

# **NYC HEALTH CARE COALITION (NYCHCC) LEADERSHIP COUNCIL MEETING**

**NYC DOHMH EMERGENCY PREPAREDNESS AND RESPONSE  
BUREAU OF HEALTHCARE SYSTEM READINESS**

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**Wednesday, December 13, 2017**



# WELCOME!

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# Morning Agenda

<b>8:30 – 9:00 AM</b>	<b><i>Registration and Networking</i></b>
<b>9:00 – 9:15 AM</b>	<b><i>Welcome and National Health Care Coalition Conference Update</i></b> William Lang, Director, Hospitals and Coalitions, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene
<b>9:15 – 9:25 AM</b>	<b><i>Opening Remarks</i></b> Celia Quinn, Executive Director, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene
<b>9:25 – 9:40 AM</b>	<b><i>NYCHCC Charter Workshop Report Out / Next Steps</i></b> William Lang, Director, Hospitals and Coalitions, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene Aaron Belisle, Acting Director, Emergency Planning Unit, NYC Department of Health and Mental Hygiene Darrin Pruitt, Deputy Director, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene
<b>9:40 – 10:00 AM</b>	<b><i>Citywide Surge Exercise - Update</i></b> Marie Irvine, Emergency Response Coordinator, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene
<b>10:00 – 11:00 AM</b>	<b><i>Regional Resiliency Assessment Program (RRAP)</i></b> Department of Homeland Security
<b>11:00 – 11:15 PM</b>	<b><i>Networking Break</i></b>
<b>11:15 – 11:45 AM</b>	<b><i>NYC DOHMH's EmPower Project</i></b> Tamer Hadi, Director of Strategic Technology, NYC Department of Health and Mental Hygiene

# Afternoon Agenda

11:45 – 12:15 PM	<b><i>Clinical - Emerging Diseases, What's on the Radar</i></b> Mary Foote, Senior Medical Coordinator for Communicable Disease Preparedness, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene
12:15 – 12:45 PM	<b><i>Lunch</i></b>
12:45 – 1:00 PM	<b><i>Planning Considerations for Budgetary Period 2 (BP2)</i></b> Darrin Pruitt, Deputy Director, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene
1:00 – 1:45 PM	<b><i>Brainstorming: BP2 Deliverables for Borough Coalitions</i></b>
1:45 – 2:00 PM	<b><i>Brainstorming: Report Out</i></b>
2:00 – 2:30 PM	<b><i>HVA Updates and Jurisdictional Risk Assessment</i></b> Shadrzad Kardooni, Preventive Medicine Resident, NYC Department of Health and Mental Hygiene Francoise Pickart, Senior Risk Analyst, Agency Preparedness & Response, NYC Department of Health and Mental Hygiene
2:30 – 2:40 PM	<b><i>Networking Break</i></b>
2:40 – 3:40 PM	<b><i>Puerto Rico Updates w/ Q&amp;A</i></b> Nancy Pagan, RPAC, MPA-S, New York Presbyterian – Weill Cornell Emergency Department Timothy Styles, Medical Director, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene
3:40 – 3:50 PM	<b><i>Member Announcements &amp; Invitations to Upcoming Events</i></b>
3:50 – 4:00 PM	<b><i>Concluding Remarks</i></b>

# OPENING REMARKS

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**Celia Quinn**, Executive Director, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene

# NYCHCC CHARTER: UPDATE / NEXT STEPS

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**William Lang**, Director, Hospitals and Coalitions, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene

**Aaron Belisle**, Acting Director, Emergency Planning Unit, NYC Department of Health and Mental Hygiene

**Darrin Pruitt**, Deputy Director, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene

# HEALTHCARE COALITION PREPAREDNESS PLAN

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BP1 HPP Requirement

**Darrin Pruitt**, Deputy Director, Bureau of Healthcare System Readiness,  
NYC Department of Health and Mental Hygiene

# HPP requires...

## □ Content

- HCC structure, member guidelines for participation and engagement, policies & procedures, integration within existing state, local, and member-specific incident management, specific roles for members
- Member priorities based on HVA, complement facility planning, strategic & operational objectives
- Information sharing, coordination and resources during emergencies, recovery plan
- Much is contained already in the Charter

## □ Input

- representation rate of HCC core (acute care, EMS, EM, Public Health)
- % of HCCs completing and approving the plan



# We plan to meet the requirements by...

- Leveraging information gathered for the Healthcare System Playbook
- Leveraging the content of the HCC charter
- Developing mechanism (checklist) for proposed activities, methods for reporting progress, processes for accountability and completion
- Completing template provided by HPP

# We need your involvement specifically...

- Review and approval of the plan before June, 2018
  
- Annual review and/or after coalition exercises or real events
  
- Next Steps
  - DOHMH drafts plan, provides for your review
  - All HCC members get a copy of the plan
  - Begin preparing to submit the coalition response plan due at the end of BP2

**THANK YOU!**

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# CITYWIDE SURGE EXERCISE - UPDATE

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**Marie Irvine**, Emergency Response Coordinator, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene

# What is SurgeEx?

- The Department of Health and Human Services Office of the Assistant Secretary for Preparedness and Response (HHS APSR) designed the exercise to help Health Care Coalitions **identify gaps in surge and response readiness through a low- to no-notice exercise.**
- The exercise is a required **annual deliverable** for all HHS ASPR Hospital Preparedness Program Awardees 2017-2020 – 8 associated ASPR HPP Performance Metrics. Current Budget Period 1 sets a baseline metric
- The exercise was piloted in South Dakota, Texas, Michigan, and Wyoming.



# SurgeEx (cont.)

- ❑ The exercise scenario (TBD) is expected to simulated evacuation of at least **20% of the acute care beds in a healthcare coalition.**
  - HHS ASPR and DOHMH consider NYC one single coalition comprised of a number of networks and independent facilities
- ❑ **Low- to no-notice functional exercise.**
- ❑ **Designed to be challenging.**
- ❑ **Intended to improve health care system response readiness.**
- ❑ **Intended to test the overall health care system response.**
- ❑ **Work in progress**

# SurgeEx



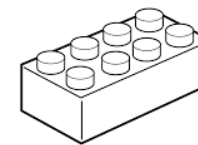
## □ SurgeEx 2018

- Baseline
- Major Gaps
- Focus on Acute Care Sector

## □ SurgeEx 2019

- Adding other sectors (Nursing Homes, Primary Care...)
- Address Gaps Specifically
- Added SurgeEx deliverables to support development of surge capacity

