessons learned and actions that have been taken in response to those events. I have been asked to discuss how DHS has taken those lessons-learned and what is being done now to ensure that responder health and safety advances are moving forward.

Let me also add that our DHS "first responder" role is actually fairly minimal, as we know that, in general, the first people on site in any incident will be the local and state emergency services personnel. However, once assistance from the Federal Government is requested DHS will deploy "early responder" personnel to respond to incidents that are still in flux and do not have the usual safety and support systems in place. Consequently, we must have the same concerns for these "early responders" that we do for the local community's first responders.

DHS occupational safety and health programs, including those supporting personnel who respond to major disasters and other catastrophes, have historically been a function of management because they directly affect the efficiency and productivity of the workforce and because they are often seen primarily as responsive to laws and regulations related to the Occupational Safety and Health Act. These

functions are managed primarily by the safety offices within the individual operating components. At the Department level, we have two offices that work in close coordination to provide policies, requirements, standards and metrics to support the safety and health functions at the component level. In addition to the Office of Health Affairs, the Office of Safety and Environmental Programs, or "OSEP," provides guidance, oversight and, importantly, advocacy for the safety and health needs of the components. Collectively, our role is to facilitate and coordinate the occupational health issues across components. It is a combination of oversight management (e.g. ensuring OSHA rules are applied in all situations) and the more recently expanding functions to improve specific first responder safety across all components.

Within the Office of Health Affairs, we have recently established the Office of Component Services to focus on optimizing health related services and consultations for component agencies of DHS. I would like to take a few moments to outline the objectives of the office that bear on the health and safety of our response personnel.

The Office of Component Services will partner with OSEP to ensure that occupational medicine principles are incorporated. This partnership, with each office bringing specific complimentary skill-sets to the program, increases program benefits throughout the Department. Additionally, by placing the head of the Component Services office as a direct report to the Assistant Secretary for Health Affairs, we are ensuring that these critical safety and health issues have high visibility and have a well positioned advocate within DHS.

The first new position we have filled within Component Services is a Director for Workforce Health Promotion and Wellness, who will directly address the concerns of our response personnel. Staffed with an Industrial Hygienist and supported by the physician staff of the Office, this position will address such issues as medical and physical recommendations for deployments to critical incidents, including vaccination and preventive medicine services, as well as the health and safety training requirements for responders. Additionally, in conjunction with OSEP, this branch will be well-positioned to develop standards and policies for environmental and safety assessments of areas to which DHS personnel are deployed, and the resulting requirements for personal protective equipment, or PPE, for our personnel.

Over the coming weeks, we will also be bringing on board an Occupational Medicine Physician who will work with the Human Capital Office and the individual DHS components to provide medical guidance and recommendations for the physical and medical preparation of responders and to develop plans for medical and psychological assistance for personnel during and after deployments.

Direct medical support for DHS personnel, particularly those responding to critical situations, is also a primary consideration in the event that prevention efforts are overwhelmed in a disaster situation. In general, medical systems established in a disaster setting will take care of both victims and responders. At the same time, however, we recognize that there will be certain intensive operations which are unique to responders, including aviation response, wilderness rescue, toxic environments, and so on. We are in the process of hiring a Director for Emergency Medical Services who will have the specific goal of ensuring that the operational personnel of the department, in either a law enforcement role, or a responder role, have the right medical support services in place to give them the confidence that DHS will do everything in our power to take care of them medically.

Finally, I would like to note that we also recognize the need for horizontal and vertical integration of response to early responder health and safety issues. This response is not just a local issue, nor a state issue, nor an HHS issue, nor a DHS issue. Instead, ensuring the safety of our first responders is a shared obligation that the entire response community has to those who put themselves in harm's way for the betterment and safety of others. We will always strive to work across the federal government and through our state, territorial, tribal, and local partners to ensure that there is an integrated approach to ensuring the health and safety of all first responders.

Mr. Chairman, I appreciate the opportunity to have outlined for you today the importance that the Department of Homeland Security places on ensuring the health and safety of our response personnel and look forward to answering any questions you may have on these matters.

Chairman THOMPSON. Thank you for your testimony.

I now recognize Dr. Howard to summarize his statement for 5 minutes.

Dr. Howard?

**STATEMENT OF JOHN HOWARD, MD, M.P.H., DIRECTOR,
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND
HEALTH, DEPARTMENT HEALTH AND HUMAN SERVICES**

Dr. HOWARD. Thank you, Mr. Chairman and members of the subcommittee. I am from the National Institute for Occupational Safety and Health, NIOSH, in the Centers for Disease Control and Prevention, of the Department of Health and Human Services.

I am pleased to be here today to share with you some observations about ensuring responder safety and health based on my experience in coordinating programs of the Department for World Trade Center volunteers.

Over 36,000 World Trade Center responders and volunteers from across the country are currently enrolled in a federally funded medical monitoring and treatment program. Just over 7,000 of these responders are being treated for physical health ailments and nearly 5,000 for mental health conditions associated with their heroic response to the World Trade Center attacks.

Also, in collaboration with the New York City Department of Health and Mental Hygiene, the Department funds the World Trade Center Health Registry. The registry tracks the health of 71,000 responders, residents, office workers, students, school staff and those present in the area of the World Trade Center on September 11, 2001. The registry's findings provide an important picture of the long-term physical and mental health consequences of September 11.

These programs, as well as NIOSH-funded studies since 2001, have generated a body of knowledge that indicates the importance of ensuring the safety and the health of disaster responders before they are deployed, while they are deployed and after deployment.

Before deployment, it is critical to provide pre-event training about likely hazards and hands-on instruction in the use of personal protective equipment.

While responders are deployed, it is critical, at a minimum, to: one, compile a list of responders and their daily, individual disaster site exposure profiles; two, reinforce training with on-scene training, especially for spontaneous or unaffiliated responders who volunteer their services; three, establish integrated safety management among all responding agencies; four, set up tight disaster site perimeter control; five, rigorously track responder entry and exit from that site; six, employ shift rotation to enable shorter duration of service at the site; and, seven, engage in real-time exposure assessment and hazard control.

After deployment, it is critical to screen responders for health effects based on exposure assessment findings or the occurrence of symptoms. Positive findings would then lead to long-term medical monitoring and treatment, as necessary.

Thank you, Mr. Chairman. I would be pleased to answer any questions you might have.

[The statement of Dr. Howard follows:]

PREPARED STATEMENT OF JOHN HOWARD, MD, M.P.H.

Good morning, Chairman Thompson and other distinguished Members of the Committee. My name is John Howard, and I am the Director of the National Institute for Occupational Safety and Health (NIOSH), which is part of the Centers for

Disease Control and Prevention (CDC) within the Department of Health and Human Services (HHS). CDC's mission is to promote health and quality of life by preventing and controlling disease, injury and disability. NIOSH is a research institute within CDC that is responsible for conducting research and making recommendations to identify and prevent work-related illness and injury.

Mr. Chairman, I would like to express my appreciation to you and to the members of the subcommittee for holding this hearing and for addressing the critical need of ensuring the health and safety of our first responders. I am pleased to appear before you today to report on the progress we have made in addressing the health needs of those who served in the response effort after the World Trade Center (WTC) attack on 9/11 and NIOSH's ongoing activities to protect responders in general.

Since February 2006, I have served as the HHS WTC Programs Coordinator. Secretary of Health and Human Services Michael O. Leavitt determined that there was a "critical need to ensure that programs addressing the health of WTC responders and nearby residents are well-coordinated," and charged me with this important task. Since receiving this assignment I have traveled to New York City (NYC) and Albany, New York, to assess the status of the existing HHS programs addressing WTC health effects, and meet with those we serve. Participating in these dialogues has enabled me to better understand the needs of those affected, and the steps we can take to meet those needs. As the HHS WTC Programs Coordinator, I work to coordinate the existing programs and ensure scientific reporting to provide a better understanding of the health effects arising from the WTC attack. Today, I will focus my remarks on the progress we've made towards these tasks, lessons learned, and NIOSH's efforts to address responders' needs for future disasters.

WTC Responder Health Program—Monitoring and Treatment

Since 2002, agencies and offices within HHS have been dedicated to tracking and screening WTC rescue, recovery and clean up workers and volunteers (responders).

In 2004, NIOSH established the national WTC Worker and Volunteer Medical Monitoring Program to continue baseline screening (initiated in 2002), and provide long-term medical monitoring for WTC responders. In fiscal year 2006, Congress appropriated \$75 million to CDC to further support existing HHS WTC programs and provide screening, monitoring, and medical treatment for responders. Since these funds were appropriated, NIOSH has established a coordinated WTC Responder Health Program to provide annual screenings, as well as diagnosis and treatment for WTC-related conditions (e.g. aerodigestive, musculoskeletal, and mental health) identified during monitoring exams. The WTC Responder Health Program consists of a consortium of clinical centers and data and coordination centers that provide patient tracking, standardized clinical and mental health screening, treatment, and patient data management.

To date, the WTC Responder Health Program has screened approximately 36,000 responders. The New York City Fire Department (FDNY) manages the clinical center that serves FDNY firefighters who worked at Ground Zero. As of July 31, 2007, FDNY had conducted 29,203 screenings, including 14,429 initial examinations and 14,774 follow-up examinations. The Mt. Sinai School of Medicine's Center for Occupational and Environmental Medicine coordinates a consortium of clinics that serve other response workers and volunteers who were active in the WTC rescue and recovery efforts. These clinics have conducted 21,088 initial examinations and 9,101 follow up examinations. Of the 36,000 responders in the WTC Responder Health Program, 7,603 have received treatment for aerodigestive conditions, such as asthma, interstitial lung disease, chronic cough, and gastro-esophageal reflux, and 4,868 have been treated for mental health conditions.

The availability of treatment for both physical and mental WTC-related health conditions has encouraged more responders to enroll and continue participating in the WTC Responder Health Program, which will enable us to better understand and treat the long-term effects of their WTC exposures.

WTC Federal Responder Screening Program

In fiscal year 2002, the HHS Office of Public Health Emergency Preparedness—which is now the Office of the Assistant Secretary for Preparedness and Response (ASPR)—received \$3.74 million through Federal Emergency Management Agency (FEMA) to establish the WTC Federal Responder Screening Program to provide medical screening for all Federal employees who were involved in the rescue, recovery or clean up efforts. Current Federal employees in this program are screened by the HHS Federal Occupational Health (FOH), a service unit within HHS. FOH has clinics located in areas where large numbers of Federal workers are employed. As of August 31, 2007, FOH had screened 1,331 Federal responders. In February 2006, CDC-NIOSH and OPHEP (now ASPR) signed a Memorandum of Understanding to

monitor former Federal workers via the WTC Responder Health Program. Since then, former Federal workers have been enrolled in the WTC Responder Health Program and served by the Mt. Sinai Data and Coordination Center and national clinic partners.

Nationwide Scope

HHS is working with its partners to ensure that the benefits of all federally-funded programs are available to all responders, across the nation. Those responders who selflessly came to the rescue of NYC from throughout the country to assist in rescue efforts at the time of the WTC disaster should receive the same high quality monitoring and treatment as those who reside in the NYC Metropolitan Area. Enrollees in the WTC Responder Health Program who are not located in the NYC Metropolitan Area, receive monitoring and treatment via a national network of clinics managed by QTC, Inc. and the Association of Occupational and Environmental Clinics (AOEC), respectively. To date, 698 responders outside of the NY Metropolitan Area have been screened by the WTC Responder Health Program.

Achieving such nationwide coverage for WTC responders is challenging; however, we are committed to serving all responders, regardless of their location or employment status. I am actively working with the medical directors of the WTC Health Program, the WTC Federal Responder Screening Program, QTC, Inc. and AOEC to ensure that the services available to responders are uniform across programs.

WTC Health Registry

In addition to the WTC Responder Health Program, the Agency for Toxic Substances and Disease Registry (ATSDR) maintains the World Trade Center Health Registry. In 2003, ATSDR, in collaboration with the New York City Department of Health and Mental Hygiene (NYCDOHMH), established the WTC Health Registry to identify and track the long-term health effects of tens of thousands of residents, school children and workers (located in the vicinity of the WTC collapse, as well as those participating in the response effort) who were the most directly exposed to smoke, dust, and debris resulting from the WTC collapse.

WTC Health Registry registrants will be interviewed periodically through the use of a comprehensive and confidential health survey to assess their physical and mental health. At the conclusion of baseline data collection in November 2004, 71,437 interviews had been completed, establishing the WTC Health Registry as the largest health registry of its kind in the United States. The Registry findings provide an important picture of the long-term health consequences of the events of September 11th. Registry data are used to identify trends in physical and mental health resulting from the exposure of nearby residents, school children and workers to WTC dust, smoke and debris.

The WTC Health Registry also serves as a resource for future investigations, including epidemiological, population specific, and other research studies, concerning the health consequences of exposed persons. These studies can assist those working in disaster planning who are proposing monitoring and treatment programs by focusing their attention on the adverse health effects of airborne exposures and the short- and long-term needs of those who are exposed. The findings will permit us to develop and disseminate important prevention and public policy information for use in the unfortunate event of future disasters.

Since 9/11, HHS has worked diligently with our partners to best serve those who served their country, as well as those in nearby communities affected by the tragic attack. While we have made much progress, we must continue to gather and analyze data that will enable us to better understand the health effects we have observed.

Funding

I want to reaffirm the Department's commitment to work with the Congress to provide compassionate and appropriate help to responders affected by the World Trade Center exposures following the attacks.

As you know, the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act of 2006 (P.L. 109-148) provided \$75 million for the treatment, screening, and monitoring of the responders. With less than one month remaining in the fiscal year (FY) we are confident this funding will last at least until the end of fiscal year 2007.

The President's fiscal year 2008 budget requests \$25 million for World Trade Center responders and in May 2007, the President signed the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act of 2007 (P.L. 110-128), which included an additional \$50 million to support continued treatment and monitoring for World Trade Center responders. This funding will be

awarded, as needed, to support continued monitoring, care, and treatment of responders through fiscal year 2008.

From July 1, 2006, through June 30, 2007, the Federal grantees have reported to NIOSH spending approximately \$15 million total for treatment for World Trade Center related illnesses. This includes \$6 million from American Red Cross funds and \$9 million from the \$42 million total Federal grants awarded in October 2006. Of this \$9 million, the grantees have actually drawn down only \$2 million in payments on the Federal grants.

Over \$90 million in appropriated funds remains available—including the balance of the treatment funds appropriated in fiscal year 2006 and the \$50 million appropriated in fiscal year 2007—before adding the \$25 million included in the President's fiscal year 2008 budget request. HHS is gathering additional financial data from the Federal grantees in order to better understand the healthcare cost issues of the responders. Additional data will help inform our policies, ensure that the current program operates efficiently and effectively, and maximize the available resources to meet responders' medical needs. HHS will continue to monitor the work of the grantees as part of the fiscal year 2009 budget process.

Lessons Learned

In December 2001, NIOSH convened a conference to explore lessons about preserving the safety and health of emergency responders in the context of terrorist attacks, organized and led by the RAND Science and Technology Policy Institute in New York City. This conference and subsequent evaluations of response efforts to large-scale disasters concluded that there is a critical need for:

- Accessibility to protective and practical personal protective equipment (PPE) and hazard monitoring technologies;
- Interagency training to aid in the effective implementation of health and safety measures and PPE enforcement;
- Quick and effective establishment of a command authority over the disaster site and perimeter control; and
- Tracking of responders.

In my experience as WTC Health Coordinator, I have learned that we must address responder safety and health in three stages: pre-deployment, deployment and post-deployment. During the pre-deployment stage, prior to the initiation of a response, all responders need to be adequately trained to recognize and protect themselves from health and safety hazards. Adequate preparation is especially important for spontaneous or unaffiliated responders who volunteer their services. As reported in findings based on WTC Health Registry data, these responders are often more adversely affected, possibly due to a lack of health and safety training (American Journal of Psychiatry, 2007; 164; 1385—1394). During the deployment stage, when responders are actively engaged in the response effort, it is critical to track responders' access to the disaster site and conduct real-time exposure assessment. Knowing where responders have gone and their potential exposures will enable us to more accurately assess their health effects and determine their post-deployment needs. During post-deployment, once the response effort is completed, responders should be screened for health (physical and emotional) effects, if exposure assessment or the occurrence of symptoms indicates. These findings could then be used to determine if long-term monitoring and treatment are necessary. To ensure responder safety and health during future disaster events, we must address each of these stages.

Additional NIOSH Programs

In addition to WTC-related programs, NIOSH continues to conduct research and make recommendations to protect the health and safety of first responders and recovery workers through various program activities.

In the aftermath of disasters, NIOSH actively participates in the response effort and identifies staff to provide technical expertise to meet immediate worker protection needs. As outlined by the Worker Safety and Health Annex of the National Response Plan, NIOSH provides assistance on occupational exposure assessments, provides guidance on personal protective equipment, and develops and disseminates guidelines to integrate worker safety and health into site operations. NIOSH works with multidisciplinary occupational safety and health teams to develop procedures for follow-up evaluations of worker injuries, conduct health hazard evaluations (HHEs) and provide technical assistance to local, state, and Federal governmental agencies to assess potential health effects from workers' exposures in the recovery zone.

NIOSH also conducts research to address the critical need for effective personal protective technologies, such as respirators, chemical-resistant clothing, hearing protectors, and safety goggles and glasses that provide a barrier between the worker and an occupational safety or health risk. Building upon NIOSH's longstanding res-

piratory certification and evaluation program for respirators used in traditional work settings, NIOSH scientists test and approve respirators for use by responders against chemical, biological, radiological, and nuclear (CBRN) agents. Since 9/11, NIOSH has approved 77 different models of CBRN respirators. Our work has led to an increase in the national inventory of respiratory protection equipment and supports the long-term development of standards and technologies for protecting the health and safety of workers, especially first responders.

NIOSH addresses hazards specific to fire fighters through the Fire Fighter Fatality Investigation and Prevention Program. Through this program NIOSH conducts in-depth evaluations of fire fighter line-of-duty deaths to formulate recommendations for preventing future deaths and injuries. The goals of the program are to: better define the characteristics of line-of-duty deaths among fire fighters, develop recommendations for the prevention of deaths and injuries, and disseminate prevention strategies to the fire service.

Additionally, NIOSH has developed an aggressive Research Portfolio to address a wide range of research needs in the emergency response community. Examples of proposed research include developing tools to improve safety climate, advances in personal protective equipment, enhanced medical surveillance methods for responders and recovery workers, and advancing environmental sampling strategies.

NIOSH is committed to protecting the health and safety of workers, and is actively working to address the critical needs of first responders. I appreciate your support of our efforts and look forward to working with you in the future as we continue to serve this deserving population. Thank you for the opportunity to testify. I would be happy to answer any questions you may have.

Chairman THOMPSON. Thank you very much, Dr. Howard, for your testimony.

I now recognize Ms. Cynthia Bascetta to summarize your statement for 5 minutes.

STATEMENT OF CYNTHIA A. BASCETTA, DIRECTOR, HEALTH CARE, GOVERNMENT ACCOUNTABILITY OFFICE

Ms. BASCETTA. Thank you, Mr. Chairman and members of the committee. I am happy to be here to participate in your hearing today on protecting the protecters.

As you know, the 9/11 responders were exposed to numerous physical hazards, environmental toxins and psychological trauma, which continue to exact a heavy toll for many of them 6 years after the World Trade Center attack.

My testimony is based primarily on our July 2007 report and our prior work, which found that the screening program for Federal responders had accomplished little and lagged behind programs for other responders, and highlighted similar problems with the provision of services for non-Federal responders residing outside the New York metro area. We also identified lessons learned from the World Trade Center health programs that could be helpful in responding to future disasters.

My remarks today focus on the status of services for Federal responders and non-Federal responders who came from across the Nation in the aftermath of the attack. I will also highlight three lessons learned that were common to the World Trade Center and the Hurricane Katrina disaster.

Regarding 9/11 Federal responders, we reported, this July, that HHS has had continuing difficulties ensuring the uninterrupted service for them.

First, the availability of screening examinations has been intermittent. HHS suspended screening exams from March 2004 to December 2005, resumed them for about a year, then placed the program on hold and suspended scheduling exams from January to

May 2007. The last interruption occurred because interagency agreements were not arranged in time to keep the program fully operational.

Second, the provision of specialty diagnostic services often needed for ear, nose, throat, heart and lung problems has also been intermittent. The program had referred responders and paid for these diagnostic services. However, because the contract with the new provider network did not cover these services, they were unavailable from April 2006 until the contract was modified in March 2007.

NIOSH has considered expanding services for Federal responders to include monitoring exams, the same follow-up physical and mental health exams provided to other categories of responders. Unlike other responders, whose programs were designed to monitor their health over time, Federal responders are only entitled to a one-time screening examination. Without monitoring, their health conditions may not be diagnosed and treated, and knowledge of the health effects caused by the World Trade Center disaster may be incomplete.

We also found that NIOSH has not ensured the availability of screening and monitoring services for non-Federal responders outside the New York City area, although it recently took steps to expand their availability. Similar to the intermittent service patterns for Federal responders, NIOSH's arrangements for a network of occupational health clinics to provide services nationwide were on-again, off-again. This May, NIOSH renewed its efforts to expand a provider network and has completed about 20 exams.

The start-and-stop history of HHS's efforts to serve these groups does not provide assurance that the latest efforts to extend screening and monitoring services to these responders will be successful and sustained over time. As a result, we recommended in July that the Secretary take expeditious action to ensure the availability of health screening and monitoring services for all people who responded to the attack on the World Trade Center, regardless of their employer or their residence. To date, HHS has not responded to this recommendation.

Mr. Chairman, our testimony also highlights three lessons learned from the World Trade Center health programs that could improve future responses to disasters.

First, having a roster of who responded is key to identifying and monitoring health effects that they may have experienced. This seems obvious, yet 4 years after 9/11, no one was assigned the responsibility for collecting data on the total numbers of response and recovery workers deployed to the Gulf in the aftermath of Hurricane Katrina.

Second, health monitoring could benefit from centrally coordinated planning to facilitate compatible data collection among monitoring efforts. Our work on Hurricane Katrina noted that, in general, no systemic health monitoring for responders occurred, and we recommended that Federal agencies resolve their disagreement over who should fund medical monitoring of responders.

And finally, efforts to address health effects should include both physical and mental health. The New York/New Jersey World Trade Center consortium officials told us that initial Federal fund-

ing was not sufficient to cover mental health needs, but they were able to obtain philanthropic funds to address psychiatric screening and more extensive evaluations when necessary.

This concludes my remarks, and I would be happy to answer any questions you or the other committee members might have.

[The statement of Ms. Bascetta follows:]¹

Chairman THOMPSON. Thank you very much.

I want to again thank the witnesses for their testimony.

I will remind each member that he or she will have 5 minutes to question the panel.

I will now recognize myself for the first questions.

Dr. Krohmer, what has the Office of Health Affairs done, to date, to address the needs of people who respond to disasters like 9/11 or Katrina?

Dr. KROHMER. Well, you are aware, Mr. Chairman, the Office of Health Affairs really stood up and started to address some of the issues just in March of this year, and through some supplemental funding and reprogramming that was provided to us by the Congress just a couple months ago, are really in the process of building up to address those issues.

As I mentioned, the Office of Component Services that we have, headed by Dr. Bill Lang, has some very aggressive plans that we hope to start implementing this fall, looking at some of the issues that have been identified, finding out how those specifically apply to our employees within DHS.

Chairman THOMPSON. So before, say, March, who had that responsibility?

Dr. KROHMER. Within DHS?

Chairman THOMPSON. Yes.

Dr. KROHMER. I think it was addressed somewhat peripherally by the Office of the Chief Medical Officer regarding input into some of the DHS programs. But other than that, there was not any direct involvement.

Chairman THOMPSON. Okay.

Dr. Howard, you talked about some experiences in things as coordinator of the World Trade Center health issues. Have you found the long-term monitoring and resources necessary to do that to be a problem?

Dr. HOWARD. Mr. Chairman, at this time, no.

Chairman THOMPSON. Well, at this time. Before this time?

Dr. HOWARD. Beginning in 2001, very early, when the defense authorization bill for 2002 was being worked on in the Congress, money was provided to FEMA, which allowed us to begin a medical screening program within months of the disaster, which we began at Mount Sinai Medical Center.

Chairman THOMPSON. Thanks. So you are saying that there were no problems associated with monitoring of first responders to the World Trade Center, it was not a resource, everything was done in a timely manner?

¹ See GAO, "SEPTEMBER 11: Problems Remain in Planning for and Providing Health Screening and Monitoring Services for Responders", GAO-07-1253T, Thursday, September 20, 2007.

Dr. HOWARD. In terms of resources, yes. We have had no shortage of resources to provide monitoring, and now adding treatment services in 2006.

Chairman THOMPSON. Well, then I guess I need you to respond to what the GAO person said, which was kind of contradictory to your answer to me.

Dr. HOWARD. Right. We have had difficulties, as GAO has pointed out, in interagency arrangements with regard to starting and stopping of the Federal program as well as the national program. There is no doubt of that, sir.

I think, right now, we are on a good trajectory to screen all Federal responders. We are also working on a plan to, as Ms. Bascetta mentioned, get the Federal responders into the monitoring program that we run with our grantees, because one screening appointment, we do not feel, is enough.

The national program—we now have a national contractor. Before, one of our issues was the geographical distribution of the responders that came from all 50 States, Puerto Rico and many U.S. territories, and the location of the services that they could avail themselves of. We now have a national contractor for that.

