## New York City Health Care System Preparedness Annual Report

July 2015 to June 2016

New York City Department of Health and Mental Hygiene

Office of Emergency Preparedness and Response





Dear Colleague,

The New York City Department of Health and Mental Hygiene is pleased to present the enclosed "New York City Health Care System Preparedness Annual Report: July 2015 to June 2016." This report shows how the Health Department helped New York City (NYC) health care facilities—including hospitals, dialysis centers, long-term care facilities, ambulatory care facilities and pediatric services—strengthen their ability to respond to emergency incidents in 2015 and 2016.

The Health Department works with health care providers and public health stakeholders to achieve the best outcomes for New Yorkers before, during and after emergencies. Some of our many accomplishments in fiscal year 2016 included:

- Working with 54% of the NYC hospitals that provide pediatric services to exercise their emergency plans
- Organizing the Long-Term Care Emergency Management Program, which helped 92 nursing homes and six adult care facilities to increase their emergency management capabilities
- Connecting 449 primary care sites to the Primary Care Emergency Preparedness Network, allowing them to grow their emergency management programs

We appreciate your partnership and collaboration with our efforts to improve emergency preparedness in NYC. Working with other health care and emergency response agencies, such as yours, can help us continue to meet emergency management requirements and improve our response capacity.

Sincerely,

Marisa Raghael

Marisa Raphael, MPH Deputy Commissioner Office of Emergency Preparedness and Response New York City Department of Health and Mental Hygiene

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## Overview

The New York City Department of Health and Mental Hygiene (the Health Department) helps health care providers across the city respond safely and effectively in emergencies. As part of this mission, the Health Department:

- Promotes collaboration between health care providers and public health stakeholders to prioritize and address emergency preparedness and response gaps
- Ensures health care facilities have the tools and resources they need to care for their patients and residents during an emergency event
- Supports the New York City (NYC) health care system's ability to provide care and meet acute medical needs during and after emergencies

The Health Department uses five activities, called the Big Five, to improve emergency preparedness: Health care organizations first **assess** their hazards and risks. They then develop **plans** to address any gaps, **train** staff on those plans and ultimately **exercise** those plans to test their efficacy. All plans and responses rely on **communications and situational awareness**.

This report summarizes the Health Department's achievements in helping NYC health care facilities strengthen their ability to respond to emergency incidents in 2015 and 2016.





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worked with the Health Department's Pediatric Disaster Coalition to exercise their emergency plans.



92+6 nursing homes dult care facilities

increased their emergency management capabilities by participating in the Long-Term Care Emergency Management Program.



449 primary care sites

grew their emergency management programs by connecting to the Primary Care Emergency Preparedness Network.

- NYC hospitals planned, trained and conducted exercises for multiple hazards. They also successfully screened and isolated patients during mystery patient drills, or exercises where an actor posing as a patient with certain symptoms tests an established emergency preparedness process (pages 8-9).
- Of the NYC hospitals that provide pediatric services, **13** (54%) worked with the Health Department's Pediatric Disaster Coalition to exercise their emergency plans, which dramatically increase pediatric critical care communications and surge capacity (pages 10-11).
- ► Ninety-two nursing homes (54% of NYC nursing homes) and six adult care facilities (8% of NYC

adult care facilities) increased their emergency management capabilities by participating in the Long-Term Care Emergency Management Program (pages 14-15).

- More primary care sites than ever (449) grew their emergency management programs by connecting to the Primary Care Emergency Preparedness Network (pages 16-17).
- With funding from the Health Department, five borough-based health care coalitions and seven network health care coalitions planned, trained and conducted exercises with facilities from different health care sectors. The coalitions strengthened their emergency management programs by sharing best practices and identifying opportunities to work together (page 20).

The Health Department's health care system preparedness programs are primarily funded by the Assistant Secretary for Preparedness and Response (ASPR) Hospital Preparedness Program (HPP), with additional support from the Centers for Disease Control and Prevention's (CDC) Public Health Emergency Preparedness Program (PHEP).

To learn more about the Health Department's health care preparedness, visit **nyc.gov/health** and search "**hospitals.**"

# Hospitals

### Reaching NYC's Health Care System at Its Core

The Hospital Core Contract is the Health Department's largest funding program for health care system emergency preparedness.