# SurgeEx Elements



	Element	Participants	Time/Date	Outcome
1	Functional Exercise (FE)	<ul style="list-style-type: none"><li>• 55 hospitals (sending and receiving)</li><li>• 7 Networks</li><li>• City/State Agencies</li></ul>	<ul style="list-style-type: none"><li>• <b><u>First Two Weeks of April 2018</u></b></li><li>• 150 min. (2.5 h)</li><li>• At facilities/network locations</li></ul>	<ul style="list-style-type: none"><li>• Sending, receiving and bed matching data (quantitative)</li></ul>
2	Facilitated Discussion + Hotwash	<ul style="list-style-type: none"><li>• 55 hospitals (incl. independents)</li><li>• 7 Networks</li><li>• City/State Agencies</li></ul>	<ul style="list-style-type: none"><li>• <b><u>May 8<sup>th</sup>, 2018</u></b></li><li>• 180-min. (1.5h) + 30-minute Hotwash</li><li>• At combined EPS/LCM</li></ul>	<ul style="list-style-type: none"><li>• Identify gaps/issues in surge capacity (qualitative)</li></ul>





# Proposed Exercise Objectives

Functional Exercise (FE) Objectives: (April 2018)

- ❑ By the end of the exercise, participating evacuating hospitals will have assessed their ability to **identify patients for rapid discharge** within 60 minutes of exercise notification.
- ❑ By the end of the exercise, participating networks and facilities will have assessed their ability to **conduct bed-matching of evacuating patients** within 90 and 180 minutes of STARTEX.
- ❑ By the end of the exercise, participating evacuating hospitals will have assessed their ability to **identify transportation assets** within 90 and 180 minutes of STARTEX.

Facilitated Discussion Objective(s): (May 8<sup>th</sup>, 2018)

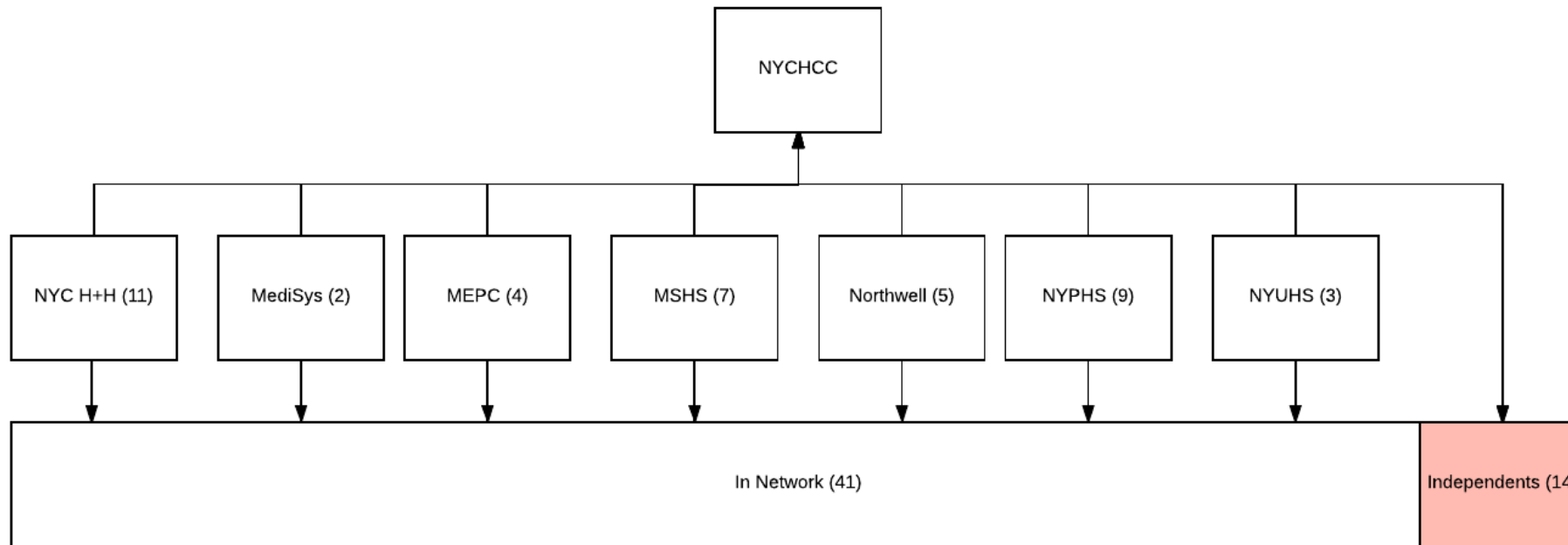
- ❑ By the end of the exercise, the NYC HCC, including city agencies, partner organizations and participating networks and facilities will have discussed strengths and weaknesses in NYC's healthcare system's ability to surge 20%+ in response to an incident requiring mass-evacuation of acute care facilities, incl. capabilities such as **rapid discharge, bed matching, transportation assets and coordination/communications**.



# SurgeEx Deliverables

1. Identify Trusted Agent (controller) (Network + Facility)
2. Quantitative Data (FE)
  - Collected through SitStat at 90 + 180 minutes
3. Quantitative Data
  - Collected through SitStat at 90 + 180 minutes (FE)
  - Collected at Facilitated Discussion (May 8<sup>th</sup>)
  - Collected through “Key Strengths and Weaknesses” template, to be provided by DOHMH

# SurgeEx FE C/E Staffing



Network-Level:

- 1 Trusted Agent
- 1 Evaluator
- Players

Facility-Level:

- 1 Trusted Agent
- 1 Evaluator\*
- Players

All Networks + Facilities are required to provide one (1) trusted agent who will function as a controller on the day of the functional exercise (FE)

\*evacuating facilities, receiving TBD

# Scenario 2018: Coastal Storm



## Hurricane William

# THANK YOU!

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**Marie Irvine**

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# REGIONAL RESILIENCY ASSESSMENT PROGRAM (RRAP)

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U. S. DEPARTMENT OF HOMELAND SECURITY

# NETWORKING BREAK

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# NYC DOHMH'S EMPOWER PROJECT

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**Tamer Hadi**, Director of Strategic Technology, NYC Department of Health and Mental Hygiene





**HHS emPOWER Initiative**



***CMS***

*CENTERS for MEDICARE & MEDICAID SERVICES*

**ASPR**

ASSISTANT SECRETARY FOR  
PREPAREDNESS AND RESPONSE

# Using Medicare Data to Communicate with Electricity-Dependent Durable Medical Equipment Users and Dialysis Patients in NYC

**Tamer Hadi**

*Director of Strategic Technology*

Office of Emergency Preparedness and Response  
NYC Department of Health and Mental Hygiene

# What is the emPOWER Initiative?

- ❑ Partnership between CMS and ASPR
- ❑ Medicare billing data to provide public health jurisdictions better understanding of their at-risk populations who rely on electricity-dependent medical devices and dialysis
- ❑ Data contains information on:
  - *Durable Medical Equipment* (ventilator, O<sub>2</sub> concentrator, cardiac devices, wheel chair, etc.)
  - *Dialysis Patients*
  - *Home Health Services*

