

## Questions for the Record

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**House Energy and Commerce Subcommittee on Oversight and Investigations**

*Examining HHS's Public Health Preparedness for and Response to the 2017 Hurricane Season*

**Tuesday, October 24, 2017**

**The responses are current as of November 2017**

**The Honorable Greg Walden**

- 1. According to the Centers for Disease Control and Prevention's (CDC) testimony on October 24, 2017, laboratories in Puerto Rico are not able to conduct any public health tests because of damage sustained during Hurricane Maria. As a result, the CDC is lending support and arranging clinical specimens for suspected priority infectious diseases-such as tuberculosis, leptospirosis, rabies, influenza, and salmonella-to be sent to the U.S. mainland for testing. To date, how many specimens has CDC sent to the U.S. mainland for testing?**

Since October 20, 2017, CDC has received specimens for testing various priority pathogens from Puerto Rico. CDC reports these results to the Puerto Rico Department of Health (PRDOH) for official confirmatory test results reporting. The PRDH is then responsible for publically reporting the results. As of November 25, 2017, CDC has assisted PRDOH with:

- Leptospirosis testing from 324 suspect cases, of which 42 have been identified as either a confirmed or probable case of leptospirosis.
  - Tuberculosis (TB) testing from 59 suspect cases, of which 21 have been confirmed.
  - Influenza testing from 65 suspect cases, of which 48 have been confirmed.
- a. Approximately how long does it take for CDC to receive a diagnostic result for the samples it sends to be tested on the U.S. mainland?**  
CDC receives shipments of specimens three times a week from Puerto Rico for confirmatory disease testing. Actual testing times vary depending on the sample type and test being performed. Average testing times range from two to five days. For TB testing, tests are performed at multiple public health labs and some samples require repeat testing.
  - b. What, if any, infectious diseases have been detected through the testing of these specimens?**  
Please see the response to Question 1 above.
  - c. Do the laboratories in Puerto Rico have generator power yet? If not, when does CDC expect the laboratories in Puerto Rico to be at least partially functional?**

As of November 27th, Puerto Rico Department of Health's (PRDOH) San Juan main facility which includes eight individual laboratories, is currently all powered by generators. PRDOH's satellite laboratories in Mayaguez and Ponce have power through the electrical grid. As of November 6th, PRDOH's satellite laboratory in Arecibo had power through a generator.

PRDOH's laboratories sustained significant damage during Hurricane Maria. It is important to note that there may be other reasons besides a lack of power, such as damaged testing supplies or equipment, which prevent the laboratories from operating as they did prior to the hurricane.

CDC will continue to work with PRDOH and other Federal agencies to re-establish important public health infrastructure such as disease surveillance and laboratory diagnostics.

**d. Has CDC assessed what, if any, equipment from the laboratories can be salvaged?**

As part of the work to get the public health laboratory back in operation, CDC experts deployed to Puerto Rico to assess immediate laboratory needs, including equipment and supplies that have been damaged and need to be fixed or replaced. CDC has also partnered with the Association of Public Health Laboratories to conduct a laboratory assessment to understand the current status of laboratory activities, prioritize activities to restore essential testing services, and determine long-term needs. This assessment identified a need for critical lab supplies and equipment to replace what was damaged during the hurricane. CDC is working with the CDC Foundation, in accordance with agency statutory authority, to fulfill these needs.

**2. What disease risks have been detected by CDC's National Syndromic Surveillance Program in the affected regions?**

CDC's National Syndromic Surveillance Program receives diagnosis codes reported by deployed Disaster Medical Assistance Teams during this hurricane response. The majority of patient encounters in Puerto Rico and U.S. Virgin Islands (USVI) by the Disaster Medical Assistance Teams have been related to injuries or existing chronic disease.

Additionally, CDC's hurricane response is working with PRDOH to help provide leptospirosis, tuberculosis, and influenza diagnostic testing. CDC reports these results to PRDOH for official confirmatory test results reporting. These results are then officially and publically reported by PRDOH. As of November 25, 2017, CDC has assisted PRDOH with:

- Leptospirosis testing from 324 suspect cases, of which 42 have been identified as either a confirmed or probable cases of leptospirosis.
- TB testing from 59 suspect cases, of which 21 have been confirmed.
- Influenza testing from 65 suspect cases, of which 48 have been confirmed.