Hospitals funded through the Core Contract completed 96% of the required preparedness activities.

### Training

Fifty-three hospitals conducted emergency event trainings. Among these, 18 hospitals trained staff on how to respond to an active shooter event.

### Medical Surge Planning

Thirty hospitals identified ways to improve their response protocols and scale up staff during various disaster scenarios, helping them avoid potential staffing shortages during a large-scale disaster.

### Equipment

 Hospitals identified ways to share equipment between off-site partner health care facilities and coalition member locations during disasters. Hospitals also purchased more than \$300,000 worth of critical equipment, including evacuation supplies.

### Design Your Own Activity

Eighteen hospitals completed activities to address gaps identified in their hazard vulnerability analyses, previous exercises or real-life events.

Торіс	No. of Hospitals
Incident Command System Training	4
Patient Influx/ Surge Capacity	3
Morgue Surge Capacity	2
Plain Language Notifications	2
Rehabilitation Units Evacuation	2
Active Shooter	2
Corrections/Prison System	1
Situational Awareness	1
Emergency Management Conference/ Community Fair	1



### Health Care Cybersecurity

The Health Department's Emergency Preparedness Symposia (EPS) is a series of meetings for NYC health care emergency management professionals. In fiscal year 2016, the EPS focused on improving cybersecurity in hospitals and other sectors. Forty-six hospitals reported having a cybersecurity plan in place by spring 2016; of these, 15 (33%) had tested their plans by fall 2015 and 34 (74%) had exercised them by spring 2016.

### **Information Sharing**

Fifty-four hospitals, 73 adult care facilities and 173 nursing homes updated their facility profiles in the Health Department's Health Facilities Directory (HFD). The HFD includes robust data on health care services and contact information for clinical and administrative departments. The Health Department uses the directory to communicate efficiently during routine and emergency operations.

### **Coalition Development**

With the help of the Health Department, 41 hospitals planned, trained and/or tested their emergency systems with at least three other health care organizations within their network or borough. These activities increased health care coalition capacity and improved NYC hospitals' ability to partner with other health care organizations before, during and after emergencies.

### Mystery Patient Drills

- Forty-nine of NYC's 911-receiving hospitals participated in two mystery patient drills between December 2015 and May 2016 for a total of 98 drills.
- Hospitals successfully masked and isolated the mystery patient during 81% of the drills.

Mystery Patient Drill Scenario	No. of Drills
Measles	52
Middle East Respiratory Syndrome (MERS)	43
Ebola	3

### **46** hospitals reported having a cybersecurity plan in place

by spring 2016; of these, 15 (33%) had tested their plans by fall 2015 and 34 (74%) had exercised them by spring 2016.



# Pediatric Preparedness

The New York City Pediatric Disaster Coalition (PDC), housed in Maimonides Medical Center, brings together hospitals, public health agencies, including the Health Department, municipal services and community groups to ensure effective use of critical assets during and after large-scale disasters affecting children.

### Health Care Facility-Specific Plans

- By June 30, 2016, PDC oversaw the development of surge and evacuation plans for 16 of the 24 (67%) pediatric intensive care unit (PICU) services in NYC.
- Between July 2015 and June 2016, PDC helped develop two neonatal intensive care unit (NICU) and two obstetric service surge and evacuation plans. NYC now has a total of nine NICUs and four obstetric services with facility-specific plans.
- With help from PDC, St. Mary's Hospital for Children completed surge and evacuation planning, the first ever such plan for a pediatric nursing home.

### **Citywide Plans**

PDC has worked with the Health Department, the Fire Department of New York City (FDNY) and NYC Emergency Management to improve the city's response to mass casualty incidents involving pediatric patients. In August 2015, a draft Pediatric Disaster Plan was shared with NYC hospitals.

 Twenty-nine hospitals agreed to become Pediatric Disaster Ambulance Destinations. PDC oversaw the development of surge and evacuation plans for

**67%** of PICU services in NYC.

### **Preparedness Exercises**

All NYC pediatric hospitals now have PDC's NICU and PICU Hospital Exercise Toolkit, which allows them to design and execute their own pediatric disaster exercises.