## 2 DATA SETS

### De-Identified Data Set

Emergency Planning  
De-Identified Database

### Identified Data Set

Emergency Response  
Outreach Dataset

# Publicly available vs Emergency Planning De-Identified data sets

- Publicly available: total electricity-dependent
  - Found on ASPR's website
- Available to local health and partners for emergency planning: aggregate data by medical equipment type
  - Shared with local health for approved data uses
  - Updated 1-2 times per year

# Publicly Available Data Set

## Emergency Planning De-Identified Database

<https://empowermap.hhs.gov/>

Select map attributes to display data

**NATURAL HAZARDS**

**REGION FOR HEALTH DATA**

**MAP STYLE**

[Reset Map](#)

Medicare Data Totals		Electricity-Dependent Scale		Natural Hazard Legend	
Geographical Area:	Kings	<span style="display: inline-block; width: 15px; height: 15px; background-color: #f0e68c; border: 1px solid black;"></span> 0 - 0		<span style="display: inline-block; width: 15px; height: 15px; background-color: #f0e68c; border: 1px solid black;"></span> 30% or Less Chance	
Beneficiaries:	315,085	<span style="display: inline-block; width: 15px; height: 15px; background-color: #c4a83d; border: 1px solid black;"></span> 1 - 126		<span style="display: inline-block; width: 15px; height: 15px; background-color: #c4a83d; border: 1px solid black;"></span> 40%-60% Chance	
Electricity-Dependent Beneficiaries:	7,556	<span style="display: inline-block; width: 15px; height: 15px; background-color: #8b6914; border: 1px solid black;"></span> 127 - 228		<span style="display: inline-block; width: 15px; height: 15px; background-color: #8b6914; border: 1px solid black;"></span> 70% or Greater Chance	
		<span style="display: inline-block; width: 15px; height: 15px; background-color: #5d3d1b; border: 1px solid black;"></span> 229 - 394		<span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; border-radius: 50%;"></span> Post-Tropical Cyclone	
		<span style="display: inline-block; width: 15px; height: 15px; background-color: #3d2d1b; border: 1px solid black;"></span> 395 - 1,128		<span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; border-radius: 50%;"></span> Tropical Cyclone	
				<span style="display: inline-block; width: 15px; height: 15px; border-bottom: 2px solid black;"></span> 72	
				<span style="display: inline-block; width: 15px; height: 15px; border-bottom: 2px dashed black;"></span> 120	
				<span style="display: inline-block; width: 15px; height: 15px; background-color: #f08080; border: 1px solid black;"></span> Day 1-3	

# Emergency Planning Data Set Fine Print

Purpose: enhance situational awareness of and support emergency planning for at-risk individuals that rely on select durable medical equipment (DME)

# Emergency Planning Data Set Fine Print

- Data Source:
- Medicare Fee For Service (FFS) Part A and B beneficiary administrative claims data (~32M 65+, blind, ESRD (dialysis), dual-eligible, disabled-can include adults and children)
- Medicare Advantage claims data (~17M 65+, blind, ESRD (dialysis), dual-eligible, disabled-can include adults and children)
- Data does **NOT** include individuals that are only enrolled in a State Medicaid Program
- Medicare DME are subject to insurance claim reimbursement caps (e.g. rental caps) that differ by type and therefore may have a different “look-back” periods (e.g. ventilators are 13 months and oxygen concentrators are 36 months)
- Information provided in Menu and Data Overview tabs of the workbook

# Emergency Planning Data Set Fine Print

## Approved Data Uses:

The de-identified dataset is approved for use by the state/territory and local health department, either directly or in collaboration with their ESF-8, 6, 14 or other partners as appropriate, for public health emergency response, preparedness/mitigation, recovery and resilience activities. All other potential uses of this data require prior approval from ASPR and CMS.

# Emergency Planning Data Set Fine Print

## Privacy Protections:

As Medicare beneficiary privacy protection is our priority, all personal identifiable information has been removed from this dataset and numerous de-identified methods have been applied to significantly minimize, if not completely mitigate, any potential for deduction of small cells or re-identification risk. For example, any cell size found between the range of 1 and 10 is masked and shown as 11.



# Using the De-Identified Data Set for Planning

□ New ASPR requirement for Healthcare Coalitions to:

- *“obtain de-identified data from emPOWER map every six months to identify populations with unique health care needs”*
- *coordinate with ESF-8 for medical planning and transportation of these populations*

□ DOHMH, FDNY EMS, and NYCEM are working together to plan how to use the emPOWER data during an evacuation

# De-Identified / Aggregate Data

## Medicare Beneficiaries & Electricity-Dependence

### United States

Geographical Area:	U.S.
Beneficiaries:	52,338,023
Electricity-Dependent Beneficiaries:	2,469,694



### New York State

Geographical Area:	New York
Beneficiaries:	3,096,141
Electricity-Dependent Beneficiaries:	104,971

## NYC

### Manhattan

Geographical Area:	New York
Beneficiaries:	239,418
Electricity-Dependent Beneficiaries:	5,141

### Bronx

Geographical Area:	Bronx
Beneficiaries:	175,260
Electricity-Dependent Beneficiaries:	3,526

### Queens

Geographical Area:	Queens
Beneficiaries:	298,798
Electricity-Dependent Beneficiaries:	6,097

### Brooklyn

Geographical Area:	Kings
Beneficiaries:	315,085
Electricity-Dependent Beneficiaries:	7,556

### Staten Island

Geographical Area:	Richmond
Beneficiaries:	75,697
Electricity-Dependent Beneficiaries:	1,712

**Total NYC Medicare Beneficiaries = 1.2 M**

**Total Electricity-Dependent Beneficiaries = 24,032**

# Types of Durable Medical Equipment (DME)

## NYC Breakdown

# In-Facility ESRD Dialysis	# O2 Services [Tanks]	# Home Health
10,008	7,512	22,425

# Cardiac Devices	# Ventilators	# BiPAPs	# O2 Concentrators	# Enteral Feeding
1,454	1,922	781	13,259	2,313

# IV Infusion Pumps	# Suction Pumps	# At-Home ESRD Dialysis	# Motorized Wheelchairs or Scooters	# Electric Beds
1,880	1,551	1,364	2,014	8,020