In addition to the National Syndromic Surveillance Program, CDC has provided diagnostic testing to confirm the presence of leptospirosis, tuberculosis, and influenza cases in Puerto Rico. Moreover, CDC has numerous other disease surveillance programs that capture conditions of

public health importance. Of note, there may be lags in any identified conditions being confirmed and reported by PRDOH.

**3. During the Agency's hurricane response efforts, has CDC identified any scarcities of medical supplies, such as vaccines, that could hinder the public health response efforts? If so, could you please elaborate?**

As part of this response effort, CDC's Strategic National Stockpile has procured \$143,000 worth of vaccines to support Puerto Rican vaccination programs targeted to protect adults from vaccine preventable disease. CDC is also coordinating with HHS to procure vaccines to support immunization program efforts in USVI.

CDC defers questions related to pharmaceutical shortages due to the hurricanes to the FDA.

**The Honorable Gus Bilirakis**

**1. Can you discuss public health surveillance post-storm?**

To understand the burden of diseases in hurricane-affected areas, public health authorities rely on surveillance systems and the ability to conduct laboratory tests for specific diseases. In Puerto Rico and the U.S. Virgin Islands (USVI), surveillance and lab capacity have been greatly diminished due to Hurricane Maria. Identifying and controlling diseases of public health importance in hurricane-affected areas is a top priority for CDC and HHS. Through the Epidemiology and Laboratory Capacity cooperative agreement, CDC supports 64 jurisdictions (including all 50 states and U.S. territories) to help with prevention and surveillance efforts and build laboratory capacity for addressing infectious diseases. Puerto Rico Department of Health's (PRDOH) infrastructure sustained significant damage during Hurricane Maria, including to their laboratories. To date, the laboratories have only been able to conduct limited public health testing.

CDC provided in-the-field technical assistance and leadership to USVI, including two Community Assessments for Public Health Emergency Response (CASPERs). The CASPERs assessed immediate community needs, behavioral and physical health status, and vector control concerns to inform ongoing response and recovery efforts. On November 12, 2017, a CDC team deployed to USVI to assist in investigations of disease as requested. The CDC team is assisting the USVI Department of Health with patient screening guidance and rapid diagnostic tests for leptospirosis and melioidosis to supplement pre-existing surveillance activities. The team is also assisting in the coordination of shipping diagnostic samples to CDC for confirmatory testing, investigating confirmed and probable cases of leptospirosis and melioidosis in an attempt to discover the exposures that led to infection, and conducting public and clinician outreach and education regarding leptospirosis and melioidosis. CDC has also provided on-the-ground technical consultation to USVI regarding vector control.

In Puerto Rico, CDC's Dengue Branch resumed testing for arboviruses like Zika, dengue, and chikungunya in early October. This arbovirus disease surveillance supports preventing the spread of vector borne diseases in Puerto Rico by initiating mosquito surveillance in forests, open fields, swamps, and high- and low-density urban areas to determine mosquito densities and advise local and federal authorities on control measures. CDC has also developed and implemented a system

for transporting leptospirosis, influenza, and tuberculosis specimens from Puerto Rico laboratories to the continental United States for testing.

As part of the work to get the public health laboratory back in operation, CDC experts have deployed to Puerto Rico to assess immediate laboratory needs and have provided essential laboratory supplies. CDC has also partnered with the Association of Public Health Laboratories (APHL) to conduct a comprehensive assessment of laboratory needs. This assessment is critical to help ensure long-term laboratory capacity and positive health and public health outcomes of residents in Puerto Rico.

Syndromic surveillance is used to monitor health-related data that precede diagnosis and signal a probable disease case or outbreak. This surveillance system uses existing data as an early warning system of disease outbreaks, and water or food contamination. As part of response activities, CDC's National Syndromic Surveillance Program ([www.cdc.gov/nssp](http://www.cdc.gov/nssp)) has partnered with Disaster Medical Assistance Teams (DMAT) in affected areas to collect all data on DMAT patient encounters. CDC has also partnered with the Department of Veterans Affairs (VA) to develop an enhanced surveillance system for Puerto Rico's main VA medical center and the island's two largest VA community-based outpatient clinics to monitor priority diseases of epidemic potential.