Staten Island University Hospital North used the toolkit to plan and carry out a workshop, tabletop exercise and full-scale PICU surge exercise.

To learn more about PDC, visit **pediatricdisastercoalition.org** 

NYC is home to approximately 1.8 million people under the age of 18 (21% of the total population). (Source: 2010-2014 American Community Survey 5-Year Estimates)

### The NYC health care system includes:

- 24 PICU services
- 39 NICU services
- 39 obstetric services

### Pediatric Surge Exercise

Thirteen hospitals tested their existing plans to rapidly increase capacity and provide pediatric care.

This exercise, conducted via a web-based application, tested internal and two-way communications, rapid patient discharge, staffing, surge space, triage and transfer elements of pediatric surge capacity plans.

Given the results of this exercise, it is estimated that the 13 participating hospitals have the capacity to care for an additional:

- 119 PICU patients (an approximate 80% increase in PICU capacity)
- ▶ 61 NICU patients
- 256 pediatric patients in emergency departments
- 82 pediatric patients requiring surgery, by making 82 operating rooms available











additonal NICU patients

255 additional pediatric patients in emergency departments

82 additional pediatric patients requiring surgery

# Ebola and Special Pathogens Preparedness

### NYC is better prepared for Ebola and other highly infectious diseases.

### The New York City Department of Health and Mental Hygiene

### Agency Concept of Operations

In 2015 and 2016, the Health Department drafted a Concept of Operations (ConOps) outlining the agency's response to a patient with confirmed or suspected Ebola in NYC. The document details every step in the care process, from who should be contacted when the patient is first identified to how to dispose of contaminated waste. The strategies outlined in the ConOps can guide the Health Department's response to other infectious disease outbreaks.

### Coordinated Development of Regional Transport Plan

 In coordination with other organizations and health departments, the Health Department drafted a plan to transport patients in Department of Health and Human Services (HHS) Region 2 (New York, New Jersey, Puerto Rico and the Virgin Islands) with confirmed Ebola from treatment centers to the region's Ebola and Other Special Pathogen Treatment Center.

### Three Designated Ebola Treatment Centers

Ebola treatment centers are hospitals prepared to receive, isolate and treat Ebola patients. NYC's three designated treatment centers—Mount Sinai, Montefiore and Bellevue—tested Ebola protocols during at least one functional or full-scale exercise. They also trained staff in personal protective equipment (PPE) use and maintained PPE and laboratory supplies to safely manage Ebola patients.

### One Regional Treatment Center: Bellevue

NYC Health + Hospitals/Bellevue is the Regional Ebola and Other Special Pathogen Treatment Center for HHS Region 2. Bellevue safely and successfully received, isolated and treated an Ebola patient in 2014. To prepare for similar incidents, Bellevue designed a negative-pressure procedure room and developed plans for a high-volume autoclave. Bellevue continues to ensure that staff are trained and competent in the safe care of Ebola patients.



### **Seven Hospital Networks**

NYC's seven hospital networks developed plans for an Ebola response and trained staff to execute these plans. They also participated in a network-level exercise with the FDNY, testing initial patient management and transport protocols.

### **First Responders**

The FDNY trained 3,601 members of the Emergency Medical Service (EMS) in transporting patients suspected of or confirmed with Ebola or another special pathogen, as well as in selecting and using proper PPE. The FDNY also participated in Health Department- and coalition-led Ebola exercises.

The Regional Emergency Medical Services Council of NYC (REMSCO) assessed infection control practices among NYC's non-municipal ambulance companies. REMSCO developed an infection control focused train-the-trainer curriculum and purchased PPE supplies. Increased access to PPE for non-municipal EMS providers will help prevent the transmission of highly infectious diseases. A plane carrying someone suspected of having Ebola lands at John F. Kennedy (JFK) International Airport.

### What happens next?

The Health Department oversaw an interagency tabletop exercise testing notification and response roles in the scenario that a person under investigation arrives at JFK Airport.

Participants included Bellevue, Jamaica Hospital Medical Center, the FDNY, the New York State Department of Health (NYS DOH), the CDC Quarantine Station at JFK, HHS Region 2, NYC Emergency Management and the Port Authority of New York and New Jersey.

The exercise clarified different agency roles and resulted in an updated notification and response algorithm that better aligns with interagency plans.

# Long-Term Care Facilities

NYC is home to 170 nursing homes and 78 adult care facilities. Of these, 64% participated in a Health Department program that allows them to better respond to emergency events.

### Long-Term Care Emergency Management Program

The Health Department offered the Long-Term Care Emergency Management Program (LTCEMP), a seven-month technical assistance program, for the third time in 2015 and 2016. Thirty-eight nursing homes and six adult care facilities participated in three day-long learning sessions. They also received bi-weekly coaching on all-hazard emergency management concepts and policy development.

As part of the LTCEMP, the facilities completed a tabletop exercise focused on a MERS outbreak in NYC. The exercise addressed challenges to sustaining operations, including the potential impacts on staffing and supplies. This tested the facilities' ability to make high-level decisions during an emergency response.

### Long-Term Care Exercise Program

Nineteen nursing homes (11% of all NYC nursing homes) participated in the 2016 Long-Term Care Exercise Program (LTCExP) Functional Exercise (Operation Nursing Home Exercise for Influenza Surge 2016). The facilities tested their ability to respond to a novel pandemic influenza strain infecting large numbers of people in the NYC metropolitan area. They activated their Emergency Operations Centers and identified areas for improvement in emergency operations coordination, information sharing and fatality management protocols. The exercise revealed planning gaps in the Health Department's use of their 700 MHz public safety radios, Evacuation of Facilities in Disaster Systems (e-FINDS) and fatality management protocols. These gaps have been addressed through new curriculum enhancements.

### Long-Term Care Continuity Planning Program

In 2015, the Health Department introduced the Long-Term Care Continuity Planning Program (LTCCPP). The LTCCPP aims to build resilience for long-term care facilities by enhancing their ability to sustain operations and resident care during a loss of external resources or other emergencies.

Nine facilities developed leadership expertise through two learning sessions, 36 individualized mentoring sessions, an Advanced Practicum Capstone session and three online surveys. Facilities will use the knowledge they gained to implement continuity planning programs.







The number of long-term care facilities participating in emergency management programs has increased since 2013.

### Emergency Radio Communication Program

Of the 248 nursing homes and adult care facilities in NYC, 96% now have a direct connection to NYC Emergency Management if all other methods of communication fail during a disaster. Each long-term care facility has a 700 MHz radio and staff members have attended in-person radio training at NYC Emergency Management.

### Webinars

- New York City nursing home trade associations hosted three emergency preparedness webinars. Topics included New York State e-FINDS, cybersecurity, active shooters, the Incident Command System, infectious diseases, the New York State Health Commerce System and data security.
- New York State adult care facility trade associations hosted four webinars covering data security and HIPAA, Legionella and other infectious diseases, the Incident Command System and the Health Commerce System.
- Webinar training increased knowledge of key emergency management topics among long-term care facility staff.

Of the **248** nursing homes and adult care facilities in NYC, **060** 

now have a direct radio connection to NYC Emergency Management.



# **Primary Care**

### TRAINING

### **Emergency Management Capacity**

In collaboration with the Primary Care Emergency Preparedness Network (PCEPN), the Health Department hosted a seminar for primary care providers about citywide planning and response roles. Sixty individuals representing 20 primary care networks attended. The seminar discussed volunteer resources such as the NYC Medical Reserve Corps, infectious disease preparedness, Points of Dispensing (PODs) and more. Participants received the following materials:

- Business continuity plan template
- Infectious disease plan template
- PCEPN coastal storm plan template
- Community Health Care Association of New York State (CHCANYS) emergency management plan template

### **Business Continuity**

Seventy-five percent of primary care networks participated in a site-specific business continuity plan workshop. They learned how to improve their facility's ability to sustain operations during disasters and provide care to NYC's most vulnerable populations.

### **Respirator Fit Testing**

Twenty-three people attended a webinar and workshop on the Respiratory Protection Toolkit developed for the primary care sector. Participants also learned how to properly select and use PPE.



**75%** of primary care networks participated in a site-specific business continuity plan workshop.



### **Personal Protective Equipment (PPE)**

The Health Department hosted five training sessions on the proper use of PPE, which will help prevent the spread of infectious diseases. Fifty-one providers representing 25 primary care networks attended the sessions.

### **EXERCISES**

### **Screening and Isolation**

Fifteen primary care networks participated in mystery patient drills, increasing participants' ability to successfully identify, screen and isolate patients and notify the Health Department.

### Communications

PCEPN sent notifications via a web-based platform to test 45 primary care networks' ability to respond. This exercise demonstrated the need to enhance communications between the primary care sector and external partners, such as the Health Department.

### **Bio-Events**

Ten primary care networks participated in a tabletop exercise about risk communication, application of reportable disease protocols, business continuity, IT failure and patient surge.

### The Primary Care Emergency Preparedness Network (PCEPN)

Formed in 2009, PCEPN is a coalition of primary care providers within NYC. PCEPN's mission is to increase the NYC primary care community's ability to prepare for, respond to and recover from disasters. PCEPN connects the larger NYC health care community to local government agencies.

This connection ensures primary care is represented in citywide planning and response, and enhances health system preparedness.

PCEPN membership increased from 43 networks (representing 297 sites) in mid-2015 to 45 networks (representing 449 sites) in mid-2016.

To learn more about PCEPN, visit pcepn.org

# **Dialysis Centers**

### **Information Sharing**

All 10 dialysis centers from hurricane evacuation zones 1 and 2 (NYC areas with the highest risk of storm surge impact) participated in an information-sharing exercise using the Sustainable Planner Situation Status tool. This web-based tool helps staff coordinate resources and manage patients during a disaster. It also allows centers to share real-time situational awareness updates with the Island Peer Review Organization (IPRO) and the Emergency Support Function-8 (ESF-8) Health and Medical desk at the City's Emergency Operations Center.

### **Dialysis Patient Personal Preparedness**

The Northern Manhattan Health Care Emergency Liaison Partnership (North HELP, which is funded by the Health Department) produced a personal preparedness instructional DVD for dialysis patients in English, Spanish, Haitian Creole, Russian, Korean and Mandarin. One hundred and eleven dialysis centers (100% of centers in NYC at the time) offered the DVD to their patients.

### **Patient Education Outreach**

NYC Medical Reserve Corps volunteers provided in-person disaster preparedness training to 300 dialysis patients at eight dialysis centers.

"None of the three [patients I spoke with] had medical alert bracelets. I believe I was able to raise their awareness about the importance of wearing one... Materials were helpful in that they provided a framework from which to introduce emergency preparedness information to patients."

### - Linda R., Medical Reserve Corps volunteer

ШП

### Mapping Dialysis Centers

The Health Department and NYC Emergency Management mapped dialysis centers by borough, hurricane evacuation zone and network affiliation. The maps are available for use by the IPRO representative at the ESF-8 desk during a citywide emergency.

### North HELP Membership Expansion

North HELP supports emergency management and operations continuity for providers serving vulnerable populations during emergencies. North HELP membership expanded from 38 dialysis centers (34% of centers in NYC at the time) in 2015 to 60 dialysis centers (54%) in 2016.

### **Dialysis Center Involvement**



# The NYC Health Care Coalition

### Health Care Coalitions in NYC

Since 2012, numerous health care and non-health care partners throughout NYC have formed health care coalitions, which significantly improve NYC's health care preparedness and resilience. The Health Department funds the coalitions, facilitates communication between members, and supports local and citywide exercises. NYC has the following health care coalitions:

#### Seven network coalitions

Network coalitions support the development of health care emergency management programs, across facility types and within growing health systems. They promote current trends in health care delivery and ensure emergency preparedness capacity-building in all sectors of each system.

#### Five borough coalitions

Borough coalitions include health care and non-health care facilities and organizations within each NYC borough. Borough Coalition members collaborate to develop preparedness capabilities, including assessment, planning, communications and situational awareness, training and exercises.

#### Three subject matter

expertise (SME) coalitions

SME coalitions are groups with extensive experience in and knowledge of a particular health care service area or sector. SME coalitions help their members, other health care coalitions and providers improve their emergency preparedness capabilities to support the sectors they represent.



### The NYC Health Care Coalition (NYCHCC)

NYCHCC is made up of leadership from NYC's borough and network coalitions, as well as leadership from the Health Department, nursing home and adult care facility trade associations, Greater New York Hospital Association (GNYHA), NYC Emergency Management, FDNY EMS and North HELP and PDC.

NYCHCC helps foster relationships between facilities and provides opportunities to practice coordination, collaboration and communication in non-emergency situations.

Health care coalition representatives convene at NYCHCC Leadership Council meetings to share best practices. The meetings promote adherence to a growing set of planning assumptions and ensure that all coalitions benefit from practices that work. From 2015 to 2016, all network and borough coalitions developed a three-year strategic plan to help them achieve their long-term goals.

### Coalitions at Work from 2015 to 2016

- Mount Sinai Health System Emergency Management Partnership (MSHSEMP) categorized patient care and other facilities according to their ability to support operations during an emergency response. MSHSEMP's managers use this assessment to scale participation from network partners up or down.
- ▶ New York-Presbyterian Regional Hospital Network updated mutual aid agreements among all members across the system.
- The Social Work Disaster Response Team, part of the Bronx Emergency Preparedness Coalition, designed and implemented guidelines for a comprehensive Staff Support Center, a social work-led structure that supports staff emotionally and practically during an extended disaster response, ensuring continuity of operations. The guidelines include all materials needed to activate and run a center.
- The Brooklyn Coalition conducted an exercise applying the NYC Burn Mass Casualty Incident Protocol to a multiple explosion scenario occurring in Brooklyn. The Health Department and the Brooklyn Coalition recruited NYC agencies and facilities outside Brooklyn to participate in the coalition exercise. Eleven Brooklyn hospitals, three long-term care facilities and two regional burn centers participated, along with New York City Emergency Management, NYS DOH, NYS e-FINDS, REMSCO, GNYHA and FDNY EMS.
- The Staten Island Community Organizations Active in Disaster conducted a call-down notification drill, or a drill where one person calls the next to relay information, to assess communication among health care and non-health care members of the coalition.

# Health Care Preparedness at the System Level

### New York City Health and Medical Executive Advisory Group

To prioritize NYC health and medical preparedness planning initiatives and response efforts, six health and medical agency partners created the New York City Health and Medical Executive Advisory Group (HMExec).

- Mission: In coordination with other ESF-8 agencies and NYC health system partners, HMExec advises and informs agency and incident response leadership as a unified voice on health and medical issues.
- Membership: HMExec is comprised of emergency planning and operations leaders from the Health Department, FDNY, GNYHA, NYC Health + Hospitals, NYC Emergency Management and NYS DOH.

### **Patient Movement Workgroup**

The Health Department and GNYHA co-chaired a workgroup to address challenges with large-scale evacuations of hospital patients.

The workgroup has:

- Recommended additions to transfer forms to ensure clinical and demographic information is transported with patients.
- Developed a Medical Record Access worksheet to increase access to medical records for sending and receiving hospitals.
- Drafted standardized bed definitions to match patients to appropriate bed types.
- Drafted a Disaster Credentialing Guidance Document and complementary toolkit.



# Continuing Our Mission

- The Health Department is working with health care delivery system and city agency emergency response stakeholders to develop a guide that outlines roles and responsibilities during preparedness, response and recovery.
- This guide will inform the planning and development of HPP funded activities in fiscal year 2017 and beyond.
- The following funding changes will take place in fiscal year 2018:
  - Hospitals that are members of network coalitions will be funded through their networks, rather than directly through the Core Contract.
  - Independent hospitals will still be funded directly.
  - The Health Department will continue to develop the NYC Health Care Coalition, bringing together health care coalition leadership and preparedness and response agencies and organizations in NYC.

The NYC health care system has increased its ability to respond to emergency events thanks to the dedication and persistence of stakeholders. Before, during and after emergencies, the Health Department is working to ensure the best outcomes for all New Yorkers.

We would like to thank all of our partners for their persistent work to improve emergency preparedness.

For more information, visit nyc.gov/health and search hospitals or email EmergencyPrep@health.nyc.gov

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