\*\*\* Note: Stats slightly inflated due to zip code masking \*\*\*

# Identified Outreach Data

## *How is DOHMH Going to Use the Data?*

- 1) Request Individualized Data from ASPR
  - *Name, DOB, Address, Devices Used*
- 2) Add NYC Hurricane Evacuation Zones
  - *Determine which zones we want to message*
- 3) Reverse Phone Look-Up (Vendor)
  - *Obtain landlines and cell phones (\*\*cost involved\*\*)*
- 4) Provide Ventilator Patient Data to FDNY EMS
- 5) Disseminate voice and text messages using DOHMH Emergency Notification System
  - *72-96 hours out*
  - *24-48 hours out*
  - *Within 24 hours after storm passes*

# What Are We Going to Say?

## *Short, Effective Messages*

### ☐ **72-96 hours out – Preparedness Focus**

- Make arrangements now to relocate, prepare go-bag, batteries/backups, get dialysis treatment
- Refer to website with detailed preparedness tips

### ☐ **24-48 hours out – Evacuation/Sheltering Focus**

- Advise on mandatory evacuation, relocate now or call 311 for assistance, items to bring, 311 for nearest evac center
- Refer to website with detailed preparedness tips

### ☐ **After storm passes – Safety Check**

- Call 311 for evacuation assistance
- Call 911 for life-threatening emergencies



# FDNY EMS Role



- FDNY EMS is going to message and offer evacuation assistance to all Ventilator patients in potentially affected coastal storm zones



# Challenges

- ❑ *Turnaround time for requesting data / phone number lookup*
- ❑ *Data Security*
- ❑ *How to use for no-notice events*

# Next Steps

- ❑ Data Drill to test entire process
- ❑ Larger exercise w/ FDNY EMS drilling vent patient evacuations
- ❑ National Work Group – ASPR advised that a work group will be formed for jurisdictions to share best practices.

# Questions & Discussion

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**Tamer Hadi**

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# CLINICAL - EMERGING DISEASES, *WHAT'S ON THE RADAR*

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**Mary Foote**, Senior Medical Coordinator for Communicable Disease Preparedness, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene



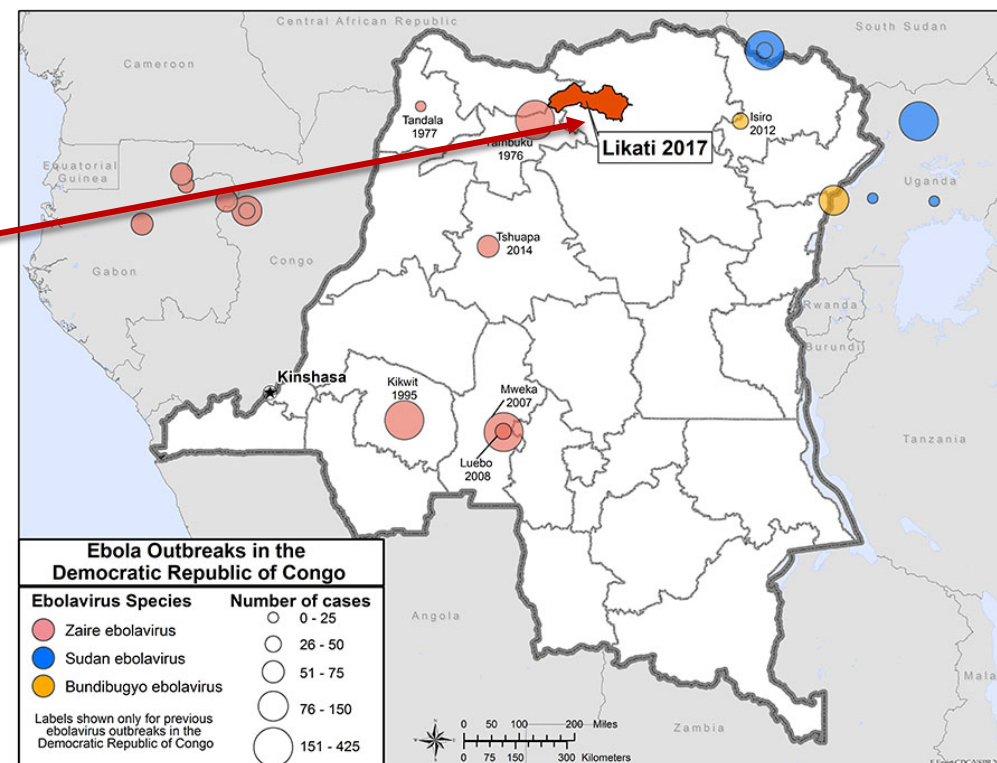
# What's on our radar?

**INFECTIOUS DISEASE OUTLOOK 2017-2018**

# 2017 Review: Ebola

## Democratic Republic of the Congo (May—July)

- ▶ May 11, 2017, DRC reported a cluster of suspected EVD cases in remote Likati zone
- ▶ Within days, international teams had arrived to support response and testing
- ▶ Mobile lab established for diagnoses
- ▶ Cases = 8 likely, 5 confirmed
  - ▶ Deaths = 4



The map shows the country of Democratic Republic of Congo, located in Central Africa, and indicates outbreaks of Ebola that have happened there.

# 2017 Review: Pneumonic Plague

## Madagascar (August—November)

- ▶ Spread by exposure to infected rats/fleas (bubonic) or through respiratory droplets (pneumonic)
- ▶ Outbreak unusual due to scale, urban spread, predominance pneumonic form
- ▶ >700 contacts identified and prophylaxed



Source: WHO

## FACTS ABOUT plague

Plague is an infectious disease that can become severe if left untreated. If diagnosed early, plague can be cured with antibiotics and supportive care.



Plague is **caused by a bacteria** usually found in small mammals and their fleas



People infected with plague usually have "flu-like" **symptoms** within 1-7 days of contact



Early **diagnosis and treatment** are essential - the fatality rate is 30-100% if left untreated

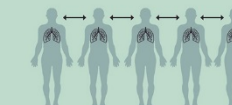


### Bubonic



The most common type of plague affects the lymph nodes. It can be severe, but there is no human to human transmission.

### Pneumonic



The deadliest and most rapid form of plague occurs when it reaches the lungs. It can be transmitted person to person via droplets in the air.

### Middle ages ▶▶▶▶

Plague, known as the "Black Death" in 1400s, caused an estimated...