As part of the response to Hurricanes Irma and Maria, since September 2017 the Epidemiology Surveillance Task Force has been tracking infectious and non-infectious diseases in the affected states and territories using the methods below:

- Syndromic surveillance using Disaster Medical Assistance Teams and Department of Defense data,
- Department of Veterans Affairs Medical Center data for selected illnesses and injuries,
- Hurricane-related deaths through online media reports,
- Shelter surveillance, and
- Poison control center reports.

**a. What public health and health care delivery challenges still exist?**

This has been a challenging hurricane response and recovery effort. Especially in the territories, significant damage from the hurricanes has caused problems with water supplies, sanitation, food supply, electricity, transportation, shelter, communications, security, medical care, and mosquito control. Additionally, each of the affected areas—Texas, Louisiana, Georgia, Florida, Puerto Rico, and USVI—have distinct characteristics and challenges based on both their situation before the storms and the severity and characteristics of the three different hurricanes. The 2017 hurricanes that have hit the U.S. have been unusually frequent and intense compared to previous hurricane seasons. Hurricane Harvey took a serious toll on Texas, resulting among other things, in major mold issues from the extensive flooding. Florida was heavily impacted by Hurricane Irma, which took out more than 60 percent of the state's power after the storm, prompting many residents to use generators, and leading to many cases of potential carbon monoxide (CO) poisoning/death. For example, CO poisoning during Irma was attributed to 17 deaths (15 in Puerto Rico, one in South Carolina and one in North Carolina); and of the total poison exposure calls to National Poison Data System (NPDS), 16 were during Harvey, 165 during Irma, and six during Maria.

Infrastructure challenges in Puerto Rico and USVI before the storms compounded the devastating impact of Hurricanes Irma and Maria. For example, prior to the storms, power outages in Puerto Rico were common, as a result of aging energy infrastructure.

Communicable disease outbreaks of diarrhea and respiratory illness can occur when water and sewage systems are not working, and personal hygiene is hard to maintain as a result of a disaster. Crowded living conditions in shelters can also create conditions for infectious disease outbreaks. It is critical for the public health system to quickly set up tracking systems that monitor illnesses in hurricane-affected areas. CDC is working closely with Puerto Rico and USVI, and other Federal agencies to re-establish important public health infrastructure such as disease surveillance and laboratory diagnostics.

**b. Have previous public health hazards (like Zika) been heightened? If so, how do we proactively address during our recovery process?**

Significant damage from the hurricanes has caused problems with water supplies, sanitation, food supply, electricity, transportation, shelter, communications, security, medical care, and mosquito control. Post-hurricane environmental conditions may pose an increased risk for the spread of infectious diseases among persons in or recently returned from hurricane-affected areas. Contaminated drinking water and reduced access to safe water, food, and shelter in some areas may create conditions for outbreaks of infectious diseases such as leptospirosis, hepatitis A, typhoid, vibriosis, Zika, dengue, chikungunya, and influenza.

Post-hurricane transmission of mosquito-borne diseases such as Zika remains a threat. CDC's Dengue Branch, located in Puerto Rico, and the PRDOH Laboratory have resumed testing since the hurricanes. CDC resumed testing on October 9<sup>th</sup>, and PRDOH resumed testing in early November.

The Dengue Branch has tested almost 3,000 blood and urine samples from its enhanced surveillance site in southern Puerto Rico from cases with onset dates between September and November.

CDC is also working with PRDOH to prevent the spread of vector borne diseases in Puerto Rico. Mosquito surveillance in forests, open fields, swamps, and high- and low-density urban areas will determine mosquito densities and form the basis for control measures.

Moreover, CDC is providing technical assistance to the CDC-funded Puerto Rico Vector Control Unit. Through this assistance, CDC is informing messaging strategies to encourage community participation in cleaning up trash where mosquitoes, like *Aedes aegypti*—the mosquito species that transmits Zika, dengue, and chikungunya can lay eggs. For safe water storage, CDC has recommended that containers be covered with lids or screens to prevent mosquitoes from laying eggs. The Vector Control Unit has procured and begun disseminating insect repellent to communities.

To assist the USVI, CDC's Atlanta lab has provided surge testing of arboviruses (viruses spread by insects). To date, one post-hurricane case of Zika has been reported in the USVI to CDC, although there can be significant storm-related reporting lags of testing results. CDC has also provided on-the-ground technical consultation to the USVI regarding vector control. The USVI is currently conducting mosquito surveillance.

CDC will continue to work with the Puerto Rico and USVI departments of health on requests for support of vector-borne disease prevention, as requested.

**The Honorable Frank Pallone, Jr.**

- 1. There have been 51 deaths officially associated by Hurricane Maria, as reported by the Puerto Rico government. The Center for Disease Control has confirmed three deaths due to leptospirosis. To date, the island has reported 76 possible cases of the disease. What is the Department of Health and Human Services (HHS) doing to prepare for the potential onslaught of disease caused by contaminated drinking water and the spread of leptospirosis?**

CDC is working with the Environmental Protection Agency (EPA) and public health officials to identify health risks and prevent illness from unsafe water and to restore public health capacity. CDC conducted basic water testing immediately following the hurricane and EPA followed up with additional testing for fecal contamination. Both CDC and EPA have worked with Puerto Rico and the U.S. Virgin Islands (USVI) to educate home and business owners on methods of treating their household water to reduce the risk of waterborne disease.

On October 24, 2017, CDC released a CDC Health Advisory to advise health care providers treating patients in or recently returned from hurricane-affected areas, including Puerto Rico and USVI, to be vigilant in looking for certain waterborne and vector-borne infectious diseases that hurricane affected populations may be at particular risk for, such as leptospirosis, Zika, dengue, and chikungunya.

CDC also coordinated with the Puerto Rico Department of Health (PRDOH) to provide updated guidance on preventing the spread of infectious diseases targeted for medical care providers and healthcare facilities. CDC developed 17 fact sheets, adapted and translated for general audiences in Puerto Rico, to include safe food and water, leptospirosis, coping after a disaster, safe use of generators, handwashing, conjunctivitis, mosquito control, mold clean up, cleaning cisterns, scabies, and diarrhea. To improve overall disease and prevention communication, CDC has issued key messages for the public about preventing leptospirosis and other diseases. CDC has developed and is frequently updating hurricane key messages. The key messages can be found on CDC's website at <https://www.cdc.gov/disasters/hurricanes/index.html>.

In addition to the health communication materials disseminated to the public and clinicians, on November 12, 2017, CDC personnel deployed to assist in investigations of disease as requested by USVI. The CDC team is assisting the USVI Department of Health with patient screening guidance and rapid diagnostic tests for leptospirosis and melioidosis. The team is also assisting in the coordination of shipping diagnostic samples to CDC for confirmatory testing, investigating confirmed and probable cases of leptospirosis and melioidosis in an attempt to discover the exposures that led to infection, and conducting public and clinician outreach and education regarding leptospirosis and melioidosis.

To assist PRDOH with laboratory testing, CDC developed and implemented a system for transporting specimens from Puerto Rico laboratories to the continental United States for

confirmatory testing of select diseases, including leptospirosis. As recovery continues, CDC expects to gain more clarity on the status of infectious diseases in Puerto Rico and USVI and stands ready to assist with the surveillance and infrastructure needs of the Puerto Rico and USVI health departments, as needed.

**2. What are HHS, CDC, and other involved federal agencies doing to ensure local Puerto Rico government employees have the necessary health and safety equipment to protect themselves during their ongoing relief and recovery workers?**

CDC is working with the Occupational Safety and Health Administration (OSHA) to support occupational safety and health issues that arise during the response. CDC is aware that OSHA's National Alliance partners agreed to donate Personal Protective Equipment (PPE), including gloves, hard hats, and reflective vests, to help protect volunteers and workers performing hurricane recovery and clean-up efforts in Puerto Rico and USVI. CDC has developed a key messages document that provides information on how employers, workers, and volunteers responding to Hurricane Maria can protect themselves from a variety of response and recovery hazards. CDC is aware of reports of shortages and reduced inventories of respirators in the U.S. Virgin Islands; we are working to determine the causes for the shortages, and we spoke with the organizations representing PPE manufacturers and distributors to understand if any shortages existed in the supply chain.

**a. Which federal government agencies are responsible for providing needed Personal Protective Equipment (PPEs) to relief and recovery workers?**

There is no single agency officially responsible for providing personal protective equipment during an emergency. If existing stockpiles and government procurement of commercially available supplies are insufficient to meet relief and recovery demands, CDC maintains supplies of PPE in the Strategic National Stockpile that may be deployed to support such requirements.

**3. What precautionary measures and/or infrastructure is currently in place to treat potential disease outbreaks in geographically remote areas?**

CDC's Dengue Branch, located in Puerto Rico, has been helping prevent the spread of vector-borne diseases in Puerto Rico through mosquito surveillance in forests, open fields, swamps, and high- and low-density urban areas. CDC has not otherwise received requests from Puerto Rico to support disease surveillance in Puerto Rico. CDC has also provided on-the-ground technical consultation to USVI regarding vector control, and USVI is currently conducting mosquito surveillance.

Public health surveillance provides the information necessary to determine that a disease outbreak is occurring. CDC is working with the Department of Veterans Affairs, the Disaster Medical Assistance Teams, and Department of Defense to establish public health surveillance in Puerto Rico. To date, CDC has not received requests from Puerto Rico to support disease

surveillance or epidemiology support. CDC stands ready to support epidemiological and surveillance activities for infectious diseases as needed for Puerto Rico.

Although overall challenges still exist, progress is being made, as evidenced by CDC's Dengue Branch, located in Puerto Rico, and the PRDOH laboratory being able to resume mosquito-borne disease testing of specimens since the hurricanes. CDC's Atlanta laboratory has also provided surge arbovirus testing support to USVI. To date, CDC has not received requests from Puerto Rico to support disease surveillance outside of the CDC's Dengue Branch's surveillance activities. To further support the Puerto Rico Department of Health, CDC continues to transport specimens from Puerto Rico laboratories to the continental United States for confirmatory testing of select diseases, including leptospirosis, influenza, and tuberculosis. As recovery continues, CDC expects to gain more clarity on the status of infectious diseases in Puerto Rico and USVI, and stands ready to assist with surveillance and infrastructure needs of the Puerto Rico and USVI health departments as needed.

**4. What percentage of the population of Puerto Rico and the U.S. Virgin Islands currently has access to potable water through their tap? Is the CDC certain that, where water service has been restored, that the water is safe to drink?**

According to FEMA's November 17, 2017 Hurricane Maria report, 83 percent of water treatment plants in Puerto Rico are operational, and 85 percent of clients of the Puerto Rico Aqueducts and Sewers Authority (PRASA) have access to drinking water. However, due to inconsistencies in the power-grid, treatment plant pumps have had difficulty maintaining pressure throughout the distribution lines. Combined with unknown line breaks and potential for contamination entry, Puerto Rico and St. Croix are still under a boil water advisory. According to the U.S. Virgin Islands Water and Power Authority (WAPA), the boil water notice was lifted for St. Thomas and St. John on November 7, 2017. CDC continues to work with EPA and Puerto Rico and USVI health authorities to monitor municipal water quality. Based on the water meeting safe standards, WAPA and EPA will make the decision when to lift the boil water notice in St. Croix.

**The Honorable Jan Schakowsky**

- 1. Following up, in the aftermath of disasters like these devastating Hurricanes, government should provide relief and recovery workers with required health and safety protections and Personal Protective Equipment (PPEs) to ensure workers' health is not compromised during current and ongoing clean-up and future rebuilding. Unfortunately, we have heard that this is causing problems in Puerto Rico.**

**We know Puerto Ricans in both the private and public sector want to do the work needed to help rebuild their lives, homes, communities, and their Commonwealth. Government workers are willing and eager to help address short-term needs -even when working as assigned by the Puerto Rico government is outside their long-standing employee responsibilities and expertise. Nonetheless, workers simultaneously want to protect their own health and safety and avoid unnecessary health problems. The long-term medical**



**problems flowing from the tragic events on September 11, 2001 and the resulting cleanup efforts at Ground Zero and on the Pile taught us the vital importance of providing appropriate health and safety equipment and training to workers in conditions that are dangerous or uncertain.**

- a. What is HHS, CDC, and other federal agencies doing to ensure local Puerto Rico government employees have the necessary health and safety equipment to protect themselves during their ongoing relief and recovery work?**

CDC is coordinating with the Occupational Safety and Health Administration (OSHA) to support occupational safety and health issues that arise during the response. CDC is aware that OSHA's National Alliance partners agreed to donate PPE, including gloves, hard hats, and reflective vests, to help protect volunteers and workers performing hurricane recovery and clean-up efforts in Puerto Rico and the U.S. Virgin Islands. CDC has developed a key messages document that describes messages for how employers, workers, and volunteers responding to Hurricane Maria can protect themselves from a variety of response and recovery hazards.

- b. Have these issues been addressed in Puerto Rico?**

Shortages and low supplies of respirators in Puerto Rico and USVI have been reported. CDC spoke to the professional associations representing PPE manufacturers and distributors to learn if there were true PPE shortages. They reported no shortages at the time.

- c. Which federal government agencies are responsible for providing needed PPEs to recovery workers?**

There is no single agency responsible for providing personal protective equipment during an emergency. If existing stockpiles and government procurement of commercially available supplies are insufficient to meet relief and recovery demands, CDC maintains supplies of PPE in the Strategic National Stockpile that may be deployed to support such requirements.

### **The Honorable Kathy Castor**

- 1. I also heard from these health professionals that water sanitation is one of the biggest issues in Puerto Rico right now, which is leading to gastrointestinal issues as well as systemic infections. How is the Administration helping get clean water to Puerto Rico, especially to remote areas? Additionally, how is HHS working with health professionals on the ground to treat illnesses stemming from the lack of clean water?**

CDC's /Agency for Toxic Substances and Disease Registry field staff in Puerto Rico have facilitated contacts between the Environmental Protection Agency (EPA) and the Puerto Rican authorities. We also currently have a representative on a workgroup dealing with water quality.

CDC is working with EPA and public health officials to identify health risks and prevent illnesses from unsafe water and to restore public health capacity. CDC conducted basic water testing immediately following the hurricane and EPA followed up with additional testing for fecal contamination.

Both CDC and EPA have worked with Puerto Rico and the U.S. Virgin Islands (USVI) to educate home- and business owners of methods of treating their household water to reduce their risk of waterborne disease.

**2. Physicians have told me they are seeing other health issues such as asthma, COPD, conjunctivitis, scabies, diabetes, and hypertension being exacerbated due to lack of medications, power, transportation and supplies, increased air pollution from generators and unsanitary living conditions. Is HHS monitoring this situation, and what steps are being taken to address these additional health issues?**

Identifying and controlling diseases of public health importance in Puerto Rico and USVI is a top CDC and HHS priority. Of concern, the Puerto Rico Department of Health sustained significant damage during Hurricane Maria, including to their laboratories. CDC is working with the Puerto Rico Department of Health and the Federal Emergency Management Agency (FEMA) to get the public health laboratory back in operation. Additionally, given the extensive hurricane damage and limited power and communications, regular timely and comprehensive disease surveillance is not yet possible. CDC's National Syndromic Surveillance Program, in coordination with the HHS Assistant Secretary for Preparedness and Response (ASPR), and Disaster Medical Assistance Teams, are routinely monitoring approximately 115 syndromic surveillance data groupings. These medical data come from on-the-ground patient-provider contacts that provide awareness of disease trends to help guide response actions.

CDC has been communicating generator-use safety messages in multiple languages through print, broadcast, internet, social media and other channels. Thousands of safe generator-use and Carbon Monoxide poisoning awareness door hangers and flyers have been distributed in hurricane-affected areas. CDC has provided technical assistance to Texas and Florida for Carbon Monoxide poisoning surveillance. CDC has also provided technical assistance to Puerto Rico, USVI, and the American Academy of Pediatrics on public messaging to prevent Carbon Monoxide poisoning.

CDC staff have deployed to Texas, Puerto Rico and USVI to support state and territorial health departments in monitoring and addressing health issues related to air pollution from improper generator use and mold in flood-damaged buildings. CDC has several guidance documents for homeowners, workers, and clinicians about mold remediation, personal protective equipment, and cleanup, and about mold safety for medically vulnerable populations and patients with asthma. These have been developed, updated, translated to multiple languages, and distributed online and in print to all affected areas. Tens of thousands of copies of *Eight Tips For Mold Clean Up* have been distributed in multiple languages. Also available is the *Homeowner's and Renter's Guide for Mold Cleanup After Disasters*; a tool developed jointly by CDC, EPA, FEMA, the Department of Housing and Urban Development, and the National Institutes of Health based on experience with Hurricane Sandy and earlier storms. CDC has provided over 100,000 copies of an activity book for children on flooding and mold safety in a recovery environment.

CDC's Strategic National Stockpile deployed six Federal Medical Stations into Puerto Rico. Federal Medical Stations are non-emergency medical centers that could provide care for displaced persons with special health needs. These needs included chronic health conditions, limited mobility, or mental health issues that cannot be met in a shelter for the general

population. As of November 17, 2017 all Federal Medical Stations in Puerto Rico had officially been signed over to the Puerto Rico Department of Health. As of November 14, 2017, the Strategic National Stockpile had provided more than \$2.5 million in supplies, totaling more than 339 tons of cargo, to support public health needs resulting from Hurricane Maria. These supplies included 81 tons of supplies for Disaster Medical Assistance Teams; \$475,000 in additional medical supplies purchased for Puerto Rico; 177,000 bottles of water; and 42,000 meals ready to eat. In addition, a total of 115 CDC Strategic National Stockpile staff have supported procurement, shipping logistics, inventory management, warehouse operations in Puerto Rico, and site surveys for the Federal Medical Stations.

CDC also continues to provide technical assistance to the Puerto Rico Department of Health regarding immunizations program activities and support for vaccine needs. As part of this effort, the Strategic National Stockpile, has procured vaccines worth more than \$143,000 along with \$37,000 in purchased ancillary supplies, to support Puerto Rican vaccination programs. As of November 15, 2015, CDC committed an additional \$2.24 million to meet additional vaccine requirements.

On November 12, 2017, a CDC team deployed to USVI to assist with patient screening guidance and rapid diagnostic tests for leptospirosis and melioidosis. The team will also assist in the coordination of shipping diagnostic samples to CDC for confirmatory testing to discover the exposures that led to leptospirosis and melioidosis infection, and will conduct public and clinician outreach and education.

### **The Honorable Pete Olson**

**1. After tackling 3 Hurricanes in a short period of time, what strains have you seen on your current resources. Also, what additional resources do you need to provide these communities the help that they need?**

Since August 31, over 580 CDC staff members have supported the hurricane response. CDC is also providing technical assistance to federal, state, local, territorial, and tribal partners to save lives, minimize adverse health and medical effects, and stabilize public health and medical infrastructure. Communicable disease outbreaks of diarrhea and respiratory illness can occur when water and sewage systems are not working and personal hygiene is hard to maintain as a result of a disaster. Crowded living conditions in shelters can also create conditions for infectious disease outbreaks. It is critical for the public health system to quickly set up tracking systems that monitor illnesses in hurricane-affected areas. These systems provide an early warning that enables prompt public health response, including vaccinations and interventions to remove threats from water and food. While CDC cannot engage in the full range of comprehensive hurricane recovery activities without the supplemental appropriations request, CDC is providing the following support to areas affected by these hurricanes:

- Environmental health surveillance and laboratory testing to identify environmental hazards such as chemical spills and mold
- Crisis communications (including translating critical messages into multiple languages), media support, webinars, Clinician Outreach and Communication Activity (CoCA) calls, and other partner outreach
- Vaccination supplies

- Laboratory capacity assessments and diagnostic testing
- Subject matter expertise as requested.