



Testimony

of

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**New York City Department of Health and Mental Hygiene**

before the

**Committee on Sanitation and Solid Waste Management jointly with the Committee on Environmental Protection, the Committee on Parks and Recreation, and the Committee on Health**

on

**Post-Storm Cleanup and the Effects on the City's Health and Infrastructure**

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250 Broadway  
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Good afternoon Chairpersons James, Arroyo, Mark-Viverito, and Gennaro, and members of the Committees. I am Daniel Kass, Deputy Commissioner for Environmental Health at the New York City Department of Health and Mental Hygiene. I am joined today by Dr. Thomas Matte, Assistant Commissioner for Environmental Surveillance and Policy, and Christopher D'Andrea, the Acting Director of the Environmental and Occupational Disease Epidemiology Program. On behalf of Commissioner Farley, thank you for inviting me here today to discuss the impact of Hurricane Sandy on the City's environmental health.

We are here to discuss aspects of the City's preparation and response to several concerns related to the hurricane, and the Department's role in monitoring and responding to several conditions. And before I go any further, I want to thank the City Council for their partnership during and after the storm; this was a significant natural disaster, and we appreciate your leadership during this time of crisis.

Hurricanes have occurred with regularity in southern coastal states, and the lessons for environmental health have been instructive for our own preparation and response. New York City's Coastal Storm Plan anticipates a variety of potential health concerns and environmental threats, and our Department began its preparation to assess and respond to those once the national weather forecast predicted the potential for significant storm surges.

The Division of Environmental Health is responsible for oversight of several areas that were anticipated to be affected by Hurricane Sandy. These include: the prevention of poisonings and chemical exposures, the prevention of foodborne illness, the control of rodents, the prevention of hypothermia and the surveillance of ambient air quality conditions. In addition, the Division provides guidance on mold assessment and remediation.

The power outages that often accompany hurricanes have led, in other areas, to significant death and morbidity from carbon monoxide poisoning, usually from the improper and unsafe use of gasoline powered generators during power outages. Anticipating these concerns, the Department issued its first warnings and public alerts on the day of the storm to avoid using generators indoors and near windows. For this, and the other areas of environmental health concerns, it accelerated its surveillance of conditions, monitoring calls to the NYC Poison Control Center, and reasons for visits to emergency room visits and hospitalizations. These messages on how to prevent carbon monoxide exposure were regularly emphasized throughout the response to Hurricane Sandy, and were supplemented by the creation and dissemination of a variety of fact sheets. Carbon monoxide exposure continued to be a concern for homes affected for long periods of time by the loss of heat, even as power was restored to the grid in all of the affected areas. In many of these homes, people resorted to using gas ovens and stoves to heat their homes.

Carbon monoxide calls and emergency department visits increased after the storm and in early November there were several severe cases of carbon monoxide poisoning. However the overall rate of carbon monoxide calls and emergency department visits declined dramatically after that time. In New York City, just one carbon monoxide death in early November was related to using a stove for heat. This is in contrast to several carbon monoxide deaths reported in nearby states following Sandy and in southern states following hurricanes Katrina, Rita and Ike.

Hurricanes are also frequently associated with outbreaks of foodborne illness. These occur from the consumption of food that was not kept properly refrigerated, prepared in conditions that result in contamination from flood waters, or from the transmission of pathogens in congregate settings. The Department, anticipating these concerns, again issued notices to the public and to food service establishments on the day of the storm to refine our instructions and guidance. On the day after the storm, the Department posted a notice and distributed to restaurants in affected areas facts on how to properly dispose of food and how they may safely operate under conditions of limited power. Public health sanitarians were deployed to each of temporary shelters to supervise food service. They remained there until the shelters were closed. Sanitarians also were deployed to lower Manhattan, Staten Island, Brooklyn and Queens to offer assistance to restaurants that were cleaning up and restarting their operation. Graded inspections and notices of violation were suspended in these areas through the end of 2012. We are pleased to report that there were no known occurrences of foodborne illness outbreaks in New York City associated with Hurricane Sandy.

A day after the storm, we reassigned sanitarians and exterminators from our rodent control program to survey conditions in the flooded areas of the City. We did not initially find that there were significant changes in conditions – if anything there were fewer outward signs of rats, as storms often reduce the rodent population. While we suspended the issuance of notices of violations, we continued our work of notifying property owners when signs of rats were found, and we exterminated free of charge where appropriate. Our neighborhood surveys also helped to identify areas where there were significant accumulations of waste that had the potential to attract rats. We also saw an overall decline in pest control related complaints in the months after the storm. We will respond to complaints and assess whether neighborhood specific increases reflect a longer term trend. We continue to monitor 311 complaints and deploy our staff to respond.

Hurricanes have the potential to affect the respiratory health of the public in a variety of ways. Hurricane Sandy coincided with the expected seasonal increase in respiratory viral infections, which exacerbate asthma and other chronic respiratory conditions. At the same time, damage caused by the storm made it more difficult for some of these people to access healthcare and prescription medications. In addition, some people in heavily damaged areas were living without heat, which can exacerbate respiratory health problems. Some were exposed to irritants, including dust produced from home repairs, cleanup and debris removal, mold growth caused by wet and damaged building materials, fumes and gases from using stoves and portable gas heaters for heat, and strong cleaning products.

In the immediate aftermath of the storm, from October 30 through November 2, DOHMH analysis of emergency department visit data showed an increase in visits for asthma and other respiratory complaints in the storm inundated areas of the City, which within days returned to the level expected for the fall season. As the annual flu season arrived around mid-November, emergency department visits for influenza-like-illness increased across the City before peaking in January.

The City continues to respond to these concerns in a variety of ways. In the immediate aftermath of the storm, the City distributed fact sheets in neighborhoods letting people know where

pharmacies were open. It worked with chains and payers to waive co-pays to encourage timely refilling of prescriptions. Health Alerts were issued to providers throughout New York City on respiratory health concerns and the risks of living in cold. At the same time, the City worked to restore essential building systems in public housing damaged by the storm and in privately owned residential buildings.

As recovery efforts from Hurricane Sandy continued, some homes in the hardest hit areas remained without heat. As the winter months approached, the Mayor warned New Yorkers that prolonged time in apartments or homes without heat can cause hypothermia and exacerbate heart disease and other medical problems, especially infants, the elderly, people with chronic diseases and people with mental illness or substance abuse problems. Dust and air quality conditions outdoors in neighborhoods have been monitored since early after the storm. The New York City Department of Environmental Protection began air monitoring at debris piles to check dust levels and the presence of asbestos, a concern since basement materials were being cleared out and disposed of. Asbestos was rarely found in samples, and when it was, it was below levels of concern set by the federal government. Ambient air quality is routinely monitored by the New York State Department of Environmental Conservation through a network of air samplers, but few of those are located in areas directly impacted by the storm. New York City agencies worked with the state to place additional stations in Lower Manhattan, in the Rockaways, and Staten Island. Our Department deployed additional lamppost-mounted air sampling devices as part of Community Air Survey work into the Rockaways, Coney Island and Staten Island as well. We also sent teams of technicians into these areas to monitor particulate levels using handheld devices at various times after the storm.

All of the sampling results by city and state agencies are posted to the web, and we summarize all of the findings on our Hurricane Sandy Health portal. In general, we have found that outdoor air quality in residential areas was not adversely impacted by the storm or recovery operations. Higher traffic and construction activities can generate additional dust, and essential generators and boilers can create additional street-level emissions, but levels in impacted communities have been within the range of conditions found across the City.

As communities continue to rebuild, we remain concerned about the safety and efficacy of reconstruction. Floods leave behind extensive damage to homes long after the waters have receded. Wet building materials and household furnishings support the growth of mold in homes. As you may know, the Department of Health was the first in the nation to issue mold remediation guidelines, back in 1993. These guidelines continue to be models for other federal, state, and local agencies. The lessons learned over decades of guidance on mold demonstrated to us the importance of early warnings about how to respond to floods. Mold can be prevented and addressed best by ensuring that saturated porous building materials and belongings, such as sheetrock, insulation, carpeting, upholstered furniture, and clothing, are removed. Mold itself can be cleaned off from hard surfaces and structural wood components. Before reconstruction can occur, it is critical that all building components be entirely dry. We have also recommended the use of mild bleach solutions to help disinfect surfaces and materials that were wetted with flood waters.

The Department issued its first mold guidance for Hurricane Sandy on Sunday, October 28, the day before the storm, on the agency's website. Mold-safe guidance was distributed in print form in the days immediately following the storm at the FEMA centers and later at the restoration centers in all affected areas. Fact sheets were distributed in-person, or under the doors of tens of thousands of homes during the City's canvassing operations and posters with instructions for safe flood and mold cleanup were put up in gathering spots in the impacted areas. We met with volunteer organizations, such as Occupy Sandy, to train volunteers and began attending community meetings during the early recovery stage to share guidance. To date, DOHMH has participated in 25 community meetings to provide mold related information to residents in affected areas. Department of Health staff trained on mold prevention and remediation was available every day for more than two months to answer questions at the City's Recovery Centers.

The Department recommends the use of N-95 respirators or better for people involved in reconstruction and mold removal. To date, more than 286,000 respirators have been distributed in communities through volunteer organizations and to individuals. As I mentioned earlier, we continue to monitor health conditions that could be associated with Hurricane Sandy. Reconstruction activity is likely to continue to contribute to indoor dust exposure, but we have not seen unusual numbers of people with severe respiratory symptoms in emergency rooms or hospitals, either in the affected areas or elsewhere in the City.

Mold remediation will be ongoing. We have been working with the Mayor's Fund to make mold remediation training available throughout the affected areas. A contract was awarded to Hunter College and the University of Medicine and Dentistry of New Jersey to conduct more than 70 three-hour trainings to homeowners, volunteers and contractors on proper mold assessment and remediation using a curriculum based largely on the City's mold guidelines and approved by our Department. I'd like to thank the Council Members who have been helpful in identifying training locations and promoting them to your constituents. The Mayor's Fund, along with the Robin Hood Foundation and the Red Cross, are also supporting the direct remediation of homes through a contract with the Local Initiative Support Corporation. LISC is subcontracting with volunteer organizations and contractors to carry out this work. The Health Department will help monitor this activity and provide technical guidance as it begins.

The ongoing recovery will pose challenges, with many people still occupying residences without heat and undergoing construction. The lessons learned from other hurricanes helped inform New York City's preparation and rapid response to the storm, helping to reduce the potential for significant environmental health threats. We are happy to answer your questions. Thank you.