Chairman THOMPSON. All right.

Ms. Bascetta, can you shed a little light on that same issue?

Ms. BASCETTA. I don't disagree with what Dr. Howard said, regarding the resources. For monitoring in particular, there has been adequate funding. Ninety million dollars was provided by FEMA shortly after the attack, and that money was used to do the monitoring that he discussed.

The problem, as he said, has been in the interruptions in services because of administrative failures to assure that provider networks and the like were put in place to spend that money.

Chairman THOMPSON. So maybe I asked the wrong question. So why have we heard from a number of people involved in both situations that they were not getting the services? So, now, is your testimony that the Federal Government failed to provide the monitoring services because certain agencies weren't talking to each other, or that Congress provided the resources but the agencies didn't talk to each other to get it done?

Dr. HOWARD. I am not sure that either one of those explanations—I think it is a matter of administrative capability.

What we have never done in NIOSH is establish a nationwide monitoring program. So individuals, wherever they are in the country, can travel just a small distance to be able to get a monitoring exam.

That has been a real challenge, but it hasn't been a lack of financial resources. It is infrastructure implementation and coordination with a network of providers, because we have to have the physician network in order to see the monitoring exam patients.

Chairman THOMPSON. So your testimony now, that if a 9/11 or Katrina—type event occurred today, all those necessary building blocks to monitor and follow the Federal responders are in place, and that would not be an interruption of any of the monitoring?

Dr. HOWARD. Yes, sir, that is what I am saying.

Ms. BASCETTA. I am not as convinced. It seems to us, on our reading of the annex in the National Response Framework, that

there are still questions about HHS and OSHA getting together to figure out when long-term monitoring needs to occur and who will pay for that and how that will be set up. We have concerns because the operational details of the annex aren't in place.

So while I think that the situation at the World Trade Center actually worked pretty well for the people who could get services in New York, our work has shown that it has not worked well at all for those outside the New York City area or for Federal workers. And I am not convinced that future disasters will be much better.

We know that, for a fact, in Katrina, there hasn't been long-term monitoring.

Chairman THOMPSON. At all?

Ms. BASCETTA. Systematic, long-term monitoring. I believe one or two agencies may have done some monitoring on their own, including the Coast Guard.

Chairman THOMPSON. Are you prepared to respond to GAO's comment with respect to that, Dr. Howard?

Dr. HOWARD. I think GAO is talking about a larger global issue. I was talking about the narrow issue of just World Trade Center responders right now, in terms of Federal and nationwide responders being able to access monitoring services.

I think what Ms. Bascetta was talking about is a very large issue, which I am not as well-versed in, in terms of the overall national plan. I know that, from our agency's viewpoint, at CDC and NIOSH, we work cooperatively with OSHA, who works cooperatively with DHS, to look at some of these long-term issues. We are primarily a research agency supplying our research findings to any Federal department that is interested in responder safety and health.

Chairman THOMPSON. So is your testimony, Ms. Bascetta, that presently there is no Federal operational manual for the long-term care and monitoring of Federal first responders?

Ms. BASCETTA. That is correct. We haven't seen the operational details for that plan, as Dr. Howard said, on a global scale. I would agree that they are on a better trajectory, with regard to the World Trade Center, but, again, you know, because of the past history, we really need to see a track record of following through with uninterrupted services for the Federal responders and for the non-Federal responders who don't live in the New York City area.

Chairman THOMPSON. Thank you.

I yield to the ranking member.

Mr. BILIRAKIS. Mr. Chairman, I appreciate it very much.

To follow up on your comments, Mr. Chairman, this is for all three panelists.

In your view, does the National Response Plan, soon to be known as the National Response Framework, adequately assign roles and responsibilities, with respect to protecting the health and safety of first responders in the wake of a disaster?

Dr. KROHMER. I guess I will take a stab at that one first.

As you are aware, ESF-8, the Emergency Support Function 8 that addresses public health and medical services as that annex, does include provisions for worker safety and health. Within the framework and the annex itself, there are general guidelines and

observations of issues that need to be addressed, but it doesn't get down into the very specific operational issues.

We would look forward to the opportunity of working both with HHS, NIOSH and ASPR, as well as the Department of Labor, to try and address some of those specific things. But I don't think it is the intent specifically of the National Response Framework to get down into the operational issues.

Dr. HOWARD. From my perspective—and I have to give you a disclaimer: I am an occupational safety and health physician by profession, so I care very much about responder safety and health. And I would prefer to see that responder safety and health issue elevated a bit within the larger structure of the national response network.

I can't speak for OSHA, who we partner with as technical support to OSHA, as they implement the safety and health support annex. But elevating the support annex to an essential support function is something that we at NIOSH would like to see, because we want to make sure that responder safety and health is put on par with victim safety and health and rescue.

Mr. BILIRAKIS. Ms. Bascetta?

Ms. BASCETTA. I would say that, without the operational details that Dr. Krohmer said are not in place yet, we can't evaluate the adequacy of the framework. But we would certainly have concerns about the ability to protect first responders, or responders, without some assurance that those kinds of details are in place and that they would work well.

Mr. BILIRAKIS. Thank you.

Dr. KROHMER, in your written testimony, you said that DHS is working across the Federal Government and through State, territorial, tribal and local partners to ensure that there is an integrated approach to ensuring the health and safety of all first responders.

How does the Office of Health Affairs coordinate with other Federal, State and local agencies to ensure that first responders receive adequate training and guidance to protect their health and safety?

Dr. KROHMER. Well, this is a process and an activity that we are just now becoming involved with. As I mentioned earlier, a lot of the work that has been done in the Office of Health Affairs since we stood up in March has really been done at the senior management level.

With the reorganization that we have undergone, we now have the Office of Medical Readiness, which is starting to ramp up. Up until very recently, it had a small staff with the associate chief medical officer, a couple of public health officers and a couple of Federal employees.

But as we move into these activities, we will be working, really, in two areas. The first is as the subject matter experts for the various Homeland Security grant programs—the MMRS program, the U.S. Fire Administration grants and the general Homeland Security grants—to ensure that there are components within those grants that address issues of training, personnel protective equipment and the like for first responders, to make sure that their health and safety issues are addressed.

In addition, within this Office of Medical Readiness, we are standing up a Division of First Response, that will work specifically through the FEMA regions with State and local first responder representatives to make sure that the health and safety issues of the first responders are addressed both at the State and local levels.

So this is very much a program in evolution based on our ability to start to move forward in those areas.

Mr. BILIRAKIS. Thank you, Mr. Chairman. I would like to take another round after, if that is okay. Thank you.

Chairman THOMPSON. Thank you.

We now yield 5 minutes to the gentleman from North Carolina, Mr. Etheridge.

Mr. ETHERIDGE. Thank you, Mr. Chairman.

And let me thank you for being here today.

A recent Harvard University study found that a significant link between firefighters and coronary heart disease was significant in the study. They pointed out that firefighters face up to 100 times their normal risk of heart attacks while working on a fire, and that accounts for roughly 45 percent of all the deaths of firefighters, volunteer and full-time paid professionals. Clearly, this is a concern with firefighters or anyone else who is considering a career or volunteer position in a local fire department.

Congress has taken action to deal with that issue. Unfortunately, we can't seem to get the administration to seem to understand and read the language that Congress has passed. I think they have now paid about four of the 200-and-some claims that are still outstanding. So I would encourage you in the health area to work with the Department of Justice to see if we can't get this rock moved, to move it.

If it just was last week, I wouldn't be as concerned. It was passed in 2003 and the President signed it, and it is still lounging around, and we can't seem to get anything done.

My question to you is a little bit broader than that, as important as that is, because we have added emergency funding, fire grants, et cetera. What advice would you give the firefighters and other first responders through the rest of the country as they prepare to be volunteers? Because ultimately the bulk of our first responders are volunteers.

And I believe, in your testimony, you said the Federal first responders. Well, if you look at the people who respond across America, they aren't Federal first responders. They are a very small part of it.

Now, granted that is our first step, but a broader issue is, if we are going to ask people to respond along the interstate highways of this country and the airports, et cetera, et cetera, my guess is they aren't Federal folks; they are local first responders. What do we say to these folks and what is our obligation to them to help?

So let me ask you first, Dr. Krohmer, what else should the Federal Government do to be prepared to address the health needs of first responders when they respond to the next catastrophe, if we aren't keeping a good list of those who responded in the past? When I just heard you testify that across the country, we don't have that list. What do we say to them?

Dr. KROHMER. Well, I think your point about the responders in the country being first responders from the local communities is right on, I think, sir. I spent 20 years as an EMS physician and worked very closely with folks in the fire service and emergency medical services. I think that we have to continue to be very sensitive to their needs. We need to continue to work very closely with them—

Mr. ETHERIDGE. What does that mean, when you say “being sensitive”?

Dr. KROHMER. I think we need to work very closely with them to identify the issues that are of concern to them, figure out ways that we, at the Federal level, can support those.

I mean, I don't know that it is any of the Federal agencies' responsibilities to dictate to a local police department, fire department or EMS agency that they need to do particular things. I think that we can establish standards and metrics to identify and highlight best practices and provide them with potential resources to do that.

Mr. ETHERIDGE. Well, let me ask the question a different way then.

There are Federal highways, Federal aviation, there are Federal arteries in this country. And since 9/11, we have asked the local responders to respond. Now, they go, they get injured, they have long, lingering consequences. Do we not have an obligation, in some way, to help there, to their families? In most cases, these are single wage earners; they don't have a lot of money; they are volunteers.

Dr. KROHMER. Well, I think probably more importantly than working with the individual first responders is working with the agencies that employ them, and identify ways that we can help agencies.

Mr. ETHERIDGE. A lot of these folks come from small, independent businesses.

Dr. KROHMER. Well, but they are part of an organized response structure, whether that be a local fire department or volunteer fire department or local EMS—

Mr. ETHERIDGE. Are we doing anything to do that now?

Dr. KROHMER. I am not familiar with programs—

Mr. ETHERIDGE. Would you get back to me on anything in that regard? It seems to me that is what the Department ought to be doing, if we are depending on them as our backbone, which, seems to me, that is how we are going to get there. Otherwise, because we can put all the people we want to in big buildings and we can do all the paperwork we want, but unless they respond to the call, the job doesn't get done.

Dr. KROHMER. Correct.

Mr. ETHERIDGE. And they are doing a marvelous job. I mean, let's face it.

Dr. KROHMER. They are.

Mr. ETHERIDGE. But I think, in a lot of cases, we don't really follow through. We finish up and talk about the last disaster, and then we start talking about getting ready for the next one. And unfortunately, we aren't always ready, and that bothers me greatly. I think that is what the chairman was getting to.

And I have some other questions, Mr. Chairman, if we get to a second round.

Chairman THOMPSON. Thank you very much.

We have about 4 minutes left for votes. We have four votes. We will adjourn the hearing and reconvene in about 20 minutes. Thank you.

[Recess.]

Chairman THOMPSON. We would like to reconvene the hearing.

Our next questioner is Dr. Christensen from the Virgin Islands, for 5 minutes.

Mrs. CHRISTENSEN. Thank you, Mr. Chairman, and thank you for having this hearing. This is a very important issue.

Let me try to get in about three questions, if I could.

Doctors Howard and Krohmer, I am not sure that—I do not think we quite answered this question. During the World Trade Center disaster and Hurricane Katrina, there was not an agency directed to coordinate and identify a greater roster of all of the respondents. In the future, which agency is responsible for this, for creating that roster, the list of all of the responders?

Dr. KROHMER. Of all of the responders who were taking part in the response or who were—

Mrs. CHRISTENSEN. Who were on the ground, taking—

Dr. KROHMER. That is an interesting idea, and I do not know that that has occurred to us.

Mrs. CHRISTENSEN. How do you keep track of who came and who responded so that we can do the exams and the monitoring and so forth? Which agency keeps track?

Dr. HOWARD. One of the issues from the World Trade Center experience is that many governmental agencies, both on the city, State and Federal levels, did keep track. We have some good census data from those agencies. Where we really do not have good data is in the affiliated and unaffiliated volunteers. The Red Cross and the Salvation Army did a pretty good job, but a lot of folks in New York and for any disaster, they just come to help, and they are not affiliated with a particular agency. So, a lot of times, we do not capture those individuals.

But my answer to that question would be the incident commander of the disaster really is the census-taker, in my view.

Mrs. CHRISTENSEN. Is that worked into exercises now? We have one coming up in October. Is there something in the National Response Framework that speaks to coordinating a list of responders so that we can follow them?

Dr. KROHMER. As Dr. Howard mentioned, it is the responsibility of the incident commander of the event. I do not know if there is a Federal agency that has assumed responsibility for that.

Mrs. CHRISTENSEN. Do I understand that we still do not have any way of reaching those who came from outside of New York City and who are not Federal responders, to have them examined and monitored? If that is true, what is going to be done about that?

I know I had responders. I am sure just about everybody on this committee had people going to New York, for example, to help, and to Katrina as well.

Dr. HOWARD. Well, certainly, you make an excellent point. If we do not have a total census, then you cannot really know afterwards

who was there at the time. So what you have to do is use alternative mechanisms. You have to look into the search and rescue logs of responders, who are by State, and see if any of them came. You have to reach out to them. You have to do a lot of outreach. For instance, in the Virgin Islands and in Puerto Rico, we have had to reach out to individuals who were part of that response structure and say, "Were you there in New York? We want to make you aware—"

Mrs. CHRISTENSEN. So you have done that?

Dr. HOWARD. We have tried very hard to make sure that everyone who we think might have shown up at least is aware of our monitoring program. But it is after the fact.

Mrs. CHRISTENSEN. Okay. Well, we realize that there was not what needed to be in place at the time, so that it had to be after the fact.

I am concerned. I do not think I heard much about mental health today, and during both of those events and probably many others the mental health needs of the responders have not been, I think, adequately addressed.

So what steps are being taken to better coordinate mental health needs during a response? Given that we still do not have mental health parity, what about those who are affected for the long term? What is in place for that?

Dr. HOWARD. I think the mental health effects, the emotional health effects, of being a disaster responder are the real frontier in the area of responder safety and health.

As an example, in the Annals of Psychiatry this month, the New York City World Trade Center Health Registry did a paper showing that the average post-traumatic stress disorder in responders went from about 6 percent in police officers up to 21.2 percent in unaffiliated volunteers, and this speaks to the issue. For an unaffiliated volunteer, someone whose profession is not disaster response, we have to be very careful with those individuals in making sure that they have some pretraining and that, at the time, they are not exposed to some of the stressors, the mental health stressors, at any disaster. And at the World Trade Center, they were quite severe over prolonged periods of time. Because, then, what will happen is that we will get a higher prevalence of PTSD afterwards.

So that is, to me, one of the most central lessons learned, in terms of folding in mental health both at the time of the deployment and then afterwards to assess a responder about what symptoms he or she might be feeling in terms of mental health issues.

Mrs. CHRISTENSEN. Thank you.

Thank you, Mr. Chairman.

Chairman THOMPSON. Thank you very much.

I will now yield 5 minutes to the gentleman from Indiana, Mr. Souder.

Mr. SOUDER. Thank you, Mr. Chairman.

I am sorry I missed the opening statements. I did my best to catch up there as I came back.

I am interested a little bit in the differences—obviously, when you are doing rescue, you are at higher risk than when you are doing recovery. Could you discuss that briefly?

Then, in the Katrina situation, obviously, people pour in, and they start seeing the needs. I would like you to expound a little bit more on how you deal with the people both in rescue and recovery and how it might differ.

Also, in Katrina, when our first group of Members were allowed in, they took us to a site in Mississippi, showed how the government was dealing with all of these things. And what we quickly learned on the ground, which, to my understanding, what is typical is that the nonprofit religious organizations were there roughly 7 days before the first government people were really getting involved. And I had people pour in from my churches down in there.

How in the world—I mean, you talked a lot about what we do with government employees, and then you have State and local employees. But what about even the nonprofit sector, which, in recovery, almost anybody who looks at it—and when I challenged FEMA as to why they represented this as the model FEMA recovery effort, they said, “Well, of course the religious groups are usually there as much as a week before we are all set up.” I even visited a Buddhist organization that is often among the first there at these sites. And the government does not even necessarily know they are there, but clearly, they are facing all kinds of health risks in these kinds of situations.

Do you view, as part of your mission, to deal with the nonprofits, as well as the State and local responders and the Federal? Then, if you can separate that, your answers, a little bit into rescue response in the nature of risks.

Thank you.

It is to any of you who want to take parts of that.

Dr. KROHMER. Well, I think, certainly, from a techniques perspective, there are issues in terms of activities we would employ for rescue versus recovery. I think, in terms of the overall health and safety issues, they are probably fairly similar based on the environment that the folks are working in. I think one of the things—

Mr. SOUDER. Let me see if I have a layman's understanding. If you think somebody is trapped in a house and they are going to die if you do not enter, you are likely to take more risks of whether that water is dangerous to your life, whether it is dangerous to your health, in order to save another life in a matter of minutes as opposed to recovery afterwards.

Dr. KROHMER. Oh, certainly, from that perspective, that is very true. I was looking at the environment as being not terribly different from a rescue phase versus a recovery phase. You are still faced with the same environmental and potential health and safety risks.

The issue of—

Mr. SOUDER. Well, I am still confused. This is kind of a fundamental thing, but wouldn't the health and safety risks be substantially higher in the initial rescue than the recovery? Because, partly, you would have more time, you would have more time to calculate your decision. The place may be on fire. The intensity has not been dispersed as much in the pollutants that enter the water. Why would you say the risks are roughly the same, health risks?

Dr. KROHMER. The risks are the same. How the rescuers respond to them, I think, is different in those two scenarios. You are cor-

rect. In a rescue scenario, there are a lot of situations where folks may not take the time to put on all of the personal protective equipment that they may have available to them during a recovery operation. We need to look at all of the environmental factors and make sure that the first responders have the appropriate PPE available during the rescue phase that they would likely also have available during the recovery phase. So, from a rescuer perspective, I think that there are some issues that we need to address.

I think, in many situations, the environmental threats that they are faced with are very similar, okay? You may have a fire in a rescue situation and not have a fire in a recovery situation, but a lot of the other environmental issues are very typical.

Mr. SOUDER. Would it be a different case, then, with smoke and chemicals, as to whether it is a water scene or it is the ashes that came out of 9/11? You are going to have dissipation over days that you do not have in the intensity of the first.

Dr. KROHMER. Correct, but there may also be other environmental issues that would develop over a period of days that do not occur during—these are all things—

Mr. SOUDER. Briefly, because I know I am out of time, and I cut into the answer: Could somebody address nonprofits briefly? Because they are not going to have as much equipment when they are there, but they play such a critical role, particularly in the earliest days.

Dr. HOWARD. Yes, sir. I think your question is extremely complex. The way that I would break it down is between trained responders and untrained responders.

For an emergent situation, trained responders obviously can evaluate the risk and take the proper precautions, but if you have an emergent situation or even a less-than-emergent situation, when you have untrained responders, good-thinking people from churches, nonprofits, et cetera, who want to do their best, they need to know that they may not be aware of all of the risks that that rescue or recovery that they are involved in present. And that is why it is critically important that all individuals/entities, whether they are nonprofit or governmental or whatever, have the proper training.

One of the things that we are trying to do at NIOSH is to bring all of that experience together. We have a four-volume set of information that we provide to local fire departments, volunteer and otherwise, and to local response agencies so that they can then cascade that down to all types of volunteers, including churches, private sectors, et cetera.

Mr. SOUDER. The government had no water. You can sit there and say they were not trained, but bringing water was essential in those first days, and it was not there from the government. Hopefully, we will improve those kinds of things.

But particularly, I am interested in follow-up on what you are doing with the faith-based groups, which is clearly the big element of the first responders that has not really been officially acknowledged as much.

Dr. HOWARD. Right, and I agree with that. I think the key is educating any kind of responder about the risks of response.

Dr. KROHMER. Agreed.

Chairman THOMPSON. Thank you.

I will now yield 5 minutes to the gentlelady from New York, Ms. Clarke.

Ms. CLARKE. Thank you very much, Mr. Chairman.

As you are aware, being a New Yorker from New York City, this is a matter of deep concern to me and to my constituents.

Many tens of thousands of first responders who heroically came to the scene and helped New York and the entire country recover from the worst attack in U.S. history are now either getting sick or are in danger of doing so because the Federal Government failed—and I emphasize “failed”—in its duty to protect first responders who worked at the World Trade Center. Part of the Government’s failure was due to the fact that the Occupational Safety and Health Administration, which possesses the expertise to help keep workers safe, was not used immediately, and when it was brought in, its role was not clearly defined.

Now, DHS has the NRF, a new plan for coordinating responses to disasters, which I hope would improve the role of an agency that is designed to keep first responders safe. However, last week, I attended a hearing in another committee where OSHA testified that their response role remained minimized and that they have minimal input in planning.

Dr. Krohmer, I would like to direct this question to you. Can you tell me exactly what is the role of OSHA in the new National Response Framework? Has its role been modified at all, and has it been granted a stronger voice in this process?

Dr. KROHMER. It is my understanding that its role had not been modified at all, but I will check with you and make sure. I have not looked specifically into that, but I will find out and get back with you.

Ms. CLARKE. Mr. Chairman, I would ask that we make sure that that material is given to us, because, as a member of the Education and Labor Committee, it was testified that their role has been modified.

Chairman THOMPSON. Well, maybe the GAO can help with OSHA’s role as they saw in their review.

Ms. BASCETTA. I only have current information as of what occurred at Hurricane Katrina, and I do not have current information about the most recent articulation of their role in the National Response Framework. But it is a very important question, and it needs to be resolved.

Chairman THOMPSON. We will make sure the question is answered.

Ms. CLARKE. Thank you very much, Mr. Chairman.

Ms. Bascetta, I understand that the GAO was told that FEMA assigns and funds specific responsibilities for many agencies only after a disaster. Does this grant agencies enough time to mobilize after FEMA calls?

And how capable is FEMA of assigning these responsibilities and in coordinating a response quickly after a disaster? After all, we all recall how poorly FEMA coordinated the responses to the hurricanes 2 years ago.

Ms. BASCETTA. That is a good question.

I think there has been a mixed experience with that. I can say that, in the work that we did, looking at long-term monitoring, that there was a delay that caused problems in terms of setting up monitoring programs and that, in fact, in New Orleans, monitoring did not happen at all. And one of the disagreements was between OSHA and FEMA about who was responsible for doing this, whether it should be done and how it would be funded.

Ms. CLARKE. Dr. Krohmer, the response of the Federal Government to the health concerns faced by many of the first responders impacted by the debris of the World Trade Center is to provide screening but nearly nothing in the way of providing actual care for the maladies many of them face. This has led many people to question whether they could respond in the same way in the future, putting their health and their families at risk.

Do you feel that the Government must be able to guarantee that we will help first responders with related health problems if we are to get a full response to disasters in the future?

Dr. KROHMER. I think we need to look very closely at the issue of being able to include treatment as part of the response that is offered to folks. Yes, I agree with you.

Ms. CLARKE. Has that conversation begun, as of yet? I mean, this is clearly something that we must be prepared for. We do not know what happens, day to day, in our Nation. We hope that we can put all kinds of prohibitive actions in place to make sure that we are safe in the homeland, but you know, at any given moment, given the world we live in today, I think these are issues that have to really be in the forefront of our minds, given what we know and what we have experienced already.

Has there been the type of conversation that you feel comfortable with that would address what we know will be a challenge for those who respond to the call of duty, that is, that we can guarantee that their health concerns will be addressed in a timely fashion and that we will not see the type of hesitancy that seems to be a part of our culture right now that needs to be addressed?

Dr. KROHMER. As I mentioned in an earlier part of the testimony, many of the activities that the Office of Health Affairs has been involved with and is in the process of developing have just started over the last couple of months. We have had some internal discussions about those, but they are extremely complicated, in terms of private insurance and public insurance and who all is going to cover what.

We have had those internal discussions and fully plan to continue having those discussions, but they have been very preliminary on the part of our office.

Ms. CLARKE. I would like to suggest to you, Doctor, that this should be a priority. You know, we want to get ahead of the curve, with respect to this matter. Again, we are not determinants of what can happen in our Nation, be it a natural disaster, be it a terrorist attack, but we can learn from, you know, the experiences we have had and be prepared to address it.

I would hate to be in a situation where my life is in jeopardy and there are individuals who have the expertise and the know-how to be there at my aid, and they are thinking, you know, "Do I enter this dangerous situation because my personal health and well-

being will be at risk and there will be no one there to support me at the end of the day?" This has to become a part of our culture.

Dr. KROHMER. Oh, I agree with you completely. I have been there, yes.

Ms. CLARKE. Thank you very much, Mr. Chair.

Chairman THOMPSON. Thank you very much.

I will now yield 5 minutes to the gentleman from Texas, Mr. Cuellar.

Mr. CUELLAR. Thank you, Mr. Chairman.

One question for all three of you: If I were to have one of my constituents ask me this question, how would you answer this without going into specifics? As you know, I did not have the opportunity to be here and to listen to the details and get copies of the testimonies in advance, but if I asked you—as you know, the title of this hearing is “Protecting the Protectors” and “Ensuring the Health and Safety of our First Responders” in the wake of, you know, these types of disasters.

What would be the top three things that we have done to ensure their safety and their protection, number one?

The second part is: What are the three deficiencies? Where do we need to go?

I need a one, two and three outline on each of them, the strengths where we have done well and where the deficiencies are. And it is the same question to each of you.

Dr. Krohmer, do you want to go first?

Dr. KROHMER. I think there are three issues that we have done to ensure their safety. We have improved the incident management system, which is very critical to coordinating the overall response, and it addresses some of the other issues that you had identified earlier. We have identified what additional issues there are, in terms of some of the environmental things.

Mr. CUELLAR. You are now on number two—

Dr. KROHMER. Correct, number two.

Mr. CUELLAR. —for the strengths? Okay.

Dr. KROHMER. We have much closer coordination now among the medical aspects, among the medical components—public health and health care.

In terms of deficiencies, I think that there is still a large part of the response community, some of the unsolicited volunteers who Dr. Howard has referred to, who are still not well-incorporated into that. And we need to address that.

Mr. CUELLAR. That is number one?

Dr. KROHMER. That is number one.

Mr. CUELLAR. Okay. So what do you call that, “better integration”?

Dr. KROHMER. Better integration of unsolicited volunteers.

Mr. CUELLAR. Okay.

Dr. KROHMER. I think probably one of the other deficiencies—and I am not sure I can come up with three. A second one is, although our surveillance programs are better now than they were previously, I think we still have room to improve them from a pre-exposure assessment to continued monitoring throughout the event and post-event.

Mr. CUELLAR. So how do you summarize number two?

Dr. KROHMER. More coordinated in structured surveillance programs throughout the continuity of the event.

Mr. CUELLAR. All right.

Dr. Howard?

Dr. HOWARD. My turn for the pop quiz. Okay.

So, number one, I would put the emphasis that we now have on responder safety and health through the Worker Safety and Health Annex in the National Response Plan. I think that is a positive step.

The second I would put is our own work at NIOSH to emphasize that integrated safety management, bringing all of the responder agencies—private, public, whoever shows up—into the same safety management structure is a very important advantage that we have discovered, and we have incorporated that. DHS has incorporated it into their targeted capabilities list.

Three, at NIOSH, we have done a lot of work in ensuring that respirators are suitable for the kind of work that long-duration disasters require. We were not prepared for that before the World Trade Center. We are better prepared.

I think the things that we still have to do, and on the flip side, are, number one, that I do not think we have elevated worker safety and health within the National Response Plan high enough. Even though we have an annex for it, I think it needs to even move higher.

I think the second issue is the same one that—

Mr. CUELLAR. Let me ask you, how do we elevate that?

Dr. HOWARD. Well, you can make it an emergency support function. You can make it an ESF, as opposed to an annex to an ESF. That would be very—that is what I am talking about.

Mr. CUELLAR. Can I interrupt you for a second?

Dr. HOWARD. Sure.

Mr. CUELLAR. Homeland, how do you respond to that?

Dr. KROHMER. I think there are a little bit of semantics there. We can very easily elevate the importance of it, the focus on it, and still allow it to be a support function, a support annex. Well, actually, I would have to look at it, because it applies to enough of the—

Dr. HOWARD. The issue of the annex is only triggered by the keeper of the ESF, and that is FEMA. So OSHA has to wait until FEMA activates their ESF. If it is an ESF, OSHA does not have to wait for FEMA to do it. That is the important distinction here.

Mr. CUELLAR. Do you agree with that distinction, Dr. Krohmer?

Dr. KROHMER. Well, it would be. Then we would need to identify who the lead agency for that particular ESF would be. From my perspective, there is enough overlap. That may be a little bit difficult, but we could work on that.

Mr. CUELLAR. Could I ask, maybe, Mr. Chairman, to follow up on that and then follow up with the committee on that conversation?

Chairman THOMPSON. Okay. Sure. Absolutely.

Are you prepared, Dr. Krohmer, to follow up with the committee on that?

Dr. KROHMER. Yes.

Dr. HOWARD. Let me point out that it has to be followed up with OSHA, not NIOSH. This is an OSHA issue.

Mr. CUELLAR. I am sure you all have good working relationships with them.

Dr. HOWARD. We do.

Now, I think I was just getting over number two, and number two is the same issue Dr. Krohmer mentioned. Unaffiliated volunteers, spontaneous volunteers, people who show up at a site, they may not be associated with any particular entity. We need to grab those people as soon as their hearts lead them in the right direction. These are heroes in waiting. They are doing wonderful things. They think they are indestructible. They may not be aware of the hazards associated with responding. Somehow, we have to have a structure where we can grab those people, and if they are untrained—and many of them are—we have to grab them before they actually go on the site and train them. And that is a real tough one, and I am not sure I have the answer to that.

Then the third one, I think, is the mental health issue, which we have talked about this morning here. People imagine themselves capable of doing things emotionally and mentally that, once they get into a situation, they find out they are not indestructible from a mental health perspective. And that is a part of training that we need to do, both for trained volunteers, people who do this for a living, whether you are police or fire or Red Cross or whatever, as well as and especially for people who do not do this for a living but decide to respond. This is an area that we really need to spend some time on, too.

Mr. CUELLAR. Gentlemen, I am out of time.

Chairman THOMPSON. Thank you. We have been very liberal with the time, so do you want to ask another question or—

Mr. CUELLAR. No. I just wanted her to finish the question. I am not going to ask any more questions. I would just like to give her the courtesy to finish that question.

Chairman THOMPSON. Thank you.

Ms. BASCETTA. I would be happy to answer.

I think that positives are that we know how to do monitoring, both during the response and we know how to do long-term monitoring. We know how to do good research to monitor what the long-term health effects might be.

And I think we are making more progress as a society in acknowledging the importance of mental health. We see this with our Armed Forces. We see this with our firefighters and police officers. So, while there is a lot of work to do, I think there is a growing acknowledgment of the importance of mental health.

I think the biggest problems are operationalizing what we know how to do and making sure that it, in fact, gets done and that some of the most basics, like keeping track of who has responded, are accomplished. Because if we do not know the denominator, it is going to be very hard to track these people and to figure out what kinds of health effects they truly did experience in a scientifically valid way.

I also think that handling the treatment issue in advance is very important. People need to know how they are going to be cared for and where the financial responsibility is going to lie, whether it is

going to be with Workers' Comp or with their own health insurance or some mix of payers.

Mr. CUELLAR. Thank you, Mr. Chairman.

Chairman THOMPSON. Thank you very much.

I will yield 5 minutes to the gentleman from Pennsylvania, Mr. Dent.

Mr. DENT. Thank you, Mr. Chairman.

Good morning.

I guess my question is really to all three of you. In your view, what do you think are the most important lessons learned from the response to the World Trade Center site regarding first responders' health and safety? I thought, maybe, we would just go right down the list there.

Dr. Krohmer?

Dr. KROHMER. This is probably a personal perspective.

The issue of—we have touched on it several times already—identifying who all of the rescuers are. The unsolicited volunteer was a very critical issue. And then the surveillance programs, as we have talked about.

Dr. HOWARD. Similarly, I would also emphasize those.

Very tight perimeter control, central safety management, and a responsible party who determines total responder census so that we can identify these individuals after they leave the site if we need to medically monitor them.

Ms. BASCETTA. We have noted three in our work so far, and those include quickly identifying and contacting responders and others, centrally coordinating an approach for assessing the individuals' health effects, and addressing the importance of both physical and mental health.

Mr. DENT. Based on what you just said, do you believe that steps have been taken to address those lessons? Do you think we are where we need to be in the event of a future disaster?

Ms. BASCETTA. No, we do not think so.

Mr. DENT. Okay. That is true of all three, that we are not where we need to be?

Dr. KROHMER. Correct. I think we have made some very nice progress, but we are not where we need to be.

Mr. DENT. Okay.

Then, I guess, my next question would be to Dr. Krohmer: What guidance does the Department of Homeland Security provide to its State and local partners to help them protect the health and safety of our first responders?

Dr. KROHMER. Most of the guidance that we have provided historically has been based on the guidances that have been provided in the grants. As resources become available—and it is probably going to be in the next year or 2 and in the outyears—through the Office of Health Affairs, we are looking at developing a program of specific outreach to the State and local folks that will be working through the FEMA regions, working in coordination with the HHS regional preparedness coordinators but, much more specifically, making sure that the State and local folks, from a health care and a public health perspective, are much more integrated into the emergency management community and in the planning activities that occur.

Mr. DENT. Okay. Thank you.

My final question is this: The SAFE Port Act of 2006 contains a provision requiring the Secretaries of HHS and DHS and, I think, the EPA Administrator to jointly enter into a contract with the National Academy of Sciences to conduct a study and to prepare a report on disaster area health and environment protection and monitoring.

What is the status of this initiative?

I guess we should again start with you, Dr. Krohmer.

Dr. KROHMER. Quite honestly, sir, I was not aware of the provisions of that act until we started to do some of the background information for this hearing. And we are in the process of trying to identify the current status, so I will have to get back with you on that.

Mr. DENT. Dr. Howard?

Dr. HOWARD. My understanding is it was authorized, not appropriated. But I would like to point out that it is really a remarkably excellent roadmap for a medical monitoring program post-disaster.

Mr. DENT. Ms. Bascetta?

Ms. BASCETTA. I do not have current information on the SAFE Port Act.

Mr. DENT. Thanks, Mr. Chairman. I yield back.

Chairman THOMPSON. Thank you very much.

I will now yield 5 minutes to the gentlelady from the District of Columbia, Ms. Norton.

Ms. NORTON. Thank you very much, Mr. Chairman.

This is an important hearing. I think it is important to have, particularly here in the District of Columbia, where we have already had incidents where it is its own version of Ground Zero for, particularly, first responders who rush to the scene, often without—almost always without—any thought of their own health.

I am wondering if you know of any health officials who were contacted when the first issues involving formaldehyde in trailers in Louisiana were raised. Do you know of any health officials who were contacted before the Government responded on that issue?

Dr. KROHMER. We were contacted by folks at FEMA, I believe, in May of this year. We did not have any prior contact.

Ms. NORTON. I ask because, on the day the story broke, I was having a hearing with FEMA on another issue, and I, of course, inquired about this formaldehyde that was hitting the news, and they told me that they were sure that the formaldehyde had absolutely no negative effects.

Subsequently, in another hearing, the oversight hearing, very harmful, harmful testimony came out about the suppression of the possibility of harm in formaldehyde in those trailers. And evidence was brought forward in which it was said that lawyers said that it was best to move ahead and not to make inquiries because of liabilities that might arise. Well, the liability is going to arise now because it is clear that people knew or should have known that there was harmful formaldehyde in those trailers, so they really made it worse.

My question to you is: Before anybody opines or makes a policy judgment when there is a health issue related to a natural event or to a terrorist event, shouldn't there be a link to some health pro-

professionals before any administration decides what to do? Is there any link that you know of? Or are policymakers free to just move forward without contacting anyone to get an expert medical or health opinion on whether there is a danger to public health?

Dr. KROHMER. I think the concerns that you bring up are very important concerns, and at least based on my understanding, they are one of the issues that led to the formation of the Office of Health Affairs within Homeland Security. Within our office, our Office of Component Services is going to be specifically looking at workforce protection and occupational health issues.

I would note that, since we brought on board the Associate Medical Officer in January of this year, the Associate Medical Officer for Component Services, he has been working very closely with FEMA and with other DHS components. And I think, much to his credit, he is being called very frequently within the Department for public health and health care issues.

So it is a critical issue, from our perspective, and that is why we are moving forward with this office.

Ms. NORTON. It was clear to me that the policymakers did not know what to do and saw an issue foaming up, and when you do not know what to do and you do not know where to turn, there are people who just suppress it.

And of course, there were hundreds of people in these trailers. I was very concerned, not only for that reason but because, when the trailer issue came before us in another circumstance, what we wanted to know was why they were stockpiling all of these trailers and not trying to offload some of them and sell some of them. Now we come to find out that they are really not trailers that probably should be sold to anybody.

It does seem to me that the implications here are certainly for the workforce, but here, where FEMA has to take personal responsibility for people it puts into such trailers and then, in a panic, suppresses or is told to suppress, that is where the evidence was just as clear. They had the memos where the lawyers said, "Do not press this. If you press this, you might expose us to liability."

First of all, you need to get another lawyer, because the question of liability does not go to suppression; it goes to no one should have known. And so, the notion that it would never come out is very poor legal advice, but it is the kind of advice you give first when you are not entirely honest but also when you do not have any resource to go to. Because the first instinct should have been to say, "Get somebody in there who knows something about health issues and formaldehyde to see if we have any liability and to do something about it quickly so as to mitigate any liability."

Dr. KROHMER. If I may, Mr. Chair, it is my understanding that, when the issue first came up, representatives from FEMA did contact representatives from the CDC. In the information that we have been able to identify, there is some conflicting information in the scientific literature about the significance of sensitivities. A lot of it has the potential of being very individualized.

Having said that, we are in the process now of working very closely—FEMA, with some consultation from us, is in the process of working very closely with the CDC, some consultation with NIOSH, to do some specific environmental monitoring and environ-

mental sampling to try and get a better handle specifically on these trailers, what the levels are and what the issues may be.

Ms. NORTON. Thank you.

Thank you, Mr. Chairman.

Chairman THOMPSON. Thank you very much.

We would like to thank the first panel of witnesses for their valuable testimony and members for their questions.

The members of the committee have additional questions for the witnesses, and we ask that you respond expeditiously in writing to any of those questions.

Thank you again.

Let me, before you leave, say that, as Chair, I am concerned that we do not keep a roster of Federal responders to natural disasters. That is absolutely critical. Now, that is what I heard from the testimony today. I stand to be corrected if we do not.

Dr. Krohmer?

Dr. KROHMER. I would just observe that I do believe we keep a roster of Federal responders. What becomes difficult is when there are additional citizens and unsolicited volunteers who respond. It is more difficult to catalog those.

Chairman THOMPSON. So we keep Federal, but State and locals is left to State and locals?

Dr. KROHMER. Correct.

Chairman THOMPSON. No one keeps the other roster of other volunteers who respond to disasters; is that correct?

Dr. KROHMER. As the volunteers become incorporated into the response structure, they are cataloged—it is my understanding that they are cataloged. But if they are not a part of the response structure, if they do not identify themselves to folks on scene, they may not be included. Correct.

Chairman THOMPSON. Thank you.

GAO, I am going to give you the last response on that.

Ms. BASCETTA. Thank you.

I am not aware of a requirement for the keeping of a roster of the Federal employees who responded. It is true that some agencies kept track on their own, but it was not through a centralized process. It needs to be explicit that that be done. It is absolutely fundamental.

Chairman THOMPSON. So there is no uniformed process to keep up with the Federal responders to any disaster, be it 9/11, Katrina, the Pentagon situation—

Ms. BASCETTA. Right. That is correct.

Chairman THOMPSON. —to your knowledge?

Ms. BASCETTA. That is correct. That responsibility has not been assigned. That is correct.

Chairman THOMPSON. I yield to the gentleman from North Carolina for the last comment.

Mr. ETHERIDGE. Very, very quickly. Wouldn't it be just as easy, in working with these local folks and in working with State and local officials, to ask them if they have people at these major catastrophes to submit that to the Federal and have a place where we could keep that, along with our Federal folks, as to who has responded to these natural disasters?

Dr. KROHMER. Well, I think that is something we could easily pursue, yes.

Chairman THOMPSON. Thank you.

Again, we thank the panel.

And we call up the second panel of witnesses.

I welcome the second panel of witnesses, and I appreciate your indulgence for the questions, but as you can see, there were some things we needed, I think, to get on the record in anticipation of this panel, because I think your testimony flows right into some of the overall reasons for having this hearing.

I welcome you, as I said.

Our first witness will be Dr. Philip Landrigan, who is the professor and chair of Community Preventative Medicine at the Mount Sinai School of Medicine, who you heard referred to by our ranking member in his opening statement. Mount Sinai runs one of the centers in the World Trade Center Worker and Volunteer Medical Screening Program that provides medical screening exams for first responders, workers and other volunteers who worked at Ground Zero. In addition to this work, Dr. Landrigan spent time at the CDC, where he directed research for the global smallpox eradication program, among other efforts.

Our second witness is Nicholas Visconti, Deputy Fire Chief, Fire Department, City of New York. Chief Visconti, who I see Representative Clarke knows very well, was there on September 11, responding after the attacks on the World Trade Center. Chief Visconti has also worked extensively with the Uniformed Fire Officers Association in New York. He has been a New York firefighter for nearly 39 years.

Congratulations.

Our third witness is Dr. Mike McDaniel, Secretary of the Louisiana Department of Environmental Quality. Dr. McDaniel is an environmental scientist who has worked for more than 35 years doing environmental investigations and ensuring regulatory compliance. Prior to his current position, he served as executive director of the Baton Rouge's Clean Air Coalition and as president of DOE, the Greater Baton Rouge Clean Cities Coalition.

We thank all three of you for being our witnesses here today and for your service to the cities and States you represent, as well as the Nation.

Without objection, the witnesses' full statements will be inserted into the record.

I now ask each witness to summarize his statement for 5 minutes, beginning with Dr. Landrigan.

STATEMENT OF DR. PHILIP J. LANDRIGAN, MD, PROFESSOR AND CHAIRMAN, DEPARTMENT OF COMMUNITY AND PREVENTIVE MEDICINE, MOUNT SINAI SCHOOL OF MEDICINE

Dr. LANDRIGAN. Good morning, Mr. Chairman. Thank you for having convened this hearing and for having invited me. And my thanks also to the other representatives from New York who have been present here this morning, Ms. Clarke and, earlier, Mr. King. And I also wish to thank those members of the Congress under the leadership of—

Chairman THOMPSON. Excuse me. Is your mike on?

Dr. LANDRIGAN. Now it is, sir.

Chairman THOMPSON. Thank you very much.

Dr. LANDRIGAN. I wish to thank those members of the Congress, under the leadership of Congresswoman Maloney, Congressman Jerry Nadler, Congressman Fossella and the whole New York delegation, who have introduced legislation supporting medical care for the 9/11 responders.

Well, as you mentioned, I am the chairman of Community and Preventative Medicine at Mount Sinai, and the World Trade Center medical responder programs are based in the department that I chair.

Let me speak first about the nature of the workforce who converged at Ground Zero after 9/11. The witnesses on the previous panel touched on this same point. The key point here is that it was a very diverse workforce. It included the uniformed services, such as the firefighters, the police and the National Guard, who came with a structure and with a high degree of organization. But in addition to those trained responders, there was a wide array of uncounted volunteers. Indeed, we only know within an order of magnitude the total number of people who were there. Estimates range from a low of 40,000 to a high of 90,000, with no clear way of deciding precisely what the number is. And they obviously varied greatly in their training.

Secondly, I would like to say a word about the exposures to which these people were exposed. It changed over the course of the days following the attacks on the World Trade Center. The exposures were most intense, not surprisingly, in the first 24 hours. We all saw the dense cloud on TV, and we now know that 65 percent of the material that was in that cloud consisted of very alkaline pulverized cement from the destruction of the concrete in the towers.

The reason we believe that the dust was so toxic is that that alkaline dust had a pH of 10 or 11. My colleague Dr. David Prezant, who is the chairman of the medical program at the fire department, has described this as pulverized lye, and on another occasion, he described it as pulverized Drano. And it was extremely irritating to the upper and lower respiratory tracts of the men and women who responded. The toxicity of the dust was further magnified by virtue of the fact that it contained millions of microscopic shards of glass from all of the windows, and those are clearly evident on the microscope, and they further led to the irritation in the respiratory tracts.

Our group at Mount Sinai began to stand up the medical response to 9/11 on the 13th of September, 2001. Two days after the attack, our doctors gathered; they plotted a course and began seeing patients within weeks. We first received funding from the Federal Government through the National Institute for Occupational Safety and Health in June/July 2002, and that funding, initially for screening and now, today, for monitoring of the workers, continues. We have seen close to 22,000 workers total, and we have seen more than 7,000 for a second time. And the plan is to continue to see each and every eligible worker and volunteer every 18 months for as long as funding continues.

Also, since 2006, since approximately 1 year ago, we have had Federal funding for the treatment of these workers and volunteers. Prior to that, treatment had to be done using philanthropic money. And we have treated approximately 7,000 of the men and women for a range of conditions that include upper and lower respiratory, GI and mental health.

Briefly, let me summarize the principal medical findings. Forty-six percent of the workers whom we have examined, or the first 9,700 whom we have examined, were documented to have symptoms of their lower respiratory tract. Sixty-two percent had symptoms involving their upper respiratory tract. In the aggregate, 69 percent had one, the other or both.

Dr. LANDRIGAN. A high percentage have had gastroesophageal reflux disease, and a high percentage have had continuing mental health problems, depression, post traumatic stress disorder. In a number of these workers, those symptoms continue to the present.

There are, in my mind, two major unanswered questions. The first is how long and with what degree of severity will these conditions that I have just described continue. We don't know the answer to that on this day, and the only way we can come to know that is to continue to follow them at regular intervals and track and monitor and record the data.

Then the second medical question concerns the issue of what new diseases might emerge in these brave men and women in the years ahead, diseases of long latency such as chronic lung diseases, such as malignancies. We know that there was asbestos in the dust. We know that there was dioxin in the dust. The question is what may or may not be the long-term consequences of those exposures.

I think a couple of lessons learned that I would like to summarize in closing are, first of all, it was incredibly important that we had some pretty good monitoring of exposures, beginning shortly after 9/11. It could have been better, but it was nonetheless good, and I am able to talk with a high degree of confidence about the nature of the exposures, because records were kept.

Secondly, it is a lesson learned is that we can expect that responders who rush into these disasters are going to become sick and plans have to be put in place in advance for monitoring and for treatment, can't be left to chance, it can't be reinvented with each new disaster.

Thank you very much.

[The statement of Dr. Landrigan follows:]

PREPARED STATEMENT OF PHILIP J. LANDRIGAN, MD, M.Sc.

Good morning.

Mr. Chairman and Members of the Committee, I thank you for having invited me to present testimony before you today on the issue of "Protecting the Protectors: Ensuring the Health and Safety of our First Responders in the Wake of Catastrophic Disasters"

My name is Philip J. Landrigan, MD. I am Professor and Chairman of the Department of Community and Preventive Medicine of the Mount Sinai School of Medicine in New York City. I am a board certified specialist in Occupational Medicine as well in Preventive Medicine and Pediatrics. My curriculum vitae is attached to this testimony.

In my capacity as Chairman of Community and Preventive Medicine at Mount Sinai, I oversee the World Trade Center (WTC) Medical Monitoring and Treatment Program as well as the World Trade Center Data and Coordination Center, two closely linked programs that are based in my Department and supported by grants

from the National Institute for Occupational Safety and Health (NIOSH). It has been the responsibility of our programs at Mount Sinai and of WTC Centers of Excellence in New York, New Jersey and across the United States, with which we collaborate closely, to diagnose, treat and document the illnesses that have developed in the workers and the volunteers who responded to 9/11.

Today, I shall present a summary of our medical findings in the 9/11 responders. I shall comment also on the critical need for continuing support for Centers of Excellence that have the expertise and the hard-won experience that is essential to sustain high-quality medical follow-up and treatment for these brave men and women.

The Diverse Population of 9/11 Responders. In the days, weeks, and months that followed September 11, 2001, more than 50,000 hard-working Americans from across the United States responded selflessly—without concern for their health or well-being—when this nation called upon them to serve. They worked at Ground Zero, the former site of the World Trade Center, and at the Staten Island landfill, the principal depository for WTC wreckage. They worked in the Office of the Chief Medical Examiner. They worked beneath the streets of lower Manhattan to search for bodies, to stabilize buildings, to open tunnels, to turn off gas, and to restore essential services.

These workers and volunteers included traditional first responders such as firefighters, law enforcement officers, paramedics and the National Guard. They also included a large and highly diverse population of operating engineers, laborers, ironworkers, building cleaners, telecommunications workers, sanitation workers, and transit workers. These men and women carried out rescue-and-recovery operations, they sorted through the remains of the dead, they restored water and electricity, they cleaned up massive amounts of debris, and in a time period far shorter than anticipated, they deconstructed and removed the remains of broken buildings. Many had no training in response to civil disaster. The highly diverse nature of this workforce, and the absence in most of the groups who responded of any rosters to document who had been present at the site, posed unprecedented challenges for worker protection and medical follow-up.

The 9/11 workforce came from across America. In addition to tens of thousands of men and women from New York, New Jersey, and Connecticut, responders from every state in the nation stepped forward after this attack on the United States and are currently registered in the WTC Medical Monitoring Programs. Particularly large numbers came from California, Massachusetts, Ohio, Illinois, North Carolina, Georgia, and Florida.

The Exposures of 9/11 Responders. The workers and volunteers at Ground Zero were exposed to an intense, complex and unprecedented mix of toxic chemicals. In the hours immediately after the attacks, the combustion of 90,000 liters of jet fuel created a dense plume of black smoke containing volatile organic compounds—including benzene, metals, and polycyclic aromatic hydrocarbons. The collapse of the twin towers (WTC 1 and WTC 2) and then of a third building (WTC 7) produced an enormous dust cloud. This dust contained pulverized cement (60–65% of the total dust mass), uncounted trillions of microscopic glass fibers and glass shards, asbestos, lead, polycyclic aromatic hydrocarbons, hydrochloric acid, polychlorinated biphenyls (PCBs), organochlorine pesticides, furans and dioxins. Levels of airborne dust were highest immediately after the attack, attaining estimated levels of 1,000 to > 100,000 µg/m³, according to the US Environmental Protection Agency. Firefighters described walking through dense clouds of dust and smoke in those first hours, in which “the air was thick as soup”. The high content of pulverized cement made the dust highly caustic (pH 10–11).

The dust and debris gradually settled, and rains on September 14 further diminished the intensity of outdoor dust exposure in lower Manhattan. However, rubble-removal operations repeatedly re-aerosolized the dust, leading to continuing intermittent exposures for many months. Fires burned both above and below ground until December 2001.

Workers and volunteers were exposed also to great psychological trauma. Many had already lost friends and family in the attack. In their work at Ground Zero they commonly came unexpectedly upon human remains. Their stress was compounded further by fatigue. Most seriously affected by this psychological trauma were those not previously trained as responders.

The World Trade Center Medical Monitoring and Treatment Program. Although New York has an extensive hospital network and strong public health system, no existing infrastructure was sufficient to provide unified and appropriate occupational health screening and treatment in the aftermath of September 11. Local labor unions, who made up the majority of responders, became increasingly aware that their members were developing respiratory and psychological problems; they initiated a campaign to educate local elected officials about the importance of estab-

lishing an occupational health screening program. In early 2002, Congress directed the Centers for Disease Control and Prevention (CDC) to fund the WTC Worker and Volunteer Medical Screening Program.

In April 2002, the Irving J. Selikoff Center for Occupational and Environmental Medicine of the Mount Sinai School of Medicine was awarded a contract by the National Institute for Occupational Safety and Health (NIOSH), a component of the CDC, to establish and coordinate the WTC medical program. The Bellevue/New York University Occupational and Environmental Medicine Clinic, the State University of New York Stony Brook/Long Island Occupational and Environmental Health Center, the Center for the Biology of Natural Systems at Queens College in New York, and the Clinical Center of the Environmental &

Occupational Health Sciences Institute at UMDNJ–Robert Wood Johnson Medical School in New Jersey were designated as the other members of the regional consortium based at Mount Sinai. The Association of Occupational and Environmental Clinics was designated to coordinate a national examination program for responders who did not live in the New York/New Jersey metropolitan area.

In addition to this consortium, there is a parallel program based at the Fire Department of New York (FDNY) Bureau of Health Services, also supported by the federal government through NIOSH. This program has provided medical examinations to over 15,000 New York City firefighters and paramedics. The FDNY and Mount Sinai programs collaborate closely and use closely similar protocols for monitoring the health of 9/11 responders. A great strength of the FDNY program is that it had collected extensive baseline data on the health of each firefighter and paramedic through a periodic medical examination program that long predated September, 2001.

Nearly all of what we know today about the health effects of the attacks on the WTC has been learned through these medical programs that were developed in Centers of Excellence funded by the federal government.

The Centers that comprise the consortium based at Mount Sinai provide free comprehensive medical and mental health examinations for each responder every 18 months. Examinations are undertaken according to a carefully developed uniform protocol, and all of the data obtained on each responder are entered into a computerized database. The goals of the program are two:

1. To document diseases possibly related to exposures sustained at the World Trade Center;
2. To provide medical and mental health treatment for all responders with WTC related illnesses, regardless of ability to pay.

To date, thanks to federal support, over 21,000 WTC responders have received initial comprehensive medical and mental health monitoring evaluations in the Centers of Excellence that comprise this consortium. More than 7,250 of these responders have also received at least one follow-up examination. Demand for the program remains strong. Even now, six years after 9/11, approximately 400 new workers and volunteers register for the program each month. In August 2007, 771 new participants, persons whom we had never previously seen, registered for the program through our telephone bank.

Our WTC Medical Treatment Program has also been active. We launched this program in 2003 with support from philanthropic gifts. Philanthropic support provided the sole financial base for the treatment program from 2003 to 2006. Since September, 2006, we have begun to receive support for this program from the federal government. To date over 6,300 responders have received 47,000 medical and mental treatment services through this program.

Health Effects Among WTC Responders. Documentation of medical and mental health findings in 9/11 responders followed by timely dissemination of this information through the peer-reviewed medical literature are essential components of our work. Documentation of our findings enables us to examine trends and patterns of disease and to assess the efficacy of proposed treatments. Dissemination of our findings and our recommendations for diagnosis and treatment to physicians across the United States permits us to share our knowledge and to optimize medical care. Such documentation and dissemination would be well nigh impossible in the absence of federally funded Centers of Excellence.

In September 2006, the Centers of Excellence that comprise our consortium published a paper in the highly respected, peer-reviewed medical journal *Environmental Health Perspectives*, a journal published by the National Institutes of Health. This report detailed our medical findings from examinations of 9,442 WTC responders whom we and our partner institutions had assessed between July 2002 and April 2004. I have appended this report to my testimony for your review, and I would like to direct your attention to a few key findings:

- Among these 9,442 responders, 46.5% reported experiencing new or worsened lower respiratory symptoms during or after their work at Ground Zero; 62.5% reported new or worsened upper respiratory symptoms; and overall 68.8% reported new or worsened symptoms of either the lower and/or the upper respiratory tract.
- At the time of examination, up to 2 ° years after the start of the rescue and recovery effort, 59% of the responders whom we saw were still experiencing a new or worsened lower or upper respiratory symptom, a finding which suggests that these conditions may be chronic and that they will require ongoing treatment.
- One third of responders had abnormal pulmonary function test results. One particular breathing test abnormality—decreased forced vital capacity ? was found 5 times more frequently in WTC responders than in the general, non-smoking population of the United States.
- We found that the frequency and severity of respiratory symptoms was greatest in responders who had been trapped in the dust cloud on 9/11; that frequency and severity were next greatest in those who had been at Ground Zero in the first week after 9/11, but who had not been caught in the dust cloud; and that frequency and severity were lower yet in those who had arrived at Ground Zero after the first week. These findings fit well with our understanding of exposures at the site and thus lend internal credibility to our data.
- Findings from our program released in 2004 have attested to the fact that in addition to respiratory problems, there also exist significant mental health consequences among WTC responders.

External Corroboration of our Findings. The peer-reviewed article that we published one year ago in *Environmental Health Perspectives*¹ gains further credibility by virtue of the fact that the findings we report in it are consistent with findings on 9/11 responders that have been reported by highly credible medical investigators outside of our consortium. The FDNY has published extensively on the burden of respiratory disease among New York firefighters. They have seen a pattern of symptoms that closely resembles what we observed. Forty percent of FDNY firefighter responders had persistent lower respiratory symptoms, and 50% had persistent upper respiratory symptoms more than one year after 9/11. FDNY noted that rates of cough, upper respiratory irritation and gastroesophageal reflux were highest in those firefighters who had been most heavily exposed on 9/11. FDNY physicians have also noted reactive airways disease, and highly accelerated decline in lung function in firefighters as well as in other responders in the year following 9/11.

Our findings receive further corroboration from reports released recently by the New York City Department of Mental Health and Hygiene from the WTC Registry that the health department has established with support from CDC. These reports noted increased rates of asthma and of post-traumatic stress disorder.

Future Health Risks and Unanswered Questions. Two major unanswered questions confront us as we consider the future health outlook for the brave men and women who responded to 9/11:

1. Will the respiratory, gastrointestinal and mental health problems that we are currently observing in responders continue to persist? For how long? And with what degree of severity and associated disability? These questions are especially important in the case of those responders who sustained very heavy exposures in the dust cloud on 9/11, in those who served in the first days after 9/11 when exposures were most intense, and in those who had prolonged exposures in the weeks and months after 9/11?
2. Will new health problems emerge in future years in responders as a consequence of their exposures to the uniquely complex mix of chemical compounds that contaminated the air, soil and dust of New York City in the aftermath of 9/11? Responders were exposed to carcinogens, neurotoxins, and chemicals toxic to the respiratory tract in concentrations and in combinations that never before have been encountered. The long-term consequences of these unique exposures are not yet known.

Concluding Comments. Six years following the attacks on the World Trade Center, thousands of the brave men and women who stood up for America and who worked on rescue, recovery, and clean up at Ground Zero are still suffering. Respiratory illness, psychological distress and financial devastation have become a new way of life for many.

¹See Environmental Health Perspectives *The World Trade Center Disaster and the Health of Workers: Five-Year Assessment of a Unique Medical Screening Program* Volume 113/Number 12/December 2006

The future health outlook for these responders is uncertain. The possibility is real that illnesses will persist, at least in some, and that new conditions—diseases marked by long latency—will emerge in others.

Only continuing, federally supported medical follow-up of the 9/11 responders through Centers of Excellence that are equipped to comprehensively evaluate responders, to document their medical findings, and to provide compassionate state-of-the-art treatment will resolve these unanswered questions.

Thank you. I shall be pleased to take your questions.

Chairman THOMPSON. Thank you very much. I am sure you can expect some questions based on your testimony once we have completed.

Chief Visconti, please.

**STATEMENT OF DEPUTY CHIEF NICHOLAS VISCONTI,
INTERNATIONAL ASSOCIATION OF FIREFIGHTERS**

Deputy Chief Visconti. I thank you, Chairman Thompson and distinguished members of the committee for the opportunity to testify before you today.

My name is Nick Visconti, and I serve as the Deputy Chief of the New York City Fire Department. I am pleased to appear before you today on behalf of the International Association of Firefighters and the more than quarter million full-time emergency response personnel who comprise our organization.

Like virtually every other member of the FDNY, I responded to the World Trade Center on September 11, 2001. Initially, it was my job to establish a staging area for first responders at Shea Stadium. Having nothing on hand, we borrowed supplies that we could from the NYPD detail at the stadium.

As hundreds of firefighters began assembling at the stadium, we recorded their names and then dispatched them to the World Trade Center on buses provided by the Department.

I assigned other officers to my duties, and I made my way to Ground Zero. I arrived shortly after the second tower fell. The scene was pure chaos. Everywhere I turned I saw firefighters with debris, our radios were screeching with urgent calls and May Days, an operations command post had not been set up, and I was immediately assigned to find and rescue the men of Ladder Company 6. The men of Ladder Company 6, including one of my best friends, had been on the fourth floor of Tower 2 when it collapsed.

I pulled together people I knew personally, and we began the search. Somehow, I was able to quiet the chatter on the radio long enough to contact the missing company, and amazingly, I received an answer.

Thinking they had only experienced a localized stairwell collapse, and not realizing that the entire building had crumbled down upon them, the captain asked that someone respond to a May Day that had been received from firefighters on the 12 floor. I couldn't bring myself to tell them that there was no longer a 12th floor.

As we conducted a futile search for the stairwell, which no longer existed, the men of Ladder 6, who were miraculously able to dig themselves out of rubble, I can only imagine what they felt when they realized the full extent of what had happened. That was first and last miracle I experienced that day.

As we continued to search for victims and survivors, a firefighter, who is just off to my side, spotted some well-shined shoes in the

debris. This discovery led to the removal of the body of the Chief of the department, Peter Ganci. Almost at the same time, the search for another pile of debris uncovered the body of William Feehan, the First Deputy Fire Commissioner. Two of the highest members of the fire department were found no more than 25 feet apart.

For the rest of the day and into the night, my team and I searched for victims, hindered by the chaos and the complete lack of unit integrity. We had nothing to work with. We had no water, no trucks, no stretchers or body bags in which to place the victims we expected to find.

We also expected to find survivors. Sadly, there were none. Only on the following day was a woman rescued from what was left of the north tower, and, to the best of my knowledge, she was the last.

At about 11:00, I took my first break. I found the phone to call my wife and family to tell them that I was okay. Then I went back to the pile. For 3 days I did little else, occasionally catching a couple of hours of sleep at a firehouse before returning.

On that day we lost 343 brother firefighters. As hard as it is to acknowledge, I know that illness and disease from hazardous exposures to Ground Zero will take yet more from us. It is from the perspective of one man who responded to that awful day that I wish to address the health and safety risks faced by first responders during major disasters.

On September 11, there was nothing we could have done to have saved the towers from falling, but we could have and should have saved 121 firefighters who couldn't hear evacuation orders because their radios weren't working.

We could have and should have provided responders with proper respiratory gear. We could have and should have an operated under a unified command system that effectively used well-trained and well-prepared emergency response professionals.

The failure of the New York Fire Department to provide its firefighters with radios that worked in that environment is the greatest. The study of the FDNY response to the 1993 World Trade Center bombing included several recommendations, but none more important than replacing the antiquated radios we were using.

Eight years later, we were using the exact same radios. Four years later our responders and the citizens of the gulf coast suffered many of the same problems during the response to the Katrina. There is, unfortunately, no quick fix. If Congress wishes national safety to be a national priority, it will require a concerted, long-term effort to ensure responders health and safety before, during and after a disaster.

The best way to ensure responders' health and safety during a disaster is to ensure that they have the right personnel, tools and training they need before the response even begins.

Unfortunately, far too many fire departments lack sufficient personnel to perform their duties safely, and far too many firefighters lack the training, equipment and preparation they need to safely participate in large-scale response. The Federal Government must provide both financial and programmatic support to address these shortcomings. Grant programs that provide resources to our fire de-

partments must be fully funded. Research to improve personal protective gear and equipment, such as the work currently under way at the NIOSH lab must be expanded, and we must assure that the communications failures we witness on September 11 and during Katrina never happen again.

The Federal Government also has an important role to play in assuring the health and safety of responders during the response. The National Incident Management System reflects a fundamental understanding by establishing a common framework to enable all government private sector and nongovernmental organizations to work together during disasters. In order for NIMS to work effectively, all firefighters must have certain minimum levels of training and capabilities. Just because someone calls himself a firefighter does not mean he or she is capable of doing what a firefighter should be able to do.

In New York, we already have mandated minimum standards for mutual aid responses, and we believe this concept should be implemented nationwide. We therefore urge prompt and full implementation of the NIMS Integration Center National Credentialing System.

Lastly, we must insure that on scene emergency commanders have the training and that they comply with standard operating procedures. There is no excuse for firefighters to operate in an unsafe manner when we know how to keep them safe. Every firefighter knows that the work of first responders does not end when the fire is out.

Recovery after the fact is just as important as preparation and response. This is especially true in major disasters such as 9/11 and Katrina where the health needs of responders continue to be far beyond the initial response and illustrate the importance of management of disasters' aftermath. Medical monitoring and treatment programs addressing both the physical and mental health needs of the responders must be implemented following any large-scale event.

In conclusion, I want to thank you for the opportunity to share a firefighter's perspective on protecting the health and safety of individuals who respond to major disasters. The issues and recommendations outlined in my testimony today only skim the surface of the matter at hand.

Ensuring the health and safety of our first responders will require a comprehensive, long-term effort to align our Nation's policies and priorities with this goal.

I want to thank the chairman once again and the committee for its attention. I would be happy to answer any questions.

[The statement of Mr. Visconti follows:]

PREPARED STATEMENT OF NICHOLAS VISCONTI

Thank you Chairman Thompson, Ranking Member King, and distinguished members of the Committee for the opportunity to testify before you today. My name is Nick Visconti, and I currently serve as Deputy Chief of the New York City Fire Department. I am pleased to appear before you today on behalf of the International Association of Fire Fighters (IAFF) and the more than quarter million full-time emergency response personnel who comprise our organization.

Whenever and wherever disaster strikes, America's professional fire fighters and emergency medical personnel are on the front lines working tirelessly and heroically to save lives and protect the public safety. As we have witnessed, whether respond-

ing to a bomb in Oklahoma City, an earthquake in San Francisco, massive flooding in the Gulf Coast or terrorist attacks on the World Trade Center, the men and women of the IAFF are the first to arrive on the scene and the last to leave.

Like virtually every other member of the New York City Fire Department, I responded to the World Trade Center on September 11, 2001. Although I was not scheduled to be on-duty that day, when the planes hit, every New York City fire fighter was mobilized. Initially, it was my job to establish a staging area for first responders at Shea Stadium. When I arrived, we had no equipment or material to set up a staging area. We rushed to collect needed supplies, record the names and units of the Fire Officers and fire fighters who responded, and began to delegate responsibilities. Having nothing on hand, we borrowed what we could from the NYPD detail at the stadium. As hundreds of fire fighters began assembling at the stadium and after five bus loads were dispatched to the World Trade Center, I assigned my duties to a Battalion Chief and made my way to Ground Zero.

I arrived somewhere around thirty minutes after the second Tower fell. The scene was pure chaos. Everywhere I turned, I saw fire fighters covered with debris. Our radios were screeching with urgent calls and "May-Days." An Operations Command Post had been set up, and I was immediately assigned to find the members of Ladder 6. The men of Ladder 6, including one of my best friends, had been on the fourth floor of Tower Two when it collapsed.

We began to assemble our own search and rescue teams. At that time there were no "units" available. There were only groups of Fire Officers and fire fighters from different units and different areas of the City. I pulled together people I knew personally—people I knew how to work with—and began my search. Somehow, I was able to quiet the chatter on the radio long enough to contact the missing company—amazingly—I received an answer. They didn't know the entire building had crumbled around them. Thinking that they had only experienced a localized stairwell collapse, they asked that someone respond to a mayday they had received from fire fighters on the twelfth floor. I couldn't bring myself to tell them that there was no twelfth floor—there was only the mound that was once the North Tower. As we conducted a futile search for a stairwell which no longer existed, the men of Ladder 6 were miraculously able to dig themselves out from the rubble. I can only imagine what they felt when they realized what had happened.

That was the first and last miracle I experienced that day.

During this time fire officers were establishing command posts around the perimeter of the pile, but it was difficult to keep track of all personnel on scene. I must repeat that there was little to no unit integrity. The mainstay of Fire Department operations is organization. People know who is in command; they know their immediate supervisor and they know their role in the work at hand. Fire Department radio communications, despite the fact that the Towers had collapsed, were intermittent and jammed with individual messages. Furthermore, we lacked even the most basic of necessities. There was no water. There was no hose, there were no trucks. There were no stretchers or body bags in which to place the bodies we expected to find. We also expected to find survivors. Sadly, there were none. Only on the following day was a woman rescued from what was left of the North Tower. To the best of my knowledge she was the last.

I was assigned to set up an operations post on the south side of the collapsed North Pedestrian Walkway. We accessed the collapse field through a window of a World Financial Center building. The first priority was to organize the group and the others flowing into the debris field. Everyone was trying to do something; to accomplish anything we had to work together. As my group and I made our way around our assigned area, I looked down and found myself walking on the roof of a fire engine. When we searched the remains of that Engine we found the bodies of two members of the FDNY. A short time later, as the group that I commanded searched the debris field, a fire fighter, who was just off to my side, yelled out that he had spotted some well-shined shoes in the debris. This discovery led to the removal of the body of Chief of Department Peter Ganci. Almost at the same time the search of another pile of debris uncovered the body of William Feehan, the First Deputy Fire Commissioner. The two highest ranking members of the Fire Department were found no more than twenty-five feet apart.

And so it went for the next several hours: digging through debris, trying to bring some order to unimaginable chaos, finding the bodies of not only our friends, our brothers, but also the civilian victims of the attack. I'd like to add that when a body was discovered and removed, it was done with the utmost respect and care, regardless of the identity or affiliation of the individual. At no time were we only seeking our Brothers; we wanted to find each and every victim.

At about 4:30 PM the Operations Chief notified all Sector Commanders to evacuate the entire area of the debris field. The Chief had enough evidence to suspect

that WTC 7 would collapse. Under normal circumstances, an evacuation order would have been transmitted over the handheld radios that are carried by officers and fire fighters. At this horrific landscape, successful radio communications were intermittent, most fire personnel did not have radios, we had no radio communication with other agencies that were working in the debris field, and there were many construction workers and others with whom we had no communications at all. To evacuate the area as rapidly as possible, the order to evacuate was transmitted repeatedly; Fire Department members were ordered to evacuate and to notify anyone with whom they had contact to leave the area. It was necessary to send individual "runners" to groups of people working throughout the area who did not receive the order. WTC 7 collapsed around 5:30 PM without further injury or death.

At 11:00 PM I took my first break of the day. I found a phone and called my wife and family to tell them that I was OK. Then I went back to the pile. For three days, I did little else, occasionally catching a couple of hours of sleep at a firehouse before returning to the nightmare of that pile.

On that darkest day, we lost 343 brother fire fighters. And as hard as it is to acknowledge, I know that illness and disease from hazardous exposures at Ground Zero will take yet more from us.

It is from this perspective, the perspective of one man who responded on that awful day, that I wish to address the health and safety risks faced by first responders during major disasters.

The terrorist attacks of September 11 and the devastation wrought by Hurricane Katrina fundamentally changed the way our nation views emergency response. Prior to these seminal events, public safety was viewed almost exclusively as a local government function. No more. Americans now fully understand that homeland security is a vital federal government responsibility, and Congress has rightly acted to improve the manner by which our nation responds to major disasters. But while the federal government has focused on how to better protect our nation's communities, citizens, and property, we have yet to focus on how to better protect the individuals who respond to major disasters in any comprehensive way.

The fact of the matter is that, in today's post-9/11 world, local first responders play the most significant role in the federal response to large-scale disasters. As the federal government continues to ask more of its first responders, we owe it to them to ensure that our nation's policies and priorities enable their safe and effective response.

The Response to the World Trade Center and Hurricane Katrina: Lessons Learned

On September 11, there was nothing we could have done to have saved the Towers from falling, or to have saved the lives of those on the Towers' highest floors. But we could have, and we should have, saved 121 fire fighters who couldn't hear evacuation orders because their radios weren't working. We could have, and should have, lessened the health impact on responders by providing them with proper respirators and protective gear from day one. We could have, and should have, operated under a unified command system staffed by well-trained and well-prepared emergency response professionals.

The tragic reality is that these failures were avoidable. Workers were allowed on the pile without respirators, even though the air had not yet been determined safe to breathe. The City's command center, whose staff had never prepared for a high-rise fire, much less a major incident at the World Trade Center, collapsed at 7 World Trade Center, while fire fighters struggled to keep order on the ground.

Perhaps most egregious was the failure of the New York Fire Department to provide its fire fighters with radios that worked in that environment. The exhaustive study of the FDNY response to the 1993 World Trade Center bombing included several recommendations, but none more important than replacing the antiquated radios we were using. Yet, eight years later we were using the exact same radios.

Following the cataclysmic events of 9/11, our nation rightly decided it needed a better way to respond to major disasters. Congress and the Administration moved quickly and forcefully to develop new systems so that we would be better prepared for the next disaster. We created the Department of Homeland Security, the largest reorganization of the federal government in half a century. The President of the United States issued a series of Directives that were meant to change not only procedures, but the way in which we thought about emergency response, leading to the creation of the National Incident Management System (NIMS) and the National Response Plan (NRP). Money flowed to establish interoperable communications systems.

Yet, four years, billions of dollars, and countless man-hours later, our nation's new preparedness and response system failed the citizens of the Gulf Coast, and our

responders, yet again. The response to Hurricane Katrina was plagued by the delayed deployment of people and resources, a lack of basic supplies, and a failed communications system.

There is, unfortunately, no quick fix to safeguard those who put their lives on the line to protect the public. If Congress wishes first responder safety to be a national priority, it will require a concerted, long-term effort to ensure responders' health and safety before, during, and after a disaster.

Before a Disaster: Preparation

The very best way to ensure responders' health and safety during a disaster is to ensure you have the right personnel, tools, and training you need before the response even begins. Every Boy Scout knows the mantra "Be Prepared." Yet, far too often, we as a nation forget that simple lesson from our childhood. Unfortunately, far too many fire fighters today lack the training, equipment and preparation they need to safely participate in a large-scale response.

The single most effective thing the federal government can do to protect fire fighter safety is assure that every fire department in the nation has a sufficient number of adequately trained and equipped fire fighters. Currently, two-thirds of all fire departments are understaffed and operating below safe minimum staffing guidelines issued by the National Fire Protection Association (NFPA). The results are tragic and harrowing.

Since 1998, the National Institute for Occupational Safety and Health (NIOSH) has investigated every fire fighter line of duty fatality. From January 1, 1998 through 2005, there were 174 fatalities from trauma, such as burns, crushing, falls and inhalation of toxic gases, at a fire scene. In almost all of these incidents, NIOSH found a lack of incident command, accountability, and most importantly, staffing as a primary cause of these line of duty deaths.

That said, having sufficient personnel on the ground would make little difference if they are not properly equipped or properly trained for the job at hand. New resources must be dedicated to develop and test new protective gear and equipment. Currently, NIOSH's National Personal Protective Technology Laboratory is developing new technologies to better protect fire fighters from all hazards, including a terrorist attack using deadly chemicals or biological agents.

Based on the innovations that emerged from NIOSH's lab and other research centers, all fire fighter respirators now protect fire fighters against chemical, biological, radiological and nuclear (CBRN) agents. And NIOSH is continuing its efforts to improve turnout gear and other personal protective gear to protect fire fighters against the dangers of the 21st Century.

Training levels must also ensure fire fighters are able to function in even the most hazardous scenarios. NFPA has recently revised its standard for hazmat training to fully incorporate response to weapons of mass destruction. We believe it should be a minimal requirement for all fire fighters to receive this hazmat/WMD training as a matter of course.

As the failures on September 11 and during the response to Katrina illustrate, emergency communications challenges during major disasters continue to endanger first responders. However, despite the common belief that communications issues on 9/11 and on the Gulf Coast were failures of interoperability, they were, in actuality, failures of basic operability. The fact of the matter is that, before emergency response departments can grapple with the issue of interoperability, they must ensure that basic communications needs are fulfilled. Too many emergency departments lack effective and reliable communications equipment. Additionally, in a major disaster basic communications systems may be destroyed.

Once departments overcome any weaknesses in their own internal communications systems, they may then face additional technical and operational challenges in achieving interoperability. Equipment purchases alone will not ensure interoperable communications. Communities must also ensure appropriate planning, design, exercises, modeling and training.

The Office of Management and Budget conservatively estimates that \$15 billion is needed to address communications interoperability issues in the United States. Billions more will also be needed to assist local emergency response agencies meet their own communications needs. Congress should take steps to provide additional funds for emergency responder operability and interoperability needs as expeditiously as possible, and ensure that interoperability grants are made available for a wide variety of activities.

Equally as important as ensuring that personnel have proper equipment and training is ensuring that such personnel are physically fit to carry out their duties. To this end, all fire fighters should be required to undergo an annual physical evaluation to identify and address any health issues a responder might have. Further-

more, fitness facilities should be made readily available, and incentives should be provided for fire fighters to undertake regular fitness programs.

The IAFF has made achieving and maintaining fire fighter wellness and fitness one of its top priorities. Working in conjunction with the International Association of Fire Chiefs, the IAFF has developed a Wellness-Fitness Initiative designed to help maintain fire fighters' physical and mental capabilities throughout their careers. One way to better protect fire fighters in responding to major disasters would be to implement this initiative in every fire department in America.

During a Disaster: On-the-Scene

The federal government also has an important role to play in assuring the health and safety of responders during an actual response. As I mentioned previously, the mainstay of fire department operations is organization. The National Incident Management System (NIMS) reflects this fundamental understanding by establishing a common framework to enable all government, private-sector, and nongovernmental organizations to work together during disasters. By establishing a common language, a unified approach, and standard command structures, NIMS enables first responders and those with whom they work to operate more efficiently, and thus, more safely. As the federal government continues to update and refine NIMS, it must ensure continued compliance with its principles among all levels of government, and proactively provide continuing educational opportunities to first responders and government officials to achieve such compliance.

Additionally, the safety of responders and citizens during a major disaster, as well as mission effectiveness, can be greatly increased by the efficient and appropriate management of response personnel. Although their impact on disaster response has always been overwhelmingly positive, the arrival of fire fighters on the scene has often been chaotic and less than 100% effective. There are several reasons for this.

First and foremost, too many well-meaning fire fighters self-dispatch rather than waiting to be officially mobilized. Second, the qualifications of fire fighters currently vary across and within departments. Just because someone calls himself a fire fighter does not mean he is capable of doing what a fire fighter should be able to do. Current difficulties tracking on-scene personnel and their capabilities prevents on-scene commanders from making the best use of their most valuable resources. This was certainly my experience on 9/11.

The NIMS Integration Center (NIC) within the Department of Homeland Security is currently developing a national credentialing system to help verify the identity and qualifications of emergency personnel responding to a major disaster. The System, requiring minimum national qualifications for specific emergency response functions, will help on-scene commanders identify who is on-scene and make the best possible use of their capabilities. Had such a system been in place on 9/11, the issues we experienced tracking and utilizing personnel may have been avoided. Congress should do all it can to ensure that States and localities only credential personnel who fully comply with the minimum national standards established by the NIC, and that the National Credentialing System is quickly and thoroughly implemented.

Lastly, we must ensure that on-scene commanders fully comply with standard operating procedures. Unfortunately, far too often, fire fighter deaths and injuries result not from failures of equipment or unexpected dangers, but from a failure to comply with widely accepted rules and procedures for operating safely. This is completely unacceptable; there is no excuse for fire fighters to operate in an unsafe manner when we know how to keep them safe on-scene.

After a Disaster: Follow-Up and Follow-Through

Every fire fighter knows that the work of first responders does not end when the fire is out. Recovery after the fact is just as important as preparation and response. This is especially true in major disasters such as 9/11 and Katrina. In these two cases, the health needs of responders, in particular, have continued far beyond the initial response and provided an illustration of the importance of managing a disaster's aftermath.

Because any major disaster is bound to pose significant physical dangers and mental health challenges, the establishment of a comprehensive health monitoring program is essential. Following the 9/11 response, the New York Fire Department established a medical monitoring program to identify and treat any new health problems in responders. The situation facing responders and their physicians was extremely serious. The Ground Zero dust cloud was the largest acute exposure to high-volume particulate matter in a modern urban environment—ever. Within the first week following 9/11, the FDNY found that 99% of exposed New York City fire fighters reported at least one new respiratory symptom while working at Ground Zero. Fortunately, FDNY's annual physical requirement established a baseline med-

ical picture from which monitoring physicians could judge a fire fighter's relative health.

The Department also provided mental health treatment through its Counseling Service Unit, providing treatment for post traumatic stress disorder, substance abuse counseling and grief counseling. Due in large part to the program, FDNY experienced only one post-9/11 suicide.

There is no doubt in my mind that hundreds of additional fire fighters would have experienced serious physical and mental health issues were it not for the FDNY programs. Their success makes them an excellent model for comprehensive physical and mental health monitoring programs established in the wake of future disasters.

We must also ensure that lessons learned from future response efforts are retained and applied in preparation for the next catastrophe. The 9/11 Commission report and the Katrina report enabled organizations and persons at all levels of society to identify and remedy broken response components and missed opportunities. In response to these reports, Congress, for example, established the Department of Homeland Security, provided homeland security funding to the states and passed a comprehensive FEMA reform bill. After-action reports such as these should be de rigueur for any major disaster so that lessons learned can be incorporated into our future training, exercises, and response plans.

Lastly, it should go without saying that when the public safety department of a community is completely devastated by a disaster, the federal government should step up to the plate and help that community rebuild that department. On 9/11, FDNY lost 343 fire fighters, and 100 pieces of apparatus—equivalent to losing an entire fire department the size of San Diego. Similarly, when Katrina hit the Gulf Coast, New Orleans lost two-thirds of their fire stations, while the St. Bernard Parish Fire Department lost five of six stations. When a community takes such a devastating blow, the federal government must intervene to protect the safety of the homeland as well as its citizens. And it should do so without adding the burden of dealing with red tape and bureaucracy on a community already facing an overwhelming burden.

Progress Made: Recent Congressional Action

While there is still much work to be done to align our nation's policies and priorities with the goal of protecting the protectors, I am encouraged by the spotlight this Committee and the Congress has shone on the issue as of late. I would be remiss if I did not mention a number of recent reforms instituted by the Congress which I believe will help better ensure the health and safety of fire fighters and others who respond to future disasters.

One of the most important recent reforms implemented by the Congress was the enactment of the Emergency Management Reform Act of 2007, popularly known as the FEMA reform bill. The leadership of this Committee was early to recognize many of the problems facing FEMA, and actively engaged the IAFF as you crafted your bill, which we were proud to support.

Many of the provisions included in the FEMA reform bill will significantly contribute to assuring the health and safety of responders in an emergency. By reuniting emergency preparedness with emergency response under FEMA, the bill will help ensure that tomorrow's emergency response efforts are in sync with today's preparedness efforts. Authorizing the National Integration Center to promote compliance with the National Incident Management System (NIMS) and the National Response Framework (NRF) will help assure that responders are operating under common procedures. And involving first responder organizations through the National Advisory Council will ensure that the plans made by governmental officials make real-world sense to those who must carry them out.

Congress has also consistently supported grant programs to ensure that fire departments nationwide are safely staffed by properly equipped and trained personnel. This year, the House of Representatives has provided \$235 million for the SAFER grant program as well as \$570 million for the FIRE grant programs. Although these funds will provide a down-payment on fire fighter safety, I urge the Congress to fully fund these vital and life-saving grant programs so that they may achieve their full potential.

I am also appreciative of legislation passed by the Congress and signed into law authorizing the President to establish medical monitoring programs following disasters. We at FDNY benefited from a truly comprehensive monitoring and treatment program that, I have no doubt, saved countless lives. Likewise, future monitoring programs will permit the treatment of potential diseases and other health conditions in responders that might not otherwise be detected.

I am also pleased that Congress has made significant strides to improve emergency communications during disasters. By doubling the current spectrum available

to public safety and establishing two new grant programs to help public safety agencies achieve interoperability as well as basic communications operability, you have made great strides towards ensuring that the communications failures of 9/11 and Katrina are not repeated.

Furthermore, provisions in the recently enacted *9/11 Commission Act* help ensure that federal homeland security assistance be distributed to state and local governments based on risk and vulnerability. A key recommendation of the 9/11 Commission, this reform will help ensure that the lion's share of resources are used to provide equipment and training to protect those responders at highest risk for disaster, whether natural or man-made.

Conclusion

On behalf of myself and the IAFF, I appreciate the opportunity to offer our perspective on protecting the health and safety of individuals who respond to major disasters. But the reality is that the issues and recommendations outlined in my testimony today only manage to skim the surface of the matter at hand. Ensuring the health and safety of our first responders will require the dogged will of legislators, such as yourselves, to undertake a comprehensive, long-term effort to align our nation's policies and priorities with this goal. We look forward to working and partnering with your committee to this end, so that we may better safeguard our first responders as they put their lives on the line every day to protect our communities and their citizens from emergency situations both large and small.

Again, I would like to thank the Committee for its attention and I would be happy to answer any questions you may have.

Ms. CLARKE. [Presiding] Thank you for your testimony.

I now recognize Dr. Mike McDaniel to summarize his statement for 5 minutes.

STATEMENT OF MIKE MCDANIEL, SECRETARY, LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Mr. MCDANIEL. Thank you, Representative Clark, the committee members.

I am Mike McDaniel of the Louisiana Department of Environmental Quality.

My testimony will address DQ's response to Hurricanes Katrina and Rita. LDEQ's responsibility under Louisiana's emergency operating plan are limited primarily to environmental support function 10, and that is oil spill, hazardous materials and radiation.

However, as detailed in my written testimony, the Department conducted many activities that yielded critical information to assist and protect first responders. This information was provided through the unified command center. These activities included search and rescue, reconnaissance, damage and environmental threats assessment, environmental sampling and assessment and hazardous radioactive materials management.

In the area of search and rescue, teaming with the Louisiana Sheriff's Association, the LDEQ employees aided in the rescue of approximately 480 people from the area impacted by Hurricane Katrina.

In the area of reconnaissance damage and environmental threats assessment, our immediate concerns relevant to responders included industrial sites, oil spills, waste water treatment plants, rail cars, barges, radioactive material locations, drinking water sources and intakes, underground storage tanks, ruptured pipelines, Superfund tanks and then access routes and photo documentation.

Air reconnaissance was used to provide an initial evaluation of status of these sites of concern. In addition to high resolution aerial photography and satellite imagery, also utilized were the EPA ASPECT aircraft, the Department of Energy's airborne radiation de-

tectors, the EPA's mobile air monitoring units and a helicopter-mounted HAWK camera.

The EPA ASPECT aircraft has capabilities for air quality and radiation monitoring, as well as aerial photography. The HAWK camera is an infrared gas-imaging technology that captures images of volatile gases that are visible to the naked eye. This information obtained during these assessments was shared with the unified command center, including assisting first responders.

In addition, hazards such as oil spills, gas releases were photo documented, and potential access routes were evaluated to assist first responders and for followup ground assessments. As facilities and sites became assessable, ground assessments were made of all potential sources and all potential releases of hazardous materials.

Drinking water sources were evaluated for contamination, and operational status of water and waste water treatment plants were determined. In many cases, multiple visits were made to sites in order to ascertain that potential hazards had been secured. For example, 383 visits were made to 258 radiation source licensees in order to verify that all radiation sources had been secured.

In the area of environmental sampling and assessment, with EPA and other partners, thousands of environmental samples were collected, including floodwaters, waters of Lake Pontchartrain, adjacent coastal areas in the Mississippi River, sediment and soils, seafood and air quality. These efforts are detailed in our written testimony.

In all over 1 million individual analyses were performed, and data and health risk assessments were presented to the public and LDEQ and EPA Web sites, through press releases, press conferences, presentations, media interviews and calls to live radio.

Effectively communicating the environmental sampling results to first responders and the public was recognized as critical, and great effort was extended in this area. The various means of communicating and environmental results to the first responders and the public, along with some examples, are described in our written testimony.

In the area of hazardous and radioactive materials management, with valuable assistance and resources provided by EPA, over 22.4 million pounds of hazardous material were collected and removed from waste streams for proper treatment and disposal. Over 1 million white goods such as refrigerators, 956,000 electronic goods and 250,000 small engines were collected and sent to be recycled.

Over 4 million orphan containers, many containing hazardous materials were collected and reprocessed for recycling disposal. Over 110 school laboratories were cleared of hazardous material. Our radiological response efforts included issues relating to the security of the State's nuclear facility and radioactive materials held by our licensees.

In the area of protecting our first responders, throughout our emergency response efforts, great care was taken to protect all first responders working from our unified command center. The LDEQ attended many briefings on a daily basis to share information from its assessments and other activities that was used to assist and protect first responders.

Specifically, environmental conditions, as well as health and safety procedures were discussed and briefings held every morning before our field crews left for their various responsibilities. An example of the types of communication and information provided to the responders are provided in our written testimony.

In closing, I would like to note that at the request of the Senate Committee on the Environment and Public Works, the LDEQ put together a report entitled Some Observations and Recommendations for those Planning for or Responding to Environmental Challenges presented by Major Disasters. This report addresses issues relevant to this hearing and can be found on LDEQ's Web site.

That concludes my statement. I would be happy to take any questions at this time.¹

¹All exhibits referenced in this written testimony may be found at www.deg.louisiana.gov.

**WRITTEN TESTIMONY OF DR. MIKE D. MCDANIEL
SECRETARY, LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SUBMITTED TO THE
U. S. HOUSE COMMITTEE ON HOMELAND SECURITY
HEARING ENTITLED
"PROTECTING THE PROTECTORS: 1ST RESPONDER HEALTH ISSUES IN THE
WAKE OF CATASTROPHIC EVENTS"
THURSDAY, SEPTEMBER 20, 2007
CANNON HOUSE OFFICE BUILDING ROOM 311
WASHINGTON, DC**

I. INTRODUCTION

The Louisiana Department of Environmental Quality (LDEQ) appears before the United States House Committee on Homeland Security to provide testimony regarding response actions taken in the aftermath of Hurricanes Katrina and Rita to protect public health, safety, and welfare, and the environment, with emphasis on measures taken to protect emergency responders and affected public.

The testimony below will briefly describe the devastation caused by these hurricanes and provide a summary of the response actions taken by the LDEQ working in coordination with its federal, state, and local government partners to protect the public health, safety, and welfare, and the environment.

All exhibits referenced in this written testimony may be found at www.deq.louisiana.gov.

II. BACKGROUND

A. Hurricane Katrina

On August 29, 2005, Hurricane Katrina struck the Louisiana gulf coast, causing widespread damage within 25 parishes. Hurricane Katrina has proven itself to be the largest and most costly disaster to date in American history.

B. Hurricane Rita

On September 23 and 24, 2005, Hurricane Rita struck Louisiana, causing widespread damage to an additional ten parishes in the southwest portion of the state, and in addition causing further damage within a number of the same parishes devastated by Hurricane Katrina, notably the City of New Orleans, and Jefferson, Plaquemines, St. Bernard, and St. Tammany Parishes.

C. Impacts

The devastation caused on the Louisiana-Mississippi Gulf Coast by Hurricanes Katrina and Rita in August and September of 2005 cannot be adequately described in words. Statistics are useful but do not convey the experience of living through the violence of the storms and then, for survivors, the revelations of the aftermath. Many people's feelings mirrored the devastation of the natural and manmade environment around them—an environment ravaged by wind and water. More than 1,400 Louisiana residents lost their lives due to Hurricane Katrina, its approach caused the first mandatory evacuation in New Orleans' history, and it caused 1.3 million persons to leave their homes in south Louisiana. More than 200,000 Louisiana residents are still displaced.

In addition to the wind and storm surge damages normally accompanying hurricanes, overtopping of levees and failures of floodwalls resulted in rapid and extensive flooding of metropolitan New Orleans. Floodwaters from the two hurricanes filled the low lying areas of the metro area to depths in excess of 12 feet, resulting in about 80 percent of New Orleans being submerged for almost a month. While the damage done by the floodwaters to surface structures was extensive, the weight and salinity of the floodwaters also caused considerable damage to the city's infrastructure, including hundreds of miles of underground utilities—electric, gas, water, sewer, drainage, cable, and phone lines.

Altogether, these storms combined to generate over 62 million cubic yards of debris. Given that an average dump truck can haul 40 cubic yards of debris, the cleanup of the storm debris will ultimately require more than 1.5 million truckloads.

D. Government Response to the Hurricanes

Preceding landfall of Hurricanes Katrina and Rita, Louisiana Governor Kathleen Babineaux Blanco issued declarations of emergency on August 26 and September 20, 2005, respectively, due to the imminent threat of high winds, torrential rain, flooding, damage to private and public property, and risk to the safety and security of the citizens of Louisiana. In the aftermath of each hurricane, the Governor extended the state of

emergency due to the extreme damage caused and the continuing disaster and emergency conditions in the affected areas.

The federal government responded similarly, with presidential and FEMA declarations of emergency. On August 29, 2005, in response to Hurricane Katrina, FEMA issued a Disaster Declaration covering south Louisiana. On September 21, 2005, the President of the United States declared that an emergency existed in Louisiana and authorized FEMA to mobilize and provide equipment and resources necessary to alleviate its impacts in response to Hurricane Rita.

E. LDEQ Emergency Response Activities

Consistent with the National Response Plan and the National Incident Management System, Louisiana's Office of Homeland Security and Emergency Preparedness (now the Governor's Office of Homeland Security and Emergency Preparedness) has a detailed Emergency Operations Plan. In this plan, LDEQ's responsibilities are contained primarily in Environmental Support Function 10 (ESF-10) – Oil Spill, Hazardous Materials and Radiation. LDEQ plays a support role in oil spills, but provides personnel and resources in the oversight of spill mitigation. LDEQ plays a support role in hazardous materials management. The Louisiana State Police has primary responsibility in this function during the emergency phase; however, LDEQ is responsible for the collection, removal, waste classification, transportation, and disposal of the hazardous disaster debris and wastes. LDEQ has primary responsibility for managing radiation issues.

LDEQ began assembling an Incident Management Team (IMT) at the LDEQ Headquarters immediately following Katrina's landfall. A Unified Command Center (UCC) was established to house and support the IMT. In addition to LDEQ, the UCC contained representatives from the United States Environmental Protection Agency (EPA), Texas Commission on Environmental Quality, US Army Corps of Engineers (Corps), US Coast Guard, National Oceanic and Atmospheric Agency, US Geological Survey (USGS), Louisiana Oil Spill Coordinators Office, Louisiana Department of Health and Hospitals (LDHH) and local governments. These representatives coordinated emergency response, hazard assessment, and environmental sampling and planning activities (**Exhibit 1**).

Even though LDEQ's responsibilities under Louisiana's Emergency Operations Plan are limited primarily to ESF-10, the Department conducted many activities as described below that yielded critical information to assist and protect first responders. This information was provided through the Unified Command Center.

- **Search and rescue** - Teaming with the Louisiana Sheriff's Association, LDEQ employees aided in the rescue of approximately 480 people from the area impacted by Hurricane Katrina.

- **Environmental threats assessment** – LDEQ and its partners utilized aerial reconnaissance to assess the damage caused by the storm. This included flyovers of industrial sites, oil spills, wastewater treatment plants, rail cars, barges, radioactive materials locations (**Exhibit 2**), drinking water sources and intakes, underground storage tanks, ruptured pipelines, superfund sites, access routes and photo documentation. Aerial photography was used to provide an initial evaluation of the status of industrial sites, water and wastewater treatment plants, rail cars, ships, barges, radioactive material locations, National Priority List (Superfund) sites, and known hazardous materials sites. In addition to high resolution aerial photography and satellite imagery, also utilized were the EPA ASPECT aircraft, the Department of Energy's airborne radiation detectors and a helicopter mounted infrared gas imaging HAWK camera. The HAWK was especially useful for identifying a propane leak at Conoco-Phillips, Inc., in Belle Chase near New Orleans (**Exhibit 3**). Hazards such as oil spills and gas releases were also photo documented and potential access routes were evaluated to assist first responders and for follow-up ground assessments. EPA used two of its Trace Atmospheric Gas Analyzer (TAGA) buses to sample the air quality in the New Orleans area on September 12, 2005. TAGA is a self-contained mobile laboratory capable of continuous, real-time sampling and analysis. It can detect chemicals in the low parts per billion levels of outdoor air or emissions from various environmental sources. The samples were analyzed for volatile priority pollutants such as benzene, toluene, and xylene, which are commonly found in gasoline, as well as other industrial solvents.
- **Accessibility** - As facilities and sites became accessible, ground assessments were made of all potential sources and known releases of hazardous materials. Drinking water sources were evaluated for contamination and the operational status of water and wastewater treatment plants were determined. In many cases multiple visits to sites were made in order to ascertain that potential hazards had been secured. For example, 383 visits were made to 258 radiation source licensees in order to verify that all of the radiation sources had been secured. To date, more than 6,000 damage assessments have been made.
- **Environmental Sampling and Assessment** – LDEQ, EPA and other partners collected thousands of environmental samples including floodwaters; waters of Lake Pontchartrain, adjacent coastal areas, and the Mississippi River; sediment and soils; seafood; and air quality. More than a million individual analyses were performed and data and health risk assessments presented to the public on EPA and LDEQ's websites, through press releases, press conferences, presentations, media interviews and radio call-in shows.
- **Hazardous Materials Management** – With valuable assistance and resources provided by EPA, more than 22.4 million of pounds of hazardous materials were

collected and removed from waste streams for proper treatment and disposal. More than a million white goods (refrigerator/freezers, ovens, washer/dryers, etc.) 956,000 electronic goods and 250,000 small engines were collected and sent to be recycled. More than 4 million orphan containers – many containing hazardous materials - were collected and processed for recycling or disposal. Over 110 school laboratories were cleared of hazardous materials.

The LDEQ also provided assistance in other assigned areas such as ESF-11, Agriculture, in the disposal of animal carcasses, and ESF-13, Public Safety and Security, by providing security for its own first responders during search and rescue activities. The LDEQ also incorporated the management and disposal of unwanted ammunition, firearms and explosives as part of the ESF-10 debris mission; these were not handled by law enforcement.

F. Emergency Response Activities – Health and Safety Plan (HASP) for Hurricane Katrina Response & Recovery

The HASP outlined the basic safety & health requirements for federal workers and contractors involved in response and recovery operations related to Hurricanes Katrina and Rita. HASP provides overarching requirements and sets a baseline for worker safety & health protection. Individual agencies and contractors were responsible for developing HASPs specific to their operation for the protection of their own employees (**Exhibit 4**).

HASP was developed using basic risk management principles to provide for the greatest level of protection for the greatest number of workers at risk. Specific operations or locations that contain actual or potential hazards not considered in the basic plan may require greater levels of protection. It was incumbent on each agency or contractor to have a competent person to conduct a job hazard analysis prior to commencing work.

HASP follows the basic principles outlined in the Occupational Safety and Health Administration's (OSHA) Safety & Health Program Management Voluntary Guidelines, which are as follows:

- Management commitment and employee involvement
- Worksite analysis
- Hazard prevention and control
- Safety & health training

HASP also addressed the tasks identified in the Worker Safety and Health Support Annex to the National Response Plan.

Because of the many hazards facing response and recovery workers in previously flooded areas, Interim Safety and Health Precautions (**Exhibit 5**) were distributed along with daily safety-grams (**Exhibit 6**).

G. Environmental Sampling Plan

It is important to recognize that the basic premise of both the National Response Plan and the National Incident Management System is that incidents are generally handled at the lowest jurisdictional level possible. However, when both local and state resources and capabilities are overwhelmed, states may request federal assistance. Given the circumstances following Hurricanes Katrina and Rita, LDEQ requested assistance from the EPA to help with several tasks related to management and disposition of hazardous materials and with environmental sampling and assessment.

EPA and LDEQ, along with other federal and state agencies, coordinated to gather environmental samples, analyzed these samples, interpreted the results, and communicated the results to the public. Much of the sampling done was specifically tailored to address the concerns of local governments and the public in the areas affected by the hurricanes, as follows:

- A comprehensive investigation addressed the soils and sediments of the parishes that flooded; samples were analyzed for over 200 metals and organic chemicals. The study concluded there was no cause to anticipate any adverse health impacts to individuals, including children.
- Non-scientific catch phrases such as "toxic soup" and "toxic gumbo" used to describe flood waters in the impacted area raised public concern. The LDEQ and EPA conducted extensive sampling and determined that while the waters were unsanitary, they were not toxic and presented no long-term health hazard. The agencies then issued a joint press release communicating to the public the analytical results and their conclusions.
- Fears about the safety of flood waters and Lake Pontchartrain led to fears about the safety of consuming seafood. Finfish and shellfish were sampled in Lake Pontchartrain, and in offshore and near shore gulf waters to confirm that seafood was safe to eat and no advisory against seafood consumption was warranted.
- Air sampling began immediately after Katrina and continued through November 13, 2005. Elevated concentrations of benzene were detected in the area affected by the release from Murphy Oil (Chalmette) shortly after Katrina; however, subsequent sampling showed results below screening levels. Particulate sampling (Orleans and St. Bernard parishes) and air toxics (Kenner) found concentrations well below any level that would raise health concerns.

H. Environmental Sampling - Results

1. Soil/Sediment

Beginning in September 2005, LDEQ and the EPA along with other federal and state partners conducted a comprehensive investigation to characterize any potential environmental effects to the parishes that were flooded by water from Lake Pontchartrain and the Mississippi River Gulf Outlet (MRGO). Since early September 2005, the agencies have collected approximately 2,000 sediment and soil samples in Jefferson, Orleans, Plaquemines, and St. Bernard parishes in four discrete phases. Samples were analyzed for more than 200 pollutants such as volatile organic compounds, semi-volatile organic compounds, total metals, pesticides and petroleum hydrocarbons. The overall chemistry of soils and sediments post-Katrina had changed little from pre-Katrina conditions and levels of contaminants were similar to other older urban centers around the country.

As each phase of sampling was completed, the results were compared to conservative health-based screening levels for residential exposure developed by EPA and LDEQ. On Dec. 9, 2005, summaries and general assessments of the data were developed by LDEQ and EPA, with input from the Centers for Disease Control (CDC), the Agency for Toxic Substances and Disease Registry (ATSDR), LDHH and FEMA (**Exhibit 7**).

The sample results indicate that the sediments left behind by the flooding from the hurricanes are not expected to cause any adverse health impacts to individuals, including children. A few localized areas were re-assessed due to elevated levels of arsenic, lead, benzo(a)pyrene, and diesel oil range organic petroleum chemicals. The results of these re-assessments indicated that: 1) the highest concentrations of arsenic were likely associated with herbicides used at or near golf courses; 2) benzo(a)pyrene was found in a 1-acre section of the Agriculture Street Landfill Superfund site and will be addressed as the Housing Authority of New Orleans finalizes plans for badly damaged town homes in the area; 3) diesel and oil range organic chemicals diminished over time and are now below residential levels; and 4) the elevated levels of lead detected in samples collected by EPA are not the result of the hurricane. The lead results obtained by EPA are comparable to the historical concentrations of lead in New Orleans soil found in studies conducted by local university researchers before the hurricanes.

2. Surface water

LDEQ worked with EPA, USGS, the Louisiana Department of Agriculture and Forestry (LDAF), and the Lake Pontchartrain Basin Foundation to monitor the quality of flood and surface waters in the Hurricane Katrina impact area. From September 2005 through March 2006, a total of 62,989 quality control and sample results have been produced, recorded and evaluated for Hurricane Katrina. This represents 497 sampling events

from 64 sites sampled. Results for organic compounds and metals were mostly non-detect.

Of the more than 40,000 results for organic compounds analyzed, only two exceeded non-drinking water human health criteria. Of the approximately 1,984 analytical results for metals, only 3 exceeded chronic aquatic life standards. Most impacts observed were a result of the hurricane and not a result of the pump down of floodwaters into Lake Pontchartrain. The quantity of floodwaters pumped from the New Orleans area into Lake Pontchartrain was estimated to be less than 5 percent of the lake's volume. The analytical data clearly shows that Lake Pontchartrain's water quality was largely unaffected by the pumping of floodwaters from New Orleans.

Overall, more than 6,200 water samples were analyzed for nearly 200 chemical constituents. It was determined that the floodwaters were unsanitary because of raw untreated sewage. However, there was no "toxic soup," a phrase that was inaccurately reported during the aftermath of Hurricane Katrina.

Total water samples

Katrina:	Floodwater	694 samples
	Lake Pontchartrain	3,452 samples
	Mississippi River Intakes	90 samples
	Groundwater samples	73 samples
	Remaining water samples	434 samples
Rita:	Water Samples	1,415 samples

3. Biota

Along with initial concerns about the health of Lake Pontchartrain came fears regarding the quality of the seafood found there. The results of sampling of flood waters and ambient Lake Pontchartrain waters helped mitigate these fears, revealing no chemicals above levels of concern. However, with added prudence, the LDEQ and the United States Food and Drug Administration (USFDA) embarked upon a five-week effort to sample and analyze tissues from commercially and recreationally important finfish and shellfish species. The USFDA laboratories analyzed 416 tissue samples for a wide variety of chemicals. The results confirmed that the seafood in Lake Pontchartrain is healthy and edible.

The analytical data showed that no advisory against seafood consumption was warranted. As an added precaution, fish and shellfish tissue will be sampled over the next few years to confirm the absence of chemical contamination in Lake Pontchartrain seafood. In addition, the EPA and NOAA Fisheries have conducted offshore and near shore fish and shellfish tissue sampling in the Gulf of Mexico and found no

contaminants at levels of concern. This is an important issue in the recovery of Louisiana, demonstrating and supporting the safety of the seafood, and therefore the viability of the seafood industry, as the seafood industry infrastructure (fishing vessels, docks, ice houses, processors, and restaurants) struggles to overcome the physical impacts of Hurricane Katrina.

4. Air

In order to evaluate air quality while pre-Katrina air monitoring stations were being re-established, LDEQ collected twenty-three grab air sample canisters in the Katrina affected area. All samples were analyzed for a total of 59 target volatile organic analytes. In addition, a Photochemical Assessment Monitoring Stations (PAMS) hydrocarbon analysis was performed to quantify total non-methane hydrocarbons and identify 56 common hydrocarbon species. The majority of the grab samples had reported volatile organic compound (VOC) concentrations at or slightly above normal ambient background levels. All of the detected VOC concentrations were well below the Louisiana ambient air standards and the ATSDR Minimal Risk Levels (MRL).

EPA conducted air sampling in New Orleans and the surrounding areas following Katrina. The EPA TAGA results indicated that there were elevated concentrations of benzene in the area affected by the release from Murphy Oil (Chalmette) shortly after the storm. Subsequent air sampling in this region indicates that benzene concentrations have decreased and are now below screening levels. Sampling in other areas indicated that the chemical concentrations present in the air were below ATSDR screening levels. EPA also collected several sets/rounds of total particulate samples in Orleans and St. Bernard parishes. This data indicates that the particulate concentrations were well below the level of health concern for Particulate Matter (PM 10).

In November 2005, LDEQ prepared a report on air toxics based upon data collected from the established Kenner air monitoring site. A total of 47 samples were collected and analyzed on the 24-hour sampler between September 11, 2005 and November 13, 2005. The most abundant compounds found in these samples were propane, ethane, acetone, isopentane, toluene and n-butane. All of these compounds were detected within the normal concentration range for an urban area. The general profile of compounds detected was very typical of an area dominated by mobile source emissions. The total hydrocarbon reading averaged 147 ppbC (parts per billion carbon) which is slightly below the normal range for an urban area. None of the average concentrations for any of the targeted VOCs were above the annual average Louisiana Ambient Air Standards, nor were any of the individual sample concentrations above the 8 hour ambient air standards.

Overall, more than 12,500 air samples were taken. All concentrations of the toxic air pollutants were below EPA's one-year screening levels and below the Louisiana toxic air pollutant standards.

I. Environmental Sampling - Reporting of results to the public

EPA worked with OSHA and the Department of Health and Human Services to disseminate health advisory information to field responders. These advisories provided guidance on the proper health and safety measures that should be taken to address any potential areas of concern (**Exhibit 8a**).

LDEQ and EPA worked in a joint effort, in the same office which was manned nearly 24 hours a day, to develop protocols and get information out as quickly as possible. Information on health risks was provided through press releases, media interviews, flyers and presentations to various groups shortly after Katrina made landfall, and before people were allowed to return to many areas of the devastated city.

On Sept. 2, a press release was sent out and media told about the sampling results of a smoke plume resulting from a fire at a warehouse (**Exhibit 8b**). Press releases were sent on Sept. 9 concerning possible fish kills and vegetative effects of Katrina (**Exhibit 8c**). On Sept. 9, the first household hazardous waste pickup site was announced in a press release (**Exhibit 8d**). On Sept. 9, the first press release to give details on floodwater sampling was released (**Exhibit 8e**). On Sept. 12 more floodwater data was released (**Exhibit 8f**) and was followed by air sampling results on Sept. 13 (**Exhibit 8g**) and sediment sampling results on Sept. 16 (**Exhibit 8h**).

Barely two weeks after the storm, before people were allowed to return to some areas, LDEQ and EPA had issued several press releases and given numerous media interviews on the sampling efforts and the effects of the storm to southeast Louisiana. People who stayed in the impacted area were warned not to drink the floodwater and to minimize contact with the unsanitary water. Also, people were told that proper hygiene was the best way to prevent any health issues that could be related to contact to floodwaters (**Exhibit 8i**).

On Sept. 15, EPA, LDEQ and other state and federal agencies made information available warning those who were returning to the area of the dangers of broken gas lines, mold, asbestos and household hazardous waste.

As for providing generic information for those returning to the area, on Sept. 16, with the help from the Department of Health and Hospitals, brochures were posted on the LDEQ web site and a press release sent to national media concerning mold, food and water and what people could expect and what they should do when they return to a flooded home/area.

As the record demonstrates, information was provided to the national media, posted on web sites, and more than 3.8 million flyers were distributed by EPA, LDEQ and many others to provide people with information they needed on a variety of topics. This information was being provided before people were allowed to return home.

J. Environmental Sampling - Results by Zip Code on Web Site

On February 15, 2006, LDEQ posted sediment sampling points and results from the New Orleans area on its Web site, www.deq.louisiana.gov. At that time, LDEQ and EPA jointly collected nearly 1,000 sediment samples following Hurricanes Katrina and Rita (**Exhibit 9a**). The maps and summaries of the results were made available by clicking a particular zip code (**Exhibit 9b**).

The zip code files contained three categories of information – a regional map, a zip-code map and a written environmental assessment summary of the zip code (**Exhibit 9 c & 9d**).

None of the sediment data showed any short-term health risks. EPA and LDEQ's goal throughout the sampling effort was to ensure that levels in residential areas meet residential standards. LDEQ developed these comprehensive maps and summaries to provide accurate environmental information to people returning to or visiting the New Orleans area.

K. Environmental Sampling – Bureau of National Affairs article touts joint sampling effort in Nov. 6, 2006 report

In the wake of Hurricane Katrina in August 2005, concerns over a potential "toxic gumbo" in New Orleans and concerns for public safety were paramount for state and federal agencies. These concerns were evidenced by the unprecedented nature of the investigation of residential floodwater sediment contamination. Looking at the EPA's residential sediment and soil sampling results, the article's authors attempted to place these results in the appropriate scientific context, to provide some preliminary suggestions concerning the lessons learned, and to examine policy issues that arose in this situation and that may arise in a future disaster. The authors believe the compressed risk management approach used by EPA may be useful in other large scale contamination events (**Exhibit 10**).

III. CONCLUSION

In closing, LDEQ would like to note that, at the request of the Senate Committee on Environment and Public works, LDEQ put together a report entitled, "Some Observations and Recommendations for Those Planning for and Responding to Environmental Challenges Presented by Major Disasters". This report (**Exhibit 11**) addresses issues relevant to this hearing and is a good source for lessons learned in responding to Hurricanes Katrina and Rita.

Ms. CLARKE. I thank all of the witnesses for their testimony. I will remind each member that he or she will have 5 minutes to question the panel.

I will now recognize myself for questions.

Let me start by just thanking Chief Visconti for coming and testifying today, for his service to our Nation, the State of New York, the City of New York, for the past 39 years. You must have started when you were about 8, right, chief?

Deputy Chief Visconti. Five.

Ms. CLARKE. Five. But you raised some very important questions, just based on your personal experience and through the wealth of knowledge that you have gained throughout your career as a fire-fighter and as a ranking member of the FDNY.

Chief Visconti, having interoperability with communications, proper staffing levels, solid leadership and proper personnel protective equipment are critical health and safety issues.

You stated in your testimony that you felt that we weren't, or the City of New York and Nation was not equipped on September 11.

Do you feel that the New York City fire department have all these things currently and what would you recommend to make sure that fire departments around this Nation are prepared for emergency events such as a terrorist attack or a natural disaster?

Deputy Chief Visconti. Well, I will begin with interoperability. I don't believe that the city is up and running yet with the interoper-

ability portion of communications. I know they are working very hard, and there is a center that is being created. They are spending a lot of man-hours and money into getting that up and running.

But the bedrock of communications, of any emergency scene, is that if each agency can talk to themselves. That was the problem at the World Trade Center.

At the World Trade Center, we couldn't communicate effectively with our own people. Even after the towers were down, and there was no line-of-sight problems, we could not talk to somebody 60 yards away when somebody 100 yards away could hear them from a different location. The communications were really terrible.

If we had been able to communicate with our people effectively, we could have probably lost fewer people in Tower 2. Tower 1 collapsed without anybody realizing that it was going to collapse. But Tower 2, when Chief Cowan gave the order to evacuate, the vast majority of people in that tower did not receive the message.

Going up one level, if the fire department had been aware that a police officer in a helicopter saw signs or suspected that Tower 1 was going to collapse, we certainly could have notified some people in Tower 1 and obviously in Tower 2. So that is an issue that starts at the bedrock of communications within your own agency, and then communicating with other agencies will definitely be of benefit to us.

Staffing, I really can't argue with the staffing of the New York City Fire Department. We have the best staffing in the entire country, from what I understand. We have also at a minimum, four firefighters on every engine and also a minimum of five firefighters on every ladder. That is excellent staffing.

The third issue that you mentioned?

Ms. CLARKE. Is personal protective equipment.

Deputy Chief Visconti. On September 11, I don't know where they came from, but ultimately we would see people walking around with filter masks. Now filter masks were inappropriate for that atmosphere. Everybody was talking around covered in dust. Firefighters, when they arrived at the scene, had the self-contained breathing apparatus, but that is a 1-hour bottle. You work with a face piece.

In that environment, especially after the air cleared, nobody was aware that they would need respiratory protection. But the first that I can recall, and it is a pretty hazy period of time, the best that I can recall is that about a week later, a concerted effort was made to provide everybody with HEPA masks, dual-canister respirators. Before that, it was disjointed. People would have filter masks, people would have other protection. Firefighters did not walk around after the collapses the next days with their masks on, because it didn't appear that we needed any.

Ms. CLARKE. Why didn't it appear so? Was there something that indicated was their message or, you know, we are all aware of what the EPA said, but what do you think precipitated that?

Deputy Chief Visconti. Well, I am not sure what precipitated that, but I know that after the collapses, and the dust cloud moved away, and all that was left was the smoking debris, that most people felt confident that they were breathing clean air.

It was only once the fire department actually established a second fire department just to deal with the World Trade Center, that every single individual down there was mandated to wear the HEPA dual-canister mask. If you didn't have it on, you were removed from the site. We had site safety people walking around making sure you had that respirator on. But that was not until sometime later.

Ms. CLARKE. The gentlelady from New York, Mrs. Lowey.

Mrs. LOWEY. I thank the distinguished Chair, a fellow New Yorker, and I am very pleased to welcome the panel, Dr. Landrigan, Chief Visconti, and the gentleman from Louisiana, who I haven't had the pleasure of meeting. Thank you very much for being with us today.

Since September 11, the issue of first responder health has been one of my top priorities. As someone who had hundreds of first responders from my district were the pilots, and really tragic seeing the health problems faced by many of our heroes.

While New Yorkers faced the biggest impact, the issue certainly goes beyond New York. The World Trade Center health registry has collected information from 71,400 out of the 410,000 individuals who were exposed to serious health hazards. Those exposed, many of whom are first responders, as we know too well, who worked the pile, came from every congressional district in the country.

For instance, 57 of the registry's participants are from the chairman's State of Mississippi, and we should keep in mind that the registry has only collected information of one-sixth of the total number of individuals who are likely exposed. So I encourage everyone who is here before and now to support the efforts that are being led by the New York delegation to ensure that everyone exposed to Ground Zero toxins is medically monitored and treated.

I have several questions, but, Chief, I just want to respond to something that you just said. No one was aware that they needed a mask.

Now, there has been a lot of discussion about this, from the mayor, from the former head of the EPA, if you could elaborate on that, you said about a week later?

Deputy Chief Visconti. Yes.

Mrs. LOWEY. The masks were delivered.

Deputy Chief Visconti. Yes to the best of my recollection. The first few days on the pile, seeing somebody with a filter mask on was not uncommon, but it wasn't widespread. I saw several people, firefighters, police officers and construction workers with the little filter masks on. Where they got them, how they got them, what made them think about getting them, I don't know.

But then it was later on, after that first week, that the HEPA masks were brought in. Now, initially, it was just handed it out, and then it was realized that they must be fitted. You had to have a fit test. Otherwise, you would do more damage by using the mask than not using it. So then they got into the program of you had to have one of those masks, you had to be fitted for it and you had to use it.

Mrs. LOWEY. After the first week.

Deputy Chief Visconti. I am guessing, I am going to say the first 4 days, I don't think anybody had the capability of realizing or capability of gathering enough respiratory protection to bring it into the site.

Mrs. LOWEY. Dr. Landrigan, nice to see you again. We know sustained Federal funding is critical to continue to provide monitoring and treatment to 9/11 workers who are ill, and I was pleased that the supplemental funding bill enacted earlier this year in the fiscal year 2008 House Labor-HHS appropriations bill, each contained \$50 million for health monitoring and treatment. As you know, many of us worked hard to get that.

Unfortunately, estimates for the 9/11 health problems would be as high as \$393 million per year. The Federal Government just has to be prepared to invest significantly more funds. The annual figure is substantially more than the \$227 million total figure that has gone to 9/11 health programs.

If funding was not an issue, Dr. Landrigan, how would you expand the program at Mount Sinai. How much would it cost to do this, and how does a lack of adequate funding impair your ability to provide the services and care that these individuals need?

Dr. LANDRIGAN. Thank you for that question, Mrs. Lowey, and thank you for being with us throughout this issue. There have been two issues about the funding that have been problematic. One is that it has been limited over the past 6 years, and the second is that the flow has been intermittent. There hasn't been the assurance from one year to the next that there would be funding, nor has there been any assurance as to the level of funding from one year to the next, which has made the planning very difficult, the space, personnel, and the rest of it.

If funding were not an issue, then we would continue to work in two areas, and we would expand both of them.

First of all, we would continue the aggressive monitoring that we are doing. We have now seen more than 22,000 of the responders who were down there, and our colleagues at FDNY have seen another about 15 or 16,000 or so between us. We have seen 36—or 37,000, but we know that there were somewhere between 40,000 and 90,000 responders down on the pile.

Therefore, we still have many tens of thousands that we haven't seen, and we would, if we had full funding, we would reach out even more aggressively than we are already reaching.

The second issue is treatment. Federal funding for treatment began only 1 year ago in September of 2006. Prior to that time, all of our treatment activities were funded solely by philanthropy, by local foundations, plus the American Red Cross. It is clear that we are only scratching the surface on treatment. There are lots of persistent respiratory diseases, I mentioned in my testimony, there are mental health problems, and there is the possibility, it is not a certainty, but there is the possibility that we will see additional disease in the year ahead, and some well locked-in funding for medical treatment that extended over the years would be a great source of security for the responders themselves, as well as for those of us who are providing their care.

Mrs. LOWEY. Thank you very much. Madam Chairman, do you want to ask a question, and then we can just go back and forth, since it is the two of us.

Ms. CLARKE. Very well.

Mrs. LOWEY. We have another guest.

Ms. CLARKE. We have Mr. Etheridge joining us from North Carolina. The gentleman from North Carolina has 5 minutes to ask his questions.

Mr. ETHERIDGE. Thank you, Madam Chairman. I apologize for having to duck out. I am involved in two hearings this morning, and both of them at the same time.

You probably heard me earlier raise the question with our previous panel about the number of firefighters who lose their lives of a heart attack or stroke.

But let me, Chief, ask you a question, if I may, and thank you for your service and all of you folks for what you are doing.

Prior to the 9/11 attack, the Fire Department of New York had systematically collected and updated, really had developed a baseline of medical data for all of your firemen, which had to have a significant impact on assisting the clinical ability to detect the subsequent health problems that came as a result of the World Trade Center.

My question is to what extent can professional responder groups, not just firefighters but all the responders that we with call, upon benefit from that? What would you share with this committee that we ought to be doing at the Federal level, if anything, as I raised the issue a while ago? What can we do.

Deputy Chief Visconti. In The New York Fire Department, there are physical standards to become a firefighter as in every other fire department. The New York City Fire Department has kept a record. I know I can do go down and find x-rays from when I was appointed to the Department in 1968. They keep their records.

They maintain a baseline on you. The Department, after 9/11, Dr. Kelly and Dr. Prezant, instituted a program of giving a World Trade Center physical to each and every member of the department. That data is now available for the yearly checkup that each firefighter or fire officer gets. They are able to determine if there are some changes going on. They are able to see whatever and what other illnesses are becoming apparent.

I don't think that in this day and age that any department or any agency should be without that capability. It is essential to have that so that in the future, in a situation like this, we have some place to start.

Mr. ETHERIDGE. Let me follow up with you, because just in conversation, I like to have, I realize the system is as large as New York, and maybe Washington alone, but I guess I want to probe it just a little farther because across the country we have a lot of first responders who are volunteers, probably, 70 or 80 percent I would have to check that, and I don't know how many of them do what you are talking about. Now, the probability is less, but I do know in a number of instances across, even in rural departments now, we have had firemen, by and large firemen, police officers too, for that matter.

Some EMS have responded to meth labs not recognizing houses on fire, they go in not recognizing what they have had, and all of a sudden you have a problem. I know of one situation where we had a volunteer who lost his life, did not know what it was till it was over.

I would be interested in your thoughts, and either of the medical officers, how we can encourage that, because I think there is a whole group of first responders out there, that we don't have that data on and are responding.

Deputy Chief Visconti. I don't know what the requirement would be. I don't know who would institute it. But in 2007, that would not be—that would be an excellent goal to achieve, that every member of that volunteer fire department has the training he needs to recognize hazards and to deal with hazards, but also to make sure they are able to physically able to do the job.

I don't see how you can get around that. If an entrance physical and a medical examination is required, and this doctor said this person is capable, you have right there and then as soon as they enter the department a baseline on the physical condition when they entered. As far as the training goes, it is absolutely essential to have the training.

Mr. ETHERIDGE. Yes, that is required, I think, in most jurisdictions.

Deputy Chief Visconti. But I don't know what the standard is across the country.

Mr. ETHERIDGE. Sure.

Deputy Chief Visconti. All I know is the volunteers of my town, because I live outside of New York, they train, they have New York City fire officers who are members of their volunteer fire company. I give them classes on commander control and other things. I know they are interested in training, not only in what comes out of books but hands-on training. I know they are well prepared. I don't know if there is a standard of level of training across the country for that expertise.

Mr. ETHERIDGE. Madam Chairman, I know my time has expired. I do from State to State you do have this. I think it would be a great issue that ought to be developed simply because of the mobility of people today, the movement of transportation, the hazardous things that move across our borders and the interstates and the probability that it could happen today.

Thank you, Madam Chairman, I yield back.

Ms. CLARKE. Dr. McDaniel, I understand that the Louisiana Department of Environmental Quality, LDEQ, started gathering data, monitoring the environment and putting out information to everyone in Louisiana very soon after Hurricane Katrina made landfall.

What challenges did you face in obtaining this data, getting lab analysis done and et cetera?

Mr. MCDANIEL. I would say the greatest challenge and the thing that we are working on with EPA is getting the samples taken, the analysis time and turning the information around to the public as rapidly as possible. Sometime there is a delay of the time you take the sample, you deliver it to the lab and get the analysis.

So emphasis should be placed, and we are looking at this, on instrumentation in the field that gives you quick, at least surrogate

information that helps in protecting first responders. We got better and better as time went, but having prepositioned assets for remote sensing, for taking samples, whatever media it might come from, to be able to provide that information as rapidly as possible.

Ms. CLARKE. What additional support would you have liked to have seen from your Federal partners in the aftermath of Hurricane Katrina, acknowledging that there was some support provided by the National Center For Environmental Health and the EPA and others?

Mr. MCDANIEL. I would say that we enjoyed a pretty good working relationship, particularly with EPA region 6, and they were actually housed in our conference room in a unified command center, so we had a very close working relationship. I think that was very helpful to have that communication up front, very efficient, effective in responding.

I would say, again, going back to my first point, having them have the equipment or the assets, preposition or readily available that give us quick turn around on information on environmental sampling would be very helpful in any instance, of course.

We had the advantage of having a little time. Knowing that a problem was approaching, you don't always have that luxury.

Ms. CLARKE. In the aftermath of this storm, were there predictions about the types of toxins that would hit the area and how to mitigate that, and were you able to follow through on that?

Mr. MCDANIEL. Yes. One of the problems we had, quite frankly, was a lot of false information that was being put out. We were collecting information, you probably saw some of the press releases on toxic soup, toxic sludge, toxic air killing lake Lake Pontchartrain and on and on. We spent a lot of time trying to get information out, trying to quell the anxiety that was out there.

We found the floodwaters certainly were unsanitary. There was some fuel components in it. But this information was provided to the responders. We have a very good preventive program and training and briefings every morning so they know how to deal with those kinds of conditions when they get to the field.

Ms. CLARKE. Thank you very much, Doctor.

I want to turn to you, Dr. Landrigan. I understand that approximately 1,000 folks sign up every week for the Mount Sinai World Trade Center screening program. How has the screening program expanded since its inception, and are there issues that are not being addressed due to research or funding limitations?

Dr. LANDRIGAN. Yes, madam, the number of new responders who are coming in for the first time, even now 6 years and some after the attacks, fluctuates between 400 and 500 a month, new people, multiply that by 12, that is about close to 5,000 new people every year at the current rate. That has been holding steady for the last year and a half, 2 years.

At the present time, we are funded in the monitoring program through 2009, and it is moving along well. We have a very efficient system. The wait time for new visits for somebody who comes along is just a few weeks. We are in the process of attempting to set up a satellite out in Staten Island to take care of people in that borough and in areas of New Jersey.

Of course, we continue to work closely with Bellevue Hospital, Queens College, UMDNJ and State University of New York at Stony Brook. So I would say the monitoring program is doing well, but I am still saddened, as I said to Mrs. Lowey several moments ago, that there are probably 35—, 40,000 people who even now we have not yet now seen. We will continue to hope that they will come forward.

Ms. CLARKE. You didn't speak to any funding limitations or research challenges. Could you just give us a sense of the status of that?

Dr. LANDRIGAN. Well, clearly we will need continued funding. The funding sunsets in 2009. Indeed, we may run out sooner if the number of patients continues to come in at the rate they are coming, 4 to 500 a month. We will continue to keep you informed as to the status of that. Anything that you can and Congress can do to extend the funding beyond 2009 will be critically important.

Ms. CLARKE. The gentlelady from New York.

Mrs. LOWEY. Thank you, Madam Chair.

I wanted to follow up on one of my good friend from New York's questions concerning the equipment.

Chief Visconti, is the Federal Government doing enough to test equipment to ensure that it is truly safe? If you can comment on that.

Deputy Chief Visconti. Mrs. Lowey, you are referring to the personal protective equipment, the bunker gear that we are talking about?

Mrs. LOWEY. In other words, are there a lot of salespeople coming around trying to sell equipment, and do you feel that the Federal Government is taking response—I see people smiling. Maybe they are the salespeople in back of you.

Do you feel the Federal Government is testing the equipment to ensure that it is safe? Those of us who sit on appropriations as well work very hard to get the money for first responders and equipment. I just want to get a handle on whether it is being tested adequately.

Deputy Chief Visconti. I know for a fact that the National Fire Protection Association has standards for firefighter gear. I know that the Federal Government has standards for the gear.

The vendors, when they come in, no matter what the organization, they have to comply with an RFP. We have it tested. We run pilot programs which may appear, in some cases, to be too extensive, but we want to make sure that the equipment is good.

The equipment, bunker gear that firefighters have now is being constantly upgraded to include levels of protection from different contaminants, and not only from fire. These are not garments—they are meant to protect you for a limited amount of time, but they are putting barriers in them, which does create problems because of heat and exhaustion. But they are putting barriers in the garments so you can be protected from heat and elements.

Mrs. LOWEY. Thank you. I will have to come back to you for another question. I am sorry, Dr. McDaniel.

We all agree that those who are made ill deserve special care and attention. However, there are some people who disagree that care

needs to be provided by Mount Sinai and other centers of excellence and Federal resources. I strongly disagree.

I am pleased you are here to make the case that there needs to be more Federal support and some more medical monitoring and treatment.

If you could explain to us, number one, why isn't it sufficient for many of these individuals to obtain care from their primary care physicians?

And, what do you know, what do we know about the long-term health consequences of exposure to toxins at Ground Zero?

And what would happen if the funding for the centers did not continue, how important is it to have experience with a knowledge of World Trade Center-related illnesses, and truly helping these individuals obtain the diagnoses and care that they need? Tell us how important it is.

Dr. LANDRIGAN. Thank you, Mrs. Lowey. There are several reasons why these centers of excellence are critically important. First of all, lies in the high quality of the medical care that they can provide.

The people that went through 9/11, and I suspect in the future, people that might go through any future disaster that befalls this country, suffered a complex mix of exposures, cement, shards of glass, a unique soup of toxic chemicals. It is only at a major medical center that has experience in occupational medicine, as we do at Sinai and as our colleagues in the other institutions that I mentioned in the greater New York area—it is only—you need to have that expertise, you knew he had to be able to combine that expertise in occupational medicine with expertise in pulmonary medicine, gastroenterology, psychiatry, very important. Many of those folks have multisystem problems.

If they were to go to a general practitioner in a town or a suburb who was not in a position to call upon these other medical disciplines, then the care of the responder who put his or her life on the line is going to be compromised, possibly seriously compromised.

The second advantage of centers of excellence is that after a time of disaster, we gain experience. We have seen in the neighborhood of 22,000 patients. That is a great deal of experience. Out of that experience we have distilled recommendations for the provisions of optimal care. We worked with the New York City Department of Health to issue guidelines for the care of people.

If the care of these 22,000 people were scattered out among 15,000 practitioners who saw a few responders each, there would be no opportunity to accumulate that body of experience.

Thirdly and finally, an enormously important advantage that results from the existence of these centers of excellence is that we are in a position to keep records, track patterns of disease, recognize new diseases as they emerge. In the absence of some kind of centralized recordkeeping, that sort of medical surveillance would not be possible.

You ask, what does if future hold for these people? I don't know. None of us do.

But what I do know is that we will be able to spot the future as it begins to arrive if we have these centralized record systems

in hand that serve as what used to be called a distant early warning system.

Mrs. LOWEY. Thank you very much. Thank you, Madam Chairman. Thank you, Chair of the full committee. Thank you, Dr. Landrigan, Chief Visconti, Dr. McDaniel. Thank you very much.

Ms. CLARKE. I now call on our chairman, the gentleman from Mississippi.

Chairman THOMPSON. Thank you very much, Madam Chairman. I appreciate you stepping in while I stepped away for a few minutes.

Let me thank the panel.

A couple of questions come to mind.

Dr. Landrigan, to what extent do you, with the Mount Sinai project, relate to the Federal partners are you exchanging data? Explain a little bit of the relationship?

Dr. LANDRIGAN. First of all, we have a very close relationship with the other programs in New York City. Our group of firefighters, the FDNY, have aligned our medical programs very closely. We use pretty much the same protocols for doing the examinations on the two groupers of workers and recording the data. We also stay in very close touch with the health department and their registry that now encompasses 71,000 people.

With regard to the Federal partners, we work very closely. We are probably on our phone to our funding principal agency, NIOSH, at, least twice a day. It is almost constant communication. Folks from NIOSH are up to visit us, I would say on average, every 2 or 3 weeks. We exchange a great deal of information with them.

The other thing we do with their encouragement and support is we take the scientific analyses that we have conducted, based on our medical findings, and we write these up. We publish them in the peer-reviewed medical journals. We have done it several times in the past already. One of those articles is appended to my testimony.

The reason that we disseminate this information out in the peer-reviewed medical literature is to alert doctors across the country about our findings so that they will be educated, and they will be intellectually prepared in the future should there be further disasters.

Chairman THOMPSON. Thank you very much. One of my reasons for asking is, from a lessons-learned standpoint, the previous panel kind of said, well, it is our overall responsibility, but we haven't quite done it. So if that happened in Detroit or Chicago, would we have the 9/11 experience there starting, or have we put together a system that can now be incorporated into the broader picture?

I guess I am saying that what we are grappling with is based on the testimony of the last panel, we have not gotten to that point. I hope we have your participation in moving that part of the response puzzle, so that we follow people from the incident forward, and not have to pick it up along the way, and then try to catch up.

We feel that the Katrina situation is equally as troubling because when people come to help, there is very little regard for personal safety.

I think what we have to do, as Members of Congress, anticipate that certain things will happen when people offer themselves for

help, whether they have Federal, State, locals or just volunteers. But we want the system to work as fast as it can and not play catch up. So we are going to have to identify the people through some system, and that is a real challenge.

Chief, I hope over time we can provide the departments with the necessary equipment. People ought to be able to communicate with each other.

In most instances, the public already thinks that everybody can talk to each other any way, but that is not the case.

So that is a real issue for us. We are trying to get through the bureaucracies. You heard GAO say that those agencies who are responsible for it, we put the money there, but they can't work out the logistics of coordinating and cooperating with each other. So that remains a real challenge for us.

Let me thank you for your testimony. It is absolutely essential to helping us define legislatively what we can do. But it is people like you who are on the front line who ultimately have responsibility for not only carrying it out but helping us get it right.

So I appreciate you in that respect, as well as your service to your city or State and the Nation.

I yield back.

Ms. CLARKE. Mr. Chairman, you took my closing.

I thank the witnesses for their valuable testimony, and the Members for their questions.

The Members of the committee may have additional questions for the witnesses, and we ask that you respond expeditiously in writing to those questions.

Hearing no further business, the committee stands adjourned.

[Whereupon, at 1:20 p.m., the committee was adjourned.]

Appendix: Questions and Responses

Responses to Post-Hearing Questions for the Record
Protecting the Protectors: Ensuring the Health and Safety of our
First Responders in the Wake of Catastrophic Disaster
Committee on Homeland Security
House of Representatives
September 20, 2007

Questions for Cynthia A. Bascetta
Director, Health Care
Government Accountability Office

Questions for the Record Submitted by Chairman Bennie G. Thompson

1. To what extent have OSHA and FEMA clearly defined criteria to decide when OSHA will be responsible for carrying out its duties under the Worker Safety and Health Support Annex of the National Response Plan?

In our March 2007 report (GAO-07-193) on OSHA's response to Hurricane Katrina, we recommended that the Secretaries of the Departments of Labor and Homeland Security clearly define OSHA's and FEMA's roles in a disaster under the Worker Safety and Health Support Annex, including resolving the issue of how the need for long-term medical monitoring of workers involved in the response to future disasters will be met. However, OSHA has not responded to numerous requests for information on the status of its actions on this recommendation.

In FEMA's response, an agency official stated that OSHA and FEMA finalized standard operating procedures in August 2007 that detailed how the two agencies would operate in a disaster under the National Response Plan (NRP). According to FEMA, OSHA signed the procedures and forwarded them to FEMA for signature. However, before FEMA signed off on the procedures, the NRP was revised and became the National Response Framework (NRF). Among other changes, the NRF no longer uses the designation "Incident of National Significance," which was part of the criteria they developed to help determine when OSHA would become involved. As a result, the two agencies are now revising the standard operating procedures to conform to the NRF. The FEMA official told us he expected the revisions to be completed by the end of 2007.

2. There seems to be some confusion regarding how federal personnel were kept track of when they participated in emergency response activities, such as those occurring at the World Trade Center re: 9/11 and Hurricane Katrina.

- a. Can you please provide additional information regarding which departments and agencies kept lists of responders on their own, what processes were used to keep track (if at all), etc.

According to an HHS official, there was no systematic and coordinated effort to identify all federal responders during the response to the WTC disaster. Some federal agencies tracked the participation of their own employees during the response to the disaster, but some agencies did not. GAO did not identify the agencies that kept track of their employees, and our work did not examine the processes that were used by agencies to keep track of federal responders during the response to the WTC disaster.

Our work on Hurricane Katrina found that no one agency was assigned responsibility for collecting data on the total number of response and recovery workers deployed to the Gulf and no agency collected it. Ten federal agencies, however, provided estimates of the number of federal workers they deployed to the Gulf, and six of the ten also tracked the number of workers employed by their contractors. According to the Federal Emergency Management Agency (FEMA) and the Occupational Safety and Health Administration (OSHA), the ten federal agencies were: the Departments of Agriculture, Defense, Interior, and Health and Human Services; the Coast Guard; the Environmental Protection Agency; FEMA; OSHA; the U.S. Army Corps of Engineers; and the National Guard. Our work did not examine the processes in place that were used by the federal agencies to identify federal employees who responded to Hurricane Katrina.

- b. For the World Trade Center responders, was any of this information passed on to any of the screening programs?

As a part of recruitment and enrollment efforts for the WTC Federal Responder Screening Program, in October 2005, HHS's Office of Public Health Emergency Preparedness (OPHEP)—the federal implementing agency for the program at that time—contacted a total of 132 federal agencies, requesting them to provide contact information on the employees they sent to respond to the WTC disaster. Of these agencies, 92 indicated that they sent employees to respond to the disaster, and 39 of these 92 agencies provided information on people they believed might be eligible for the program. OPHEP officials said that 14 federal agencies told them that they wished to contact their employees themselves to inform them about the WTC Federal Responder Screening Program. Some federal agencies chose not to provide information about their employees. According to an HHS official involved in reconstructing a list of federal responders for the WTC Federal Responder Screening Program, concern about confidentiality was the main reason the agencies did not cooperate with the recruitment and enrollment efforts. Some federal agencies believed that medical screening was not necessary, and some agencies had their own screening efforts in place.

QUESTIONS FROM THE HONORABLE BENNIE G. THOMPSON, CHAIRMAN, COMMITTEE
ON HOMELAND SECURITY

RESPONSES FROM JOHN HOWARD, MD

Question 1: As the Federal Coordinator for World Trade Center (WTC) Health Issues, can you please describe for the Committee how you coordinate the activities among the various Federal agencies and non-governmental organizations involved in this effort and what challenges you have faced in coordination these different efforts?

(a) What research and health monitoring is the Federal government undertaking Gulf Coast?

(b) In your opinion, are first responders who were in the Gulf in the aftermath of Hurricane Katrina at risk for developing health problems?

As the WTC Coordinator for the U.S. Department of Health and Services (HHS), I coordinate existing HHS programs addressing WTC health effects. These programs include the WTC Responder Health Program (New York City Fire Department and Mt. Sinai School of Medicine), the WTC Federal Responder Screening Program, the Police Organization Providing Peer Assistance (POPPA), Project COPE, and the WTC Health Registry. I coordinate these programs by meeting regularly with the leadership of each to discuss program status and ongoing activities. I also host WTC Programs Coordination meetings to bring together program leadership and key representatives from federal, state and city government, community and labor organi-

zations to share program updates and explore opportunities for collaboration to better serve the affected population.

The National Institute for Occupational Safety and Health (NIOSH), in consultation with the Occupational Safety and Administration (OSHA), developed and broadly guidance for pre-and post-exposure medical screening programs for workers in hurricane disaster recovery areas soon after Hurricane These recommendations are available at: <http://www.cdc.gov/niosh/topics/flood/preexposure.html>; <http://www.cdc.gov/niosh/topics/flood/MedScreenWork.html>.

NIOSH has also conducted research to assess potential health effects associated Hurricane Katrina response effort. is currently funding a study at University to examine exposure to post-Katrina flood cleanup and restoration work and the risk of respiratory illness, symptoms, and decline in lung function in workers. Study participants (approximately 1,000 New Orleans area workers performing demolition work, trash and debris removal and disposal, sewerage and water line repair, construction work, tree cutting, and landscape restoration) will complete questionnaires and undergo standardized clinical testing annually over a five year period. The findings this study will provide valuable information on the respiratory impact of exposures, including the level or respiratory protection required in similar flood recovery operations.

As requested by the New Orleans Fire Department (NOFD), in October 2005 NIOSH conducted a health hazard evaluation of the NOFD. NIOSH investigators conducted a survey to evaluate physical and psychological consequences in NOFD personnel following work after Hurricane Katrina. The results showed that fire fighters who reported floodwater contact for longer than a few hours reported significantly more upper respiratory systems than those who reported no contact with the floodwater. Fire fighters experiencing these physical symptoms, as well as those involved in gun shot incidents and body retrieval more often reported systems consistent with depression and post traumatic stress disorder (PTSD). NIOSH recommended that New Orleans Fire Department management provide clinical follow-up of affected fire fighters for physical and psychological conditions should be implemented. Results of this and NIOSH recommendations were distributed widely through the International Association of Fire Fighters (IAFF) and through scientific publications. The full report is available at: <http://www.cdc.gov/niosh/hhe/reports/pdfs/2006-0023-3003.pdf>

Also in October 2005, NIOSH-I conducted a similar study at the New Orleans Police Department (NOPD) to assess the impact of the Hurricane Katrina disaster on employee physical and mental health. NIOSH conducted a survey and found that NOPD personnel frequently reported experiencing head and sinus congestion, nose and throat irritation, as well as symptoms consistent with PTSD and depression. Factors including contact with floodwater and isolation from family were associated with the physical and mental outcomes. NIOSH made a number of recommendations, such as suggesting NOPD management encourage personnel to seek follow up care for clinical and mental health symptoms, develop a disaster preparedness plan, and improve the incident reporting system. As a result the NOPD has implemented a disaster preparedness that has a contingency plan for evacuation and relief of personnel during disaster events. The NOPD continues to explore programs that provide guidance for crisis management and debriefing, to further to support officers. The results of this evaluation and subsequent recommendations will have implications for all police officers involved in disaster response. The full report is available at: <http://www.cdc.gov/niosh/hhe/reports/pdfs/2006-0027-3001.pdf>

Other important health and safety research conducted the Gulf Coast involved the use of respirators by the public in post-Katrina New Orleans, where respirators were recommended for mold remediation. This research indicated that only 24% of participants donned respirators properly. The resulting publication has received much attention because of its implications for use of respirators by the public in settings, such as during an outbreak of pandemic influenza. [Cummings KJ, Cox-Ganser J, Riggs MA, Edwards N, Kreiss K. Respirator donning in post-hurricane New Orleans. *Emerg Infect Dis.* 2007 May; 13(5):700-7. <http://www.cdc.gov/eid/content/13/5/7000.htm>]

In the aftermath of Hurricane Katrina, thousands of responders worked in a complex, uncontrolled environment; one that involved mixed chemical exposures, hazardous substances, microbial agents, and psychological stress. Most of the hazards have poorly characterized due to the changing nature of the site and the receding waters. Given the complexity of the Gulf Coast response, uncertainty regarding the extent of exposure, lack of regarding the use of personal protective equipment and follow-up treatment, it is not possible to generalize the risk of health effects to all Hurricane Katrina responders. However, based on available evidence, such as the NOPD and NOFD studies discussed above, some responders worked in environ-

ments with exposures that may have resulted in short—or longer-term health effects, including eye and respiratory respiratory illness, hearing loss and psychological stress.

Question 2.: Section 709 of the Safe Port Act of 2006 refers to research and a report to be conducted by the National Academies of Science on Disaster Area Health.

(a) What is the status of this research?

I am not aware of any research or reports being developed in response to the Safe Port Act of 2006. Section 709 of the statute has never received congressional funding and, therefore: has not been implemented.

QUESTIONS FROM THE HONORABLE BENNIE G. THOMPSON, CHAIRMAN, COMMITTEE ON HOMELAND SECURITY

RESPONSES FROM JON R. KROHMER, MD

Question 1: What are we doing to help local first responders that respond to emergencies at federal sites? They do not necessarily have all of the information regarding what is in those locations (e.g. locations of hazardous materials, military weapons caches, and scientific research on dangerous organisms).

Response: The universe of first responders includes law enforcement, fire, emergency medical services, and other public safety officials. Each facility and agency is responsible for identifying and marking potentially hazardous or dangerous situations, developing emergency action plans, coordinating those plans with local resources, and briefing any responders on current conditions when they arrive at any federally managed site. The Office of Health Affairs will work in the near future through the Federal Interagency Committee on Emergency Medical Services (FICEMS) to bring forward the issue of identification of best practices for addressing hazardous materials and other unique situations at federal sites for communication with local medical responders during an event, and when applicable, before an event. This type of initiative will also require coordination across interagency partners that work directly with other first responder groups. As funding and staff enable our office to establish our planned outreach program to state, local and regional partners, we will work with our partners to develop a model for identifying specific needs of local responders.

Question 2.: Has the OSHA role been modified in the National Response Framework versus the National Response Plan?

Response: The Department of Labor/Occupational Safety and Health Administration (OSHA) has been, and continues to be, a vital partner in Federal response activities under the National Response Framework (NRF). OSHA's primary intended purpose under the NRF is to provide resources, policies, and structures (e.g. technical assistance, safety monitoring, etc.) to other Federal agencies, States or other jurisdictions and entities during response and recovery activities of major incidents.

OSHA's key role as the coordinating agency for the Worker Safety and Health Support Annex remains unchanged from the National Response Plan (NRP) to the NRF. The purpose of the Worker Safety and Health Support Annex is to coordinate the management of worker safety and health among all responders (Federal, state, local, private sector, etc.) and provide worker safety and health resources to response organizations that are overwhelmed by the incident.

In addition to its role as coordinating agency for the Worker Safety and Health Support Annex, OSHA continues to serve as a support agency to various Emergency Support Functions and as a cooperating agency to certain Support Annexes and Incident Annexes. In addition to roles carried forward from the NRP, OSHA has been added as a cooperating agency to the new Critical Infrastructure/Key Resources Support Annex to the NRF.

Question 3: What is the status of the Component Services Directorate of the Department of Homeland Security Office of Health Affairs? When was this Directorate established? How does it interact specifically with relevant entities in the Department's Management Directorate?

How is the Component Services Directorate ensuring the Department's "early responder" workforce is provided with scientifically-based and regulatory-compliant occupational health and safety standards and practices?

As part of its goal to create a culture of wellness throughout the Department, what work has the Components Services Directorate done in the way of developing policies, standards, requirements and metrics for fitness-for-duty, drug testing, health screening and monitoring, health promotion and

management, pre-placement evaluations, and immunizations and deployment physicals—especially for the Departments “early responders?”

Response: The Office of Component Services within OHA was established concurrently with the Office of Health Affairs in April of this year. Until this month, the office has been staffed by one full-time detailee, one detailee divided between Component Services and pandemic influenza planning, and one part-time contractor focused on workforce protection issues related to pandemic influenza (which is being extended to “all hazards” workforce education to the extent possible). Funding, including any funding for personnel, was not available until a reprogramming was authorized late this summer. Consequently, the efforts to this point have focused on strategic planning and hiring actions for the initial staff to carry out the important functions of the office. The initial hiring actions are underway currently, with the first new staff member scheduled to report this month.

Having said that, the Associate Chief Medical Officer for Component Services has been extremely active in supporting specific incidents / activities—including the incorporation of the Division of Immigration Health Services into DHS/ICE; the DHS response to the Speaker TB incident and supporting the FEMA investigation into the trailer formaldehyde issues.

From the outset, a major philosophy in the operation of the Office of Component Services has been to establish a close working relationship between the Occupational Safety and Environmental Programs (OSEP) within the Office of the Under Secretary for Management and the Office of Health Affairs (OHA). DHS Management Directive 5200.2, which is currently in final vetting, provides that “It is DHS Policy to establish and maintain an effective and comprehensive safety and occupational health program which is consistent with the standards promulgated under the Occupational Safety and Health Act of 1970, E.O. 12196, and 29 CFR Part 1960.” Under this Directive, the role of the Assistant Secretary for Health Affairs is to serve as the primary policy advisor to the Secretary, Under Secretary for Management, and the Designated Agency Safety and Health Official (DASHO) on occupational medicine aspects of the safety and occupational health program. Backed by the seniority of an Assistant Secretary and with the subject matter expertise of physician staff, including an Occupational Medicine physician, the Office of Component Services will be well positioned to establish scientifically and medically valid policy, requirements, standards, and metrics that will serve to drive synchronization, standardization, and unification of occupational safety and health (OSH) policies and regulations across the department. Over the next fiscal year, we will catalog existing OSH programs within the Department and benchmark these against best practices in industry. Our goal is to complete this process over the fiscal year and, in conjunction with OSEP, reach 50% development of unified DHS OSH policies and regulations this year, laying the ground work for a complete program by the conclusion of the next fiscal year. The major challenge in accomplishing this goal will be the varied missions of the Department’s Components. This will require establishing a firm scientific and “best practices” basis in order to allow Component leadership to adopt common policies and procedures except in those areas where mission dictates unique approaches.

Specifically in regard to support for DHS employees during response to disasters, there are three major Components that OHA, specifically the Office of Component Services, will address: Ensuring medical readiness for response duties, ensuring availability of medical response for DHS employees during contingency missions, and minimizing safety risks during those missions.

OHA has a significant role, in conjunction with OSEP and the Components’ safety offices for the first two portions of this, while OSEP has the lead for the third. A significant role of the Office of Component Services within OHA is establishment of an emergency medical services (EMS) section with 2 primary roles: medical supervision of EMS services provided by or on behalf of the Department in support of its own deployed personnel, and establishment of policies, requirements, standards and metrics for EMS support of DHS operations. The EMS section will work closely with the Department of Health and Human Services (HHS) regarding those aspects of EMS that fall within HHS’s purview. Hiring of staff was started in late fiscal year 07 with the first personnel arriving in October 2007. In the interim, we are coordinating with the Components to catalog existing services and map gaps in medical supervisory support for EMS. The first employee, who is reporting later this month as noted above, is an EMS coordinator and OHA is in the process of hiring an EMS Physician Medical Director. Their role will be to ensure that appropriate emergency response systems, either directly provided or established through local services, are in place and that they have the required medical supervisory structures, including protocols and back-up, to enable their efficient operation during both day-to-day and contingency operations.

In addition, with the availability of funds, the Office of Component Services has converted the part-time detailee noted previously, into a full-time Director of Force Health Protection and Wellness, and is in the hiring process for a Director of Occupational Medicine. Their closely linked roles will be to coordinate with the Components to ensure that occupational health principles are incorporated into the job "life-cycle" of all appropriate DHS personnel, especially responders, to ensure coordinated policies and standards for issues such as duty-based physical standards, pre-placement physical evaluations, periodic physical evaluations, pre-response medical preparation, etc.

Finally, OSEP has the lead for all safety programs, including those related to response operations. Through an MOA with OSEP, OHA will function as a major partner in these safety operations through adding medical/scientific basis to recommendations and providing a senior-level, "third party" voice for safety controls in operational environments.

Question 4: What is the Medical Readiness Directorate of the Office of Health Affairs doing specifically to coordinate medical readiness of first responders?

Response: The Office of Medical Readiness is currently in the process of hiring a Medical First Responder Coordinator, based on funding that has recently become available through a reprogramming that was authorized late this summer. This position will be responsible for serving as the DHS point of contact for all medical first responders. Even though this personnel action is currently pending, the Office is actively engaged with the medical first responder community through representation on the Federal Interagency Committee on Emergency Medical Services (FICEMS), and through growing coordination of activities, including grants, with DHS and DHHS. It is the goal of the Office to better incorporate issues related to medical first responders into initiatives related to planning, training, exercises, and funding throughout relevant parts of the federal government and to ensure that medical first responders are more fully integrated into local emergency management communities through the country.

Question 5: We understand that federal first responders were turned away from screening programs offered to non-federal first responders, and that many have a cap on how much mental health counseling their health insurance will pay for, before they have to pay for these services out of their own pockets.

Since we know that post-traumatic stress disorder and other responses to these sorts of incidents can go on for decades, affecting productivity now and in the future. **How will the Office of Health Affairs address these sorts of mental health issues for the Federal "early responders" working in the Department?**

Response: The Office of Health Affairs has worked closely with our occupational safety and health colleagues on issues related to World Trade Center response issues, and recognize that there are problems with ensuring all employees have taken advantage of resources that are available to them. Because every agency determines independently how it will comply with Federal Occupational Safety and Health Guidelines (as required by Executive Order 12196, "Occupational Safety and Health Programs for Federal Employees" and 29 CFR Part 1960, "Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters") and because agencies use various occupational health services providers, there is no consistent occupational screening program across the government. Therefore, even for our federal responders, there is no structured mechanism, at present, to get good information beyond the voluntary enrollment mechanisms.

Current Federal workers, who were exposed to environmental hazards at the World Trade Center site and choose to register for tracking, are screened through Federal Occupational Health (FOH) clinics and other clinics that have contracts with FOH throughout the country. Retired Federal workers and intermittent Federal employees hired during the post-9/11 period to work in Manhattan have access to screening through the NIOSH Medical Monitoring program. Because these programs are voluntary they will not provide useful epidemiologic data, but they will ensure that Federal Employees have a safety net to see that their needs are addressed.

The exposures to environmental hazards in the aftermath of Hurricane Katrina were much less homogenous and also spread across many more agencies. This would likely contribute to an inability for some federal employees to access common support for post event screening and care. We appreciate the Committee alerting us to this issue and will actively engage with the components to provide assistance and guidance in ensuring all DHS employees have appropriate access to screening and treatment.

Question 5: We understand that a decision was made we understand that the Office of Health Affairs recently declined to include the CONTOMS program (Counter Narcotics and Terrorism Operational Medical Support Program) in the Office of Health Affairs. The program is expressly designed to “protect the protectors,” by providing advanced training (beyond EMT-B) to medics who’s job it is to provide emergency medicine under difficult conditions to our tactical first and early responders. It is the only program of its kind for which faculty are both sworn law enforcement officers and medical practitioners, with extremely current real-world experience (such as with the shootings at Virginia Tech, combat operations in Iraq, Ruby Ridge, Waco, and Hurricane Katrina). Participation in this specific program has been mandated by state and local tactical and special operations law enforcement units (such as SWAT) throughout the country, and that requirement continues today.

How did the Office of Health Affairs arrive at this decision?

How will the Office of Health Affairs ensure that this training will be provided to the component agencies within the Department that need and would clearly benefit from this training, without contracting out to academic programs at greater cost to the government?

How will the Office of Health Affairs ensure that this training is obtained by those state and local units that have mandated its completion, without increasing the costs at the state and local level?

What does the Office of Health Affairs believe should be offered in its stead?

Response: The Office of Health Affairs shares the Committee’s concerns regarding the medical support of tactical law enforcement officers and all early responders. The DHS Office of Health Affairs agrees that the Counter-Narcotics/Terrorism Operational Medical Support (“CONTOMS”) has been a valuable contributor to the development and ongoing support of the field of tactical medicine. The decision of the Office of Health Affairs not to absorb the existing program from Immigration and Customs Enforcement (ICE) is in no way abandonment of the principles embodied in CONTOMS, but a recognition that the “playing field” has changed in the nearly 20 years since CONTOMS was established. OHA believes that the approach we are taking, based on establishment of requirements, policies, protocols, standards, and metrics, enhances DHS support of tactical medicine throughout the country.

As you are aware, ICE’s Federal Protective Service (FPS), of which the Protective Medical Branch is a component, recently completed a restructuring in order to more efficiently ensure the protection of Federal offices throughout the country. As part of this restructuring, the Protective Medical Branch was discontinued in order to better focus available FPS resources on facility protection.

Recognizing the importance of federal leadership in tactical medicine programs, OHA has established, within the Office of Component Services, an Operational Medical Services branch. The focus of this branch is to ensure that operational personnel of DHS, many, but not all of whom would be considered “tactical law enforcement” personnel, have appropriate medical support in whatever environment to which they are assigned. In accomplishing this function, it is important to note that OHA was not established to be an operational component of DHS. While OHA may in the future develop very limited operational medical capabilities for support of DHS personnel and missions, OHA’s primary focus is and will be to provide operational components with medical guidance (requirements, policies, protocols, standards, and metrics, as noted previously), to include the medical supervisory chain to Chief Medical Officer. As a part of this medical guidance OHA will continue research into tactical medicine and support of tactical medicine protocols and training which will be of significant benefit not only to the Department, but to law enforcement officers throughout the country. In fact, by shifting tactical medicine issues from an operational branch of a small segment (FPS) in one of the Department’s operating components (ICE), to an office only one level removed from the Assistant Secretary for Health Affairs and Chief Medical Officer, these issues will get the attention and resourcing they deserve. It should also be noted that the Deputy Assistant Secretary / Deputy Chief Medical Officer is extremely supportive of tactical medical activities, having served for over 10 years as a tactical physician and the medical director for several TEMS programs.

Additionally, in the 18 years since CONTOMS was initiated at the Uniformed Services University of the Health Sciences, a number of similar programs focused on tactical emergency medical support have developed throughout the country. Chairman Thompson’s home state of Mississippi is home to one of oldest such organizations in the country, the Tactical Medical Operators Group (TMOG) of Mississippi (www.tmog.org), which is dedicated to training, support, and medical direc-

tion to tactical medics and SWAT operators within the state of Mississippi. OHA management approach to this issue is to focus on the internal DHS requirements, while using our own needs to act as a catalyst to effectively synchronize activities and findings of groups like TMOG. Consequently, the role of DHS will not primarily be as a service provider, as was the focus of CONTOMS and PMB, but as a scientifically-based standards-setting organization (in conjunction with national groups such as the National Tactical Officers Association, the Tactical Emergency Medical Services Association, the American College of Emergency Physicians, the National Association of EMS Physicians, the National Association of EMS Directors, and the National Registry of Emergency Medical Technicians). It is also important to note that there are, in fact, several TEMS training programs throughout the country in which faculty are both sworn law enforcement officers and medical practitioners.

The initial funding for the OHA mission is part of the pending fiscal year 2008 DHS appropriation. In the interim, available funds have been used to hire the first member of the operational services staff who will be the coordinator for programs and protocols for the office. Over the next several weeks, OHA will be hiring the first OHA Director of Emergency Medical Services who will head that branch within the Office of Component Services.

QUESTIONS FROM THE HONORABLE BENNIE G. THOMPSON, CHAIRMAN, COMMITTEE ON
HOMELAND SECURITY

RESPONSES FROM PHILIP J. LANDRIGAN, MD, MSC

I would like to thank you and the Committee on Homeland Security for your continuing vigorous investigation into the question of how this nation can best protect the health and safety of our first responders in the aftermath of catastrophic disasters.

To assist you in this important work, my colleagues and I are pleased to share with you the lessons that we have learned through the World Trade Center Monitoring and Treatment Program that is supported at the Mount Sinai School of Medicine in New York City by the National Institute for Occupational Safety and Health (NIOSH), and to respond to the questions that you have asked in follow-up to your recent hearing:

Question 1: We understand that 1,000 approximately sign up every week for the Mt. Sinai World Trade Center Screening Program.

a. How has the screening program expanded since its inception?

The World Trade Center Medical Monitoring and Treatment Program at Mount Sinai has received federal funding from since April 2002. The focus of the program from its inception has been on workers and volunteers who served at Ground Zero, at the Staten Island landfill, and at other locations where there was potential for occupational exposure to World Trade Center dust. The program has expanded and transformed several times since 2002.

Initially, the program was called the World Trade Center Worker and Volunteer Medical Screening Program. At that time, it was funded to see 9,000 responders for a single medical screening examination for the purpose of assessing health problems post 911 the target number was expanded a few months later to 12,000. It was intended initially that the program would continue only until spring 2004.

By 2004, however, it was becoming clear that there were substantial continuing health problems in responders and that a larger number of responders than anticipated had become ill as a consequence their work. Also by 2002, we had identified groups of workers not previously included in the initial criteria for eligibility. These included mechanics who had worked on vehicles contaminated by debris as well as PATH (Port Authority Trans-Hudson) workers who labored in WTC-dust-contaminated PATH tunnels. Initially, eligibility covered only a narrow geographic area, as the program wanted to make sure people who were exposed came in for an examination. Once the capacity of the program was established and we had demonstrated our capacity to reach this initial population, the program was able to expand parameters for eligibility. To date, there have been 7–8 alterations/expansions to the eligibility criteria. With the identification of new groups, eligibility criteria also, expanded geographically.

In July 2004 the program was reconstructed and renamed the World Trade Center Medical Monitoring Program. This change in name reflected the fact that the program was now expected to see workers and volunteers periodically—every 12 to 18 months—rather than merely once for screening. To date, the program has performed 22,224 initial examinations, has seen approximately 8,000 of these workers

and volunteers for a second examination, and approximately 1200 for a third examination. All data from all examinations are stored in a computerized database.

A further major transformation of the program occurred in the fall of 2006. At that time, treatment for covered World Trade Center conditions began to be provided with federal support and at no cost to WTC responders who were enrolled in the Screening or Monitoring Program. Provision of treatment without charge was necessary because many responders had little or no health insurance before 9/11 or subsequently lost their insurance as a consequence of their work-related illness.

Many new responders still continue to contact the program for initial examinations at this time—six years the attacks of September 11, 2001. These are persons whom we have never previously seen. Some come to our program because they have symptoms, while others are free of symptoms, but have come to appreciate the wisdom of obtaining a baseline examination. Thus approximately 500–600 new eligible participants have registered with our program each month over the past two years.

Three major lessons that we have learned from this experience are:

- (1) It is important to anticipate that the number of first responders who will become ill as a consequence of their heroic work will be large;
- (2) It is important to anticipate that illnesses in at least some responders will be severe and persistent; and
- (3) It is important to anticipate that treatment as well as diagnostic services will be needed for responders

b. Are there issues that are not being addressed due to research or funding limitations?

An impediment to the World Trade Center Medical Monitoring and Treatment Program is that the program has received no funding for research. This has hindered our ability to conduct detailed investigation into causes of illnesses in responders and into treatments. Despite this limitation, we have collected data on over 22,000 individuals who have received over 31,000 cumulative standardized examinations and we have published descriptions of our findings.

Research funding would provide a vitally needed opportunity to further explore these findings in greater depth so that physicians who will care for future responders will better understand the full spectrum of World Trade Center related health effects. Such research could be instrumental in identifying new treatment modalities.

The lesson here is that provision funding for research into health effects in responders should be an integral component of planning for future disaster response.

An additional impediment is that funding for the Medical Monitoring Program was allocated for only four and one-half years. According to this timetable, examinations will cease in FY 09. We see this as a major unresolved problem, because illnesses in many responders and their prognosis is unclear. Funding for the treatment program is also time-limited and will soon end if not renewed. If the program ceases, we will not be able to answer questions related to the long-term implications of exposures sustained at the WTC site. This is very important since many diseases related to dust exposure may take years to manifest. Similarly, we will not be able to answer questions about the possible persistence of disease. A further consequence of program cessation will be that the collective expertise of the WTC Centers of Excellence, particularly in terms of the care of the WTC responders, will be lost.

The less for the future here is that there must be established a stable, multi-year source of funding to sustain the provision of medical care of first responders.

Question 2.: What does the data generated by Mt Sinai indicate about the impact of the World Trade Center events on the ability of first responders to breathe?

Of 9,442 responders examined between July 2002 and April 2004, 69% reported new or worsened respiratory symptoms while performing WTC work. Of these, 46% had lower respiratory symptoms, and 62% had upper respiratory symptoms. Symptoms persisted to the time of examination in 59% of these workers.

On pulmonary function testing, 28% had abnormal spirometry forced vital capacity (FVC) was low in 21%; and obstruction was present in 5%. Among nonsmokers, 27% had abnormal spirometry compared with 13% in the general population. Prevalence of low FVC among nonsmokers was 5-fold greater than in the population (20% vs. 4%). Respiratory symptoms and spirometry abnormalities were significantly associated with early arrival at the site.

2.1. Would you recommend additional research to improve personal protective equipment, including respirators?

Many of the respirators available to responders were unsuitable, and responders did not receive adequate training in their use. Additional research to develop better respirators is certainly warranted.

The failure of federal Occupational Safety and Health Administration (OSHA) to require respirator use at Ground Zero was in my opinion a serious dereliction of duty. OSHA's failure to act is not justified by the fact that average levels of exposure to dust were below OSHA's standards, because OSHA's reliance on average levels of exposure fails to protect workers against the intermittent high-dose exposure to toxic substances that are common in urban demolition work. OSHA's failure to act to require respirators at Ground Zero contrasts painfully with their aggressive insistence on the use of respirators at Staten Island landfill and at the Pentagon.

The lesson here is that insistence on proper personal gear is essential for the protection of worker health, OSHA must enforce the law.

My colleagues and I deeply appreciate your continued support and work on behalf of those heroic responders whose health was affected by the World Trade Disaster. We agree with you that it is essential to extract all possible lessons from this tragedy so that responders to future disasters may be optimally protected.

Please do not hesitate to contact me with any additional questions.



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN (BIBI) BLANCO
GOVERNOR

MIKE D. MCDANIEL, Ph.D.
SECRETARY

October 19, 2007

Honorable Bennie G. Thompson
Chairman
U.S. House of Representatives
Committee on Homeland Security
176 Ford House Office Building
Washington, DC 20515-6400

SUBJECT: Committee Hearing Entitled "Protecting the Protectors: Ensuring the Health and Safety of our First Responders in the Wake of Catastrophic Disasters,"
Held September 20, 2007

Dear Chairman Thompson:

Thank you for your letter of October 4 and your kind comments.

I am transmitting with this letter the responses by the Louisiana Department of Environmental Quality (LDEQ) to the questions contained in your letter. I trust our responses provide the information you were seeking. However, should you have any further questions or need additional information or clarification, please do not hesitate to contact me.

LDEQ appreciates the opportunity to provide this information to the Committee on Homeland Security and hopes that it stimulates discussions and actions that will be helpful to those responding to the next major disaster.

Sincerely,

Mike D. McDaniel, Ph.D.
Secretary

c: Colonel Jeff Smith, Governor's Office of Homeland Security and Emergency Preparedness
Terry Rydler, Executive Counsel
N.J. Danico, Chairman, LA House of Representatives Environment Committee
Huellette Clo Fournot, Chairman, LA Senate Environmental Quality Committee
Richard E. Greene, Regional Administrator, EPA Region 6
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On September 20, 2007, Dr. Mike D. McDaniel, Secretary of the Louisiana Department of Environmental Quality (LDEQ), testified before the U.S. House Committee on Homeland Security at a hearing entitled, "Protecting the Protector: Ensuring the Health and Safety of our First Responders in the Wake of Catastrophic Disasters."

On October 4th, Dr. McDaniel received a letter from Committee Chairman Dennis O. Thompson indicating that the Committee intended to continue its inquiry into the Department of Homeland Security's capabilities and responsibilities with respect to first responders. In his letter, Chairman Thompson included some follow-up questions for LDEQ. We respond to the questions in the following text, but also take some license to provide relevant information on lessons learned that we feel will be helpful to the Committee's inquiry as well.

1) What additional support would you have liked to have seen from your federal partners in the aftermath of Hurricane Katrina (acknowledging that some support was provided by the National Center for Environmental Health, the EPA, and others)?

Overall, LDEQ was very pleased with the support and cooperation of our federal partners working together with us as an Incident Management Team in the Unified Command Center set up at LDEQ headquarters in Baton Rouge immediately following landfall of Hurricane Katrina. Now, over two years following the storm, we continue to enjoy support from some of our federal partners in cleanup and recovery efforts. However, we were confronted with some challenges that we feel the federal government should review and address to provide better protection for first responders in future catastrophes.

a. As soon as Hurricane Katrina moved inland and winds began to diminish, LDEQ employed its aircraft for aerial reconnaissance for environmental damages and threat assessments. One immediate concern centered on the large number of railcars and barges seen upended, overturned, and flooded throughout the area. The images contained in Attachment 1 provide examples of what we saw in our initial reconnaissance flights. Based on LDEQ's experience with releases of hazardous materials from rail and barge accidents, we were quite concerned about the potential for environmental spills or releases from these carriers of large quantities of extremely hazardous materials.

Under federal Emergency Planning and Community Right to Know Act (EPCRA) requirements, LDEQ had access to information on the kinds and quantities of hazardous materials stored at the larger industrial facilities, and our licensing requirements for radioactive sources provided us with access to information on the kinds and quantities of radioactive materials stored at our licensed facilities.

Unfortunately, there was no mechanism to quickly obtain information on locations of rail and barge carriers containing large quantities of extremely hazardous materials.

Immediately following Hurricane Katrina, LDEQ began contacting railroad companies by phone, e-mail, and fax requesting information on location and contents of railcars in the impacted area. Some rail companies were very responsive to our requests, others were slow to respond. On September 9th, LDEQ sent out an "Emergency Administrative Order for Information" to each of the 17 railroads affected by the hurricane. Overall, it took about two weeks to get the majority of the information we needed to address the potential hazards presented by the railcars and barges.

To deal with this type situation in the future, LDEQ and the Louisiana Department of Public Safety, under Governor Blanco's direction, promulgated a rule establishing procedures for the reporting of information regarding hazardous materials that are in transit and/or temporarily stored at a facility and that could present a threat to human health and the environment if compromised during a Category 3 or higher hurricane. A copy of this rule and an accompanying compliance guide are attached (Attachments 2 and 3, respectively). It is suggested that the Committee on Homeland Security consider a similar requirement at the federal level.

b. LDEQ appreciates the Committee's request for what additional support from our federal partners would have been helpful. However, we feel it is also important to point out the assistance we received from our federal partners that was particularly valuable to us in responding to the hurricane and that we hope will be available to us in future catastrophes.

Louisiana's entire coast line was impacted by Hurricanes Katrina and Rita. Almost 80 percent of metro New Orleans was flooded for over a month following the two hurricanes. Rapid reconnaissance for damage and threat assessment was critical to emergency response planning for protection of first responders, affected public, and the environment. Technological resources provided to us by our federal partners were invaluable force multipliers, enabling us to survey large areas and obtain important information that we simply could not have obtained otherwise. These resources included:

SATELLITE IMAGERY -

Commercial satellite images (GeoEye - ECHOS) of the flooded metro New Orleans area taken and available immediately (September 2, 2005) after the storm provided LDEQ with the ability to print wall-sized maps available for planning purposes in our Unified Command Center. NOAA's renditions of satellite imagery with estimated depth and extent of flooding throughout the New Orleans area were also valuable for response planning efforts.

LOW ALTITUDE/HIGH RESOLUTION AERIAL PHOTOGRAPHY -

The day after Hurricane Katrina made landfall on the U.S. Gulf Coast, NOAA began aerial photography flights of the affected areas. A NOAA Casra Citation aircraft flew two to three missions each day only stopping to refuel. Nearly 2,000 aerial images were produced from these missions. These images were made available to LDEQ, and were valuable in our environmental damage and threat assessments as well as for determining points of access for our field crews' emergency response planning efforts.

EPA'S ASPECT AIRCRAFT -

A partnership between EPA and the U.S. Department of Defense has led to the development of equipment mounted in a small aircraft (Aero Commander 480 - See Attachment 4) that can obtain detailed chemical information from a safe distance. The equipment - Airborne Spectral Photometric Environmental Collection Technology (ASPECT) - is an emergency response sensor package operated by EPA. It provides first responders and crews that are planning to go into an area with information on possible chemical hazards. It can detect both chemicals and radiological materials. It is also capable of collecting high-resolution digital photographs and video, and can take thermal and night images. It is equipped with a Global Positioning System and uses navigation data to match photographic and infrared information with physical locations. At LDEQ's request, EPA Region 6 made the ASPECT aircraft available for reconnaissance and damage and threat assessments over the flooded New Orleans area immediately following Hurricane Katrina.

EPA'S TAGA MOBILE AIR QUALITY MONITORING VANS -

The Trace Atmospheric Gas Analyser (TAGA) is a self-contained mobile laboratory (see Attachment 4) capable of real-time sampling and analysis in the low parts-per-billion level of outdoor air or emissions from various environmental sources and concerns.

EPA made two of its vans available for air quality sampling immediately following Hurricanes Katrina and Rita.

DOE'S AIRBORNE RADIATION DETECTOR EQUIPMENT -

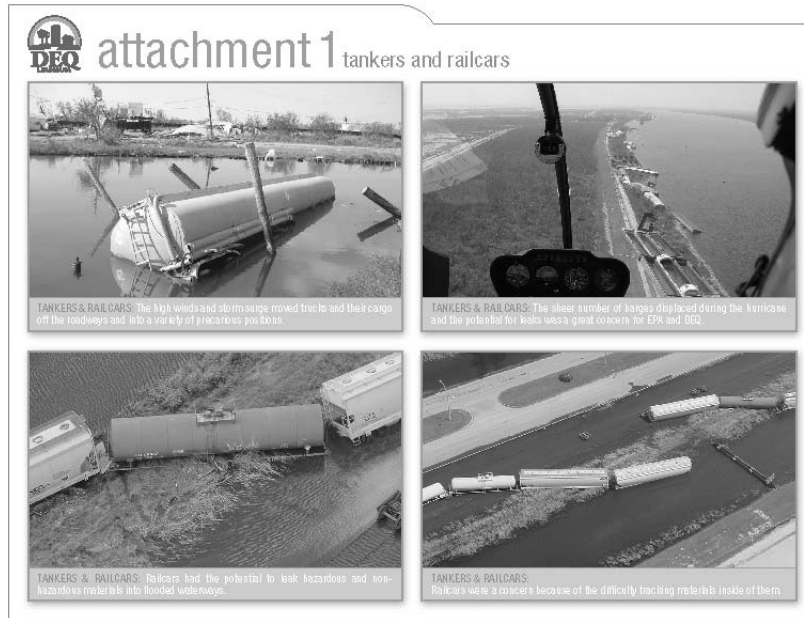
In early September, LDEQ requested the Nuclear Regulatory Commission's (NRC) assistance in enlisting Department of Energy (DOE) help for a flyover of the area when it became safe to do so. NRC worked with LDEQ's emergency response staff to establish a plan to enter the area if the flyover revealed a need. At LDEQ's request, DOE flew radiological detection equipment over the New Orleans and Lake Pontchartrain areas to ensure no large sources had been removed from their shielding. The DOE flights began on 9/8/05 and continued on 9/9/05, 9/11/05, 9/12/05, and 9/13/05.

2) We understand that the LDEQ started gathering data, monitoring the environment, and putting out information to everyone in Louisiana very soon after Hurricane Katrina made landfall. What challenges did you face in obtaining this data, getting lab analysis done, etc.? How did the destruction of the infrastructure (such as laboratory facilities) affect any step in the process?

Although a number of agencies (state and federal) were collecting environmental samples, LDEQ and EPA were responsible for the majority of area-wide environmental sampling and analysis. Samples of water (floodwaters, Lake Pontchartrain and surrounding waters, Mississippi River water intakes, etc.), soils and sediments, air, and biota were taken throughout the hurricane and flood-impacted areas. Sampling results were provided to emergency responders through the Unified Command Center and to the public through press releases and website postings.

Perhaps the greatest challenge in the sampling, analysis, and reporting process was the need to minimize, to the extent possible, the time between sample collection and reporting of the data. LDEQ eventually was able to turn around quality-assured sample results in 3-4 days, whereas EPA experienced much longer turnaround time due to lab contractor logistics and clearing the release of data through several layers of the EPA organization. Recent conversations with EPA Region 6 suggest that EPA is working on procedures to shorten their turnaround time.

Both LDEQ and EPA were fortunate that our laboratory assets were away from and undamaged by the hurricanes.



Attachment 2—Title 33 Environmental Quality Part V.¹
Attachment 3—Hazardous Materials and Hazardous Waste Reporting Requirements under Emergency Conditions¹

¹See committee file.

 **attachment 4** technology

 <p>TECHNOLOGY: The sensor pod is mounted on a sensor pod to fly over the suspected area to an altitude that reads that the sensor pod is not too low.</p>	 <p>VIEW 1: SENSOR POD <i>20 41.124K 00 08.01.0M</i></p> <p>VIEW 2: SENSOR POD</p> <p>TECHNOLOGY: The sensor pod is mounted on a sensor pod to fly over the suspected area to an altitude that reads that the sensor pod is not too low.</p>
 <p>TECHNOLOGY: The pod provides the sensor pod, which provides real time air quality readings and has high resolution digital photos from the suspected area.</p>	 <p>TECHNOLOGY: The pod also allows for TAD, a mobile air quality laboratory. The pod provides an accurate throughout the suspected area after the event.</p>