**50 million deaths in Europe**

### Modern era ▶▶▶▶

Between 2010 - 2015, 3248 people were infected with plague worldwide... **584 died**



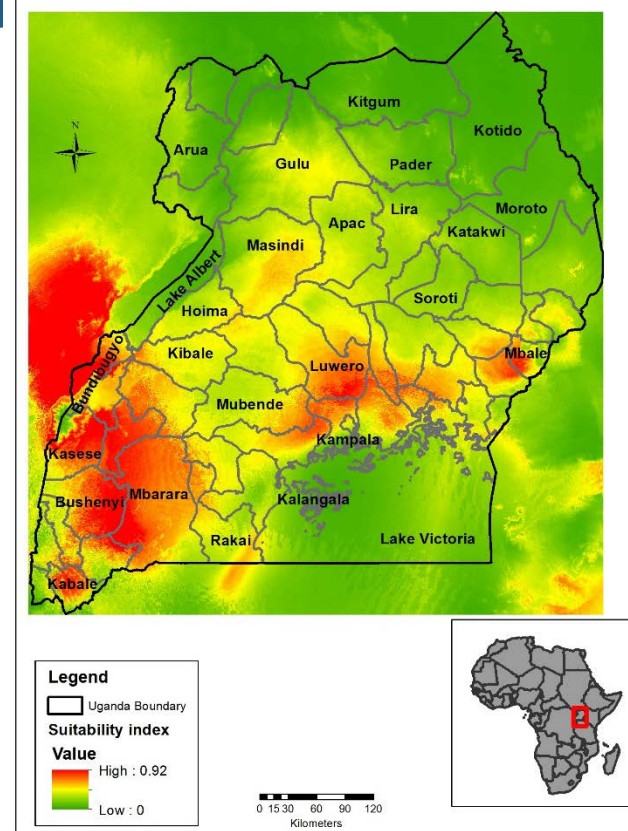
**Plague is most common in** Madagascar, Democratic Republic of the Congo and Peru. However, the potential plague natural foci are distributed worldwide.

# 2017 Review: Marburg



## Uganda and Kenya (October—December)

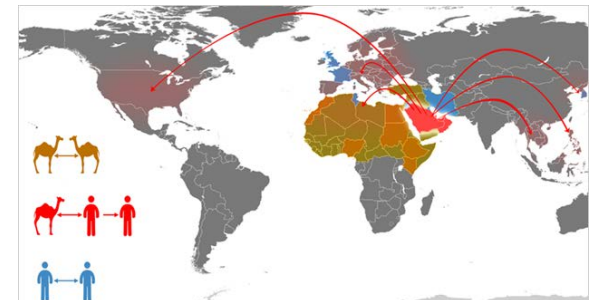
- ▶ October 17<sup>th</sup>, 2017 Ugandan notified WHO of an outbreak of Marburg Virus Disease in remote mountainous area
  - ▶ Marburg is a close cousin to Ebola
- ▶ 1<sup>st</sup> case was hunter with likely exposure to bat caves
  - ▶ 2 additional cases in same family, one traveled to Kenya when ill
- ▶ Rapid national and international response
  - ▶ Intense contact tracing
  - ▶ Mobile lab services (CDC/EU)
  - ▶ Healthcare worker safety support through **IC messaging** and **PPE kit distribution**
  - ▶ coordination between Uganda and Kenya to improve surveillance



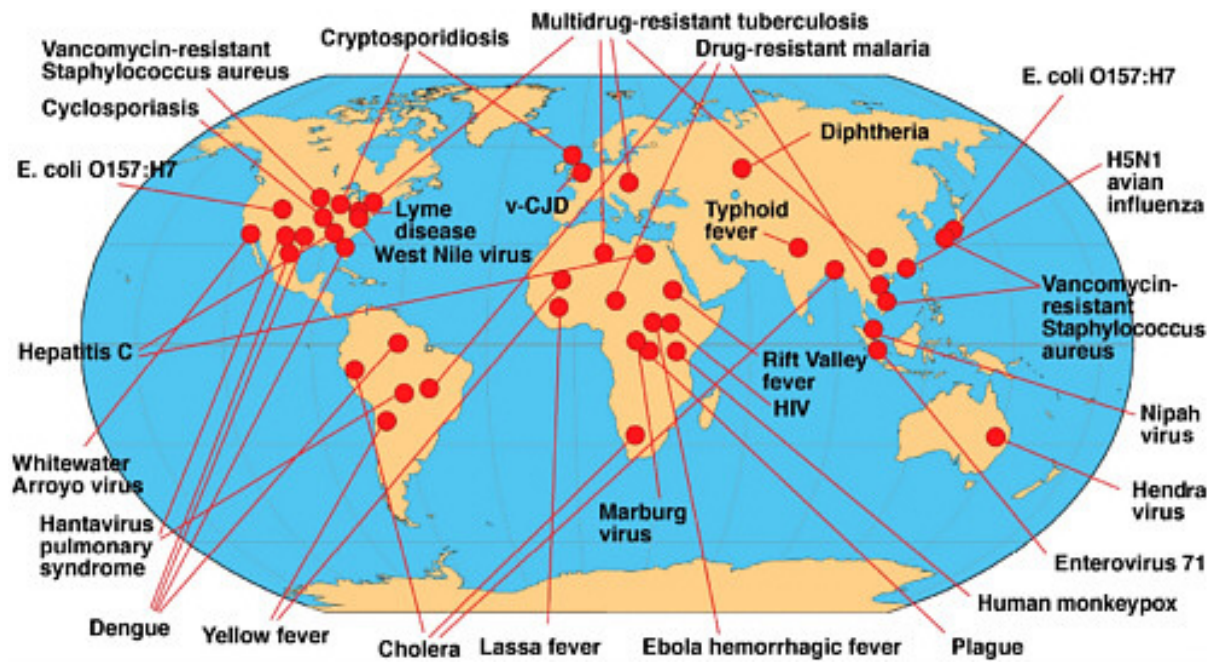
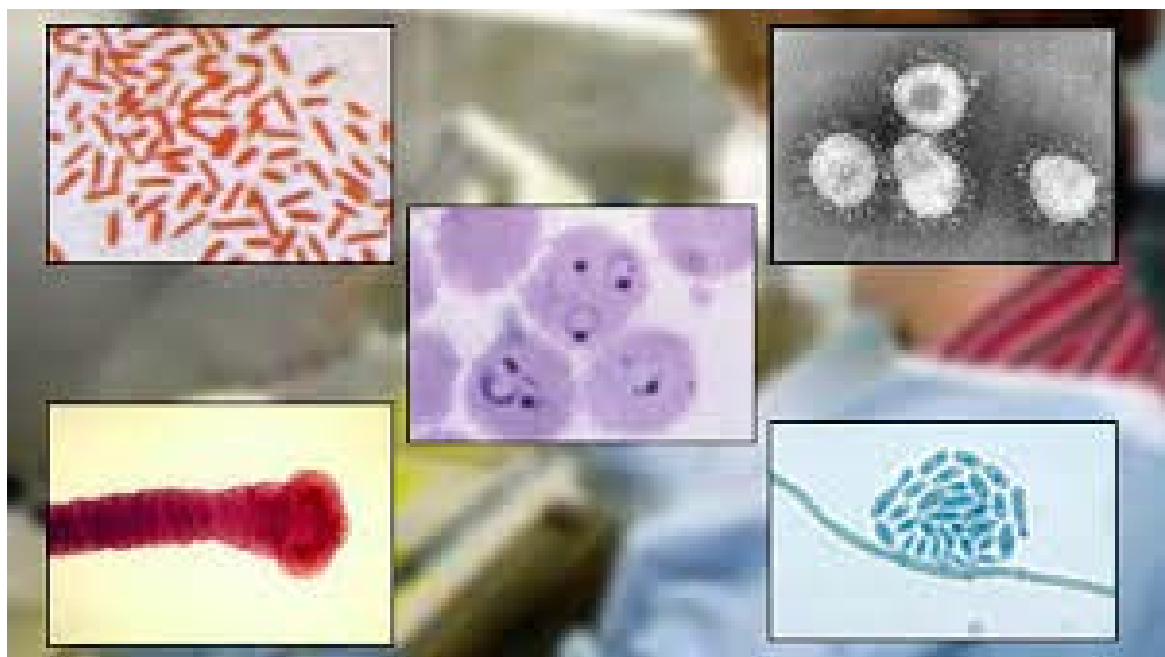
Map showing areas of the relative probability of the presence of filovirus (Ebola and Marburg virus) outbreak in Uganda. (Nyakarahuka, PLOS Currents Outbreaks, 2017)

# Updates: MERS-CoV

- ▶ As of May 2017
  - ▶ 1980 laboratory-confirmed cases
  - ▶ 720 deaths (case–fatality rate: 36.4%) were reported globally
- ▶ April—May → KSA had 3 hospital outbreaks in/around Riyadh
  - ▶ 13 cases, 3 deaths
- ▶ Improved infection control practices have greatly reduced healthcare associated cases



# What's on Our Radar for 2018 and beyond?



# Avian Influenza Viruses (“Bird-flus”)



- ▶ Four types of influenza viruses identified to date (A, B, C, D)
  - ▶ A and B types cause “seasonal influenza”, **only type A causes pandemics**
- ▶ Most ‘flu As’ are from **birds (waterfowl)** but can also infect pigs
- ▶ Avian influenza A viruses are classified based on molecular and pathogenicity criteria
  - ▶ **Low pathogenic avian influenza A viruses (LPAI)**
  - ▶ **Highly pathogenic avian influenza (HPAI)**
- ▶ Either type can cause severe disease in humans
- ▶ Novel influenza A virus infection
  - ▶ Human infection with an influenza A virus that is antigenically and genetically distinct from current seasonal influenza A viruses → Usually from direct or close contact with an infected bird or pig



# Highly Pathogenic Avian Influenza A (H5N1) Virus

- **First human infections identified in 1997**
  - 18 human cases, 6 deaths
- **Re-emergence in 2003**
  - Family cluster visited southern China (2 deaths)
- **Wide-spread poultry outbreaks and wild bird die-offs in >60 countries 2005-2006**
- **6 countries considered endemic by FAO 2011**
  - Bangladesh, China, Egypt, Indonesia, India, Vietnam
  - Other countries with poultry outbreaks (Cambodia)
- **Sporadic human infections continue to occur**
  - 2017: Human cases reported in Egypt
  - 859 sporadic cases reported since 2003 from 16 countries
  - **Cumulative case fatality proportion = 53%**
  - Admission findings:
    - High fever, cough, dyspnea, shortness of breath, leukopenia, lymphopenia, thrombocytopenia, bilateral pneumonia, hypoxia

# Low-Pathogenic Avian Influenza A (H7N9) Virus

## ▶ **March 31, 2013: China reported 3 human cases to WHO**

- ▶ All 3 adults in eastern China died
- ▶ 2 of 3 had poultry exposure
- ▶ **Novel avian influenza A(H7N9) virus identified**
  - ▶ Low pathogenic avian influenza (LPAI) A virus
  - ▶ Causes no disease in infected poultry

## ▶ **Risk factors:**

- ▶ Recent poultry exposure
- ▶ Visiting a live poultry market
- ▶ Raising backyard poultry
- ▶ Older age, chronic co-morbidities

## ▶ **Clinical characteristics**

- ▶ Most patients admitted 5-7 days after onset
- ▶ Most had viral pneumonia
- ▶ Multi-organ failure (respiratory, renal)
- ▶ Resistance to neuraminidase inhibitor antivirals
  - ▶ Emergence reported during treatment with oseltamivir
- ▶ Some mild cases identified

# Novel Influenza Type A: Infection Control

- ▶ Standard Precautions
  - ▶ Hand hygiene
- ▶ Contact Precautions
  - ▶ Gloves and gown
  - ▶ Eye protection
  - ▶ Dedicated equipment
  - ▶ Disinfect surfaces frequently
- ▶ Airborne Precautions
  - ▶ Single airborne infection isolation room (AIIR)
  - ▶ Fit tested respirator

# Antimicrobial Resistance

## The slow moving tsunami

- ▶ Bacteria
  - ▶ Gram negatives
  - ▶ Gram positives
- ▶ Yeast
  - ▶ *Candida auris*
- ▶ Drug resistant *gonorrhoea*



# Cholera

- ▶ Acute gastrointestinal infection caused by ingestion of food or water containing the *Vibrio cholerae* (serogroup O1 or O139)
- ▶ Global resurgence → Countries with severe poverty and civil unrest
  - ▶ E.g. Yemen and Somalia
- ▶ Establishment in the Americas
  - ▶ Starting in Haiti, 2010
- ▶ Vaccines now commercially available



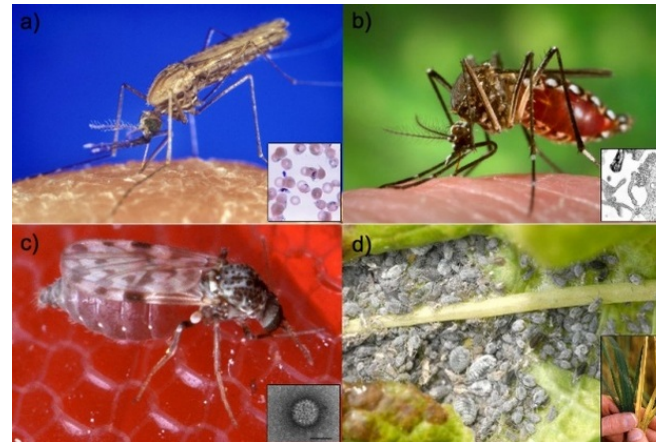
# Viral Hemorrhagic Fevers

Global health community closely monitoring for potential outbreaks

- ▶ Ebola Virus Disease
- ▶ Marburg
- ▶ Lassa Fever

# Vector-Borne Diseases (Mosquitos)

- ▶ Yellow Fever (*Flavivirus*) → acute viral hemorrhagic disease, **fatal in 20% to 50% of severe cases**
  - ▶ Angola/DRC 2015—2016
  - ▶ Brazil 2017
- ▶ Zika Virus
- ▶ Dengue
- ▶ Chikungunya
- ▶ Other (India)



# Synthetic Biology

56

**“A future...bioterrorism attack with a highly lethal agent, such as drug-resistant *Bacillus anthracis*, variola virus, or some other genetically altered pathogen, is not only possible but also highly likely.”**

**– Michael Osterholm**

- ▶ Rapidly advancing technologies
  - ▶ CRISPR gene editing
  - ▶ “Gain of function” research
- ▶ “Dual Use” dilemma
  - ▶ Same technologies can be used for *good* or *evil*
- ▶ Creates threat of new “designer” pathogens
  - ▶ Intentional or unintentional release
- ▶ Many potential sources of risk

## Synthetic Biology Means ?

- ☞ It is an emerging field of biology that aims at designing and building novel biological systems.
- ☞ The final goal is to be able to design biological systems in the same way engineers design electronic or mechanical systems.



Dr.T.V.Rao MD

5



# The “Unknown Unknowns”

## “NO PANDEMIC HAS EVER BEEN PREDICTED BEFORE IT INFECTED HUMANS”

- Patterns have appeared that bring into clearer focus the types of pathogens and environments where new diseases are most likely to emerge, as well as the roles that humans and animals play.
- Lessons learned from recent outbreaks are strengthening global health capacity to “prevent, detect and respond.”

# Action Roadmap

- ▶ Focus on infection control and surveillance
- ▶ Maintain frontline staff capabilities to “identify, isolate and inform”
  - ▶ Screening all patients presenting with acute illness for **infectious diseases of public health concern**
- ▶ “All infectious hazards” planning
- ▶ Multidisciplinary approach

# Thank You

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# LUNCH

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# PLANNING CONSIDERATIONS FOR BUDGETARY PERIOD 2 (BP2)

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**Darrin Pruitt**, Deputy Director, Bureau of Healthcare System Readiness,  
NYC Department of Health and Mental Hygiene

# HPP Requirements, BP2 and over 5 years

- ❑ Coalition Response Plan – informed by member EOPs; must show operations that support strategic planning, information sharing, and resource management
- ❑ Coalition HVA – annual review
- ❑ Surge Exercise – HPP requirements + broaden to prepare for evac/surge across all sectors
- ❑ Supply Chain Integrity – build on what we learn in BP1 about acute care sector.
- ❑ 2 communications drills
- ❑ Crisis Standards of Care - By June 2022, must document processes to oversee jurisdictional crisis standards of care (CSC) planning and to coordinate all local or regional planning efforts.

# **BRAINSTORMING: BP2 DELIVERABLES FOR BOROUGH COALITIONS**

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# LOOKING AHEAD TO BP2, THE ROLE OF BOROUGH COALITIONS

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**Darrin Pruitt**, Deputy Director, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene



# Review of your strategic plans

- Assess (20) – feasibility of alternate care sites, assessment of regional resources, cataloging facility types
- Plan (94) – resource management, surge response, coordination
- Train (11) – resource requests; local, state, federal systems and assets; EM basics to all staff
- Exercise (18) – coalition level exercises (Surge Ex 2.0)
- Communications/Situational Awareness (49) – mass notification systems, situational awareness tools/applications

# Think about...

- borough coalitions in preparedness, response and recovery
- capabilities to be developed to help Borough Coalitions build resilience at the community level
- catastrophic scenarios (e.g., nuclear detonation, severe pandemic, aerosolized anthrax release) to plan activities to encourage building resilience at the community level

# Healthcare System Playbook, Healthcare System Objectives

- Coordinate Healthcare System Response
- Establish Alternate Care Sites
- Evacuate Healthcare Facilities
- Leverage Citywide Infrastructure
- Provide Adequate Staffing
- Provide Clear, Timely Communications
- Provide Mental Health Response
- Provide Mutual Aid
- Provide Patient Care
- Respond to Medical Surge
- Support Family Reunification

# Alignment of strategic plan objectives with Healthcare System Playbook

- Assess – feasibility of alternate care sites
- Exercise – evacuation of healthcare facilities
- Plan surge response
- Communications/Situational Awareness – single situational awareness tool
- Train – cited in support of almost all resource elements

# Your input

- Break into 3 groups, 2 facilitators each
- Complete worksheets, conferring with colleagues
- Ask for help from facilitators
- Report out

# BRAINSTORMING: REPORT OUT

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# **HVA UPDATES & JURISDICTIONAL RISK ASSESSMENT**

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# HVA UPDATES

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**Shadrzad Kardooni**, Preventive Medicine Resident, NYC Department of Health and Mental Hygiene



# JURISDICTIONAL RISK ASSESSMENT

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**Francoise Pickart**, Senior Risk Analyst, Agency Preparedness & Response, NYC Department of Health and Mental Hygiene

# The Jurisdictional Risk Assessment

How do you allocate preparedness and mitigation resources where they are most needed?

In January 2018, DOHMH will begin work on a Public Health Risk Assessment to answer:


- How do we define the risk of public health hazards to NYC?
- What are the highest priority public health hazards for NYC?

This will be an inclusive process and *your participation will be requested.*

Final results will be published and included in NYC Emergency Management's Hazard Mitigation Plan (HMP).

# Previous Work

2013

- DOHMH Public Health Hazard Risk Assessment 
- DOHMH Metropolitan Statistical Area-wide Public Health Risk Assessment Report.



Top Hazards Region Wide

1. Storm/Weather
2. Pandemic
3. Flooding
4. Terrorism
5. Nuclear Facility Offsite Release
6. Power Outages
7. Hazardous Materials
8. Utility Disruption
9. Transportation Accidents
10. Explosions

DISASTER SCENARIO NYC HMP Section	SEVERITY	PROBABILITY	IMPACT OF PLANNING	PRIORITY RANK
Coastal Storm* Coastal Storms	2	6	2	1
Pandemic Influenza* Disease Outbreaks	5	9	1	2
Extreme Heat* Extreme Temperatures	8	1	6	2
Flooding Flooding	6	4	7	4
Aerosolized Anthrax Chem, Bio, Rad, Nuke (CBRN)	4	10	3	5
Radiological Dispersal Device* Chem, Bio, Rad, Nuke (CBRN)	3	11	3	5
Improvised Explosive Device* Not included in HMP†	7	7	5	7
Improved Nuclear Device Chem, Bio, Rad, Nuke (CBRN)	1	12	8	8
Winter Weather Winter Storms	9	3	10	9
Chlorine Release Chem, Bio, Rad, Nuke (CBRN)	10	5	9	10
Food Contamination Disease Outbreaks	12	2	11	11
Tornado Severe Weather	11	8	12	12

# Different Stakeholder Groups

DOHMH will be creating 4 citywide workgroups:

- The **Severity** workgroup: Identify and rank the top contributors to assessing the potential harm to the public's health.
- **Probability** workgroup: Identify and rank the top contributors to estimating the likelihood that an event will occur.
- The **Coping Capacity** workgroup: Identify and rank the top contributors to assessing the City's ability to cope with the event (includes preparedness and mitigation efforts).
- The **Hazard Ranking** workgroup: Identify and rank the top public health hazards to the city based on the work of the other workgroups.

More details will be available in January, we aim to complete the assessment by August 2018 and publish results online by November.

# NETWORKING BREAK

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# PUERTO RICO UPDATES WITH Q & A

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# POST HURRICANE MARIA RESPONSE EXPERIENCE

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**Nancy Pagan, RPAC, MPA-S**

New York Presbyterian - Weill Cornell Emergency Department

# Hurricane Maria

- Devastated Puerto Rico on September 20, 2017
- Category 5 Hurricane
- Over 1000 deaths thus far (12/09/17 NY Times)





# Pre-Deployment to Puerto Rico

- Medical clearance by Employee Health
  - Updated vaccinations
  - Mental Health clearance
  
- Picked up supplies and equipment
  - Included food, clothes, bags, flashlight and other necessities
  
- Clear work schedule
  - Colleagues very supportive
  
- Awaited the call for departure details

# Deployment to Puerto Rico

- Departure October 24, 2017
  - Second response team sent by NYP met at the hospital and transported by bus to JFK
- Commercial flight to San Juan, Puerto Rico
  - Team of 14, only three familiar to me
  - Flight consisted of response personnel and everyday travelers

# Arrival at San Juan, Puerto Rico

- After arrival, traveled by bus to San Juan Convention Center
- Awaited details of our assignment





# First Assignment

□ Manati, Puerto Rico

□ Coliseum Bencito

- Met with the Disaster Medical Assistance Team (DMAT) to discuss the operation in place
- NYP Team One passed pertinent information to Team Two who then departed back to JFK

# Coliseum Bencito

## □ Chain of Command

- Health and Human Services (HHS)
- Disaster Medical Assistance Team (DMAT)
  - Team Commander
  - Chief Medical Officer (CMO) and Chief Nursing Officer (CNO)
- Non Governmental Organization (NGO)
  - NYP, Stony Brook, JMAC, and FHMC
  - Each has its own team leader and charge nurse
- Emergency Medical Assistance Compact (EMAC)
  - Veterans Association (VA)



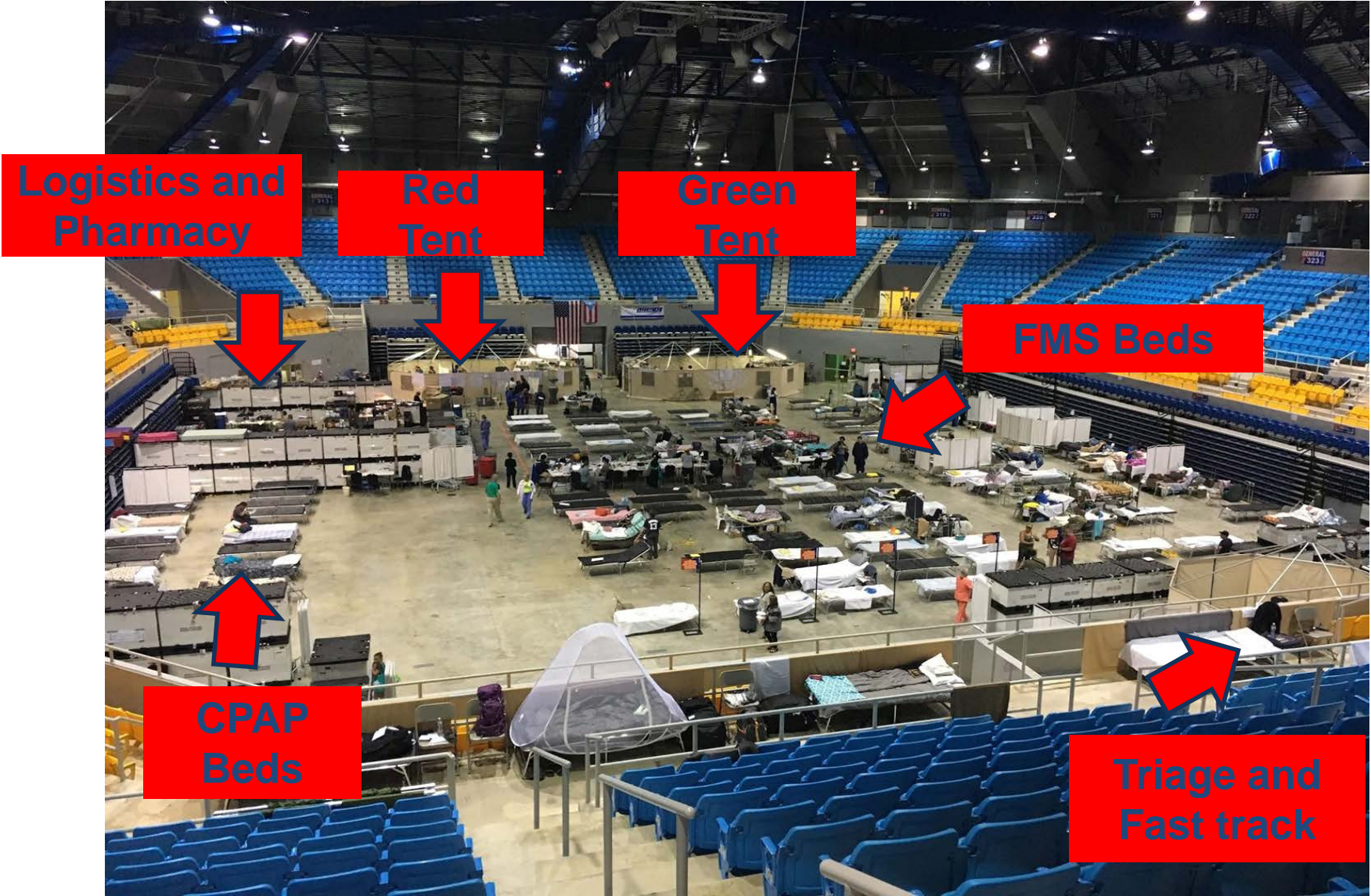




# Coliseum Bencito

- Patient care flow
  - Sign in
  - Triage
  - Assign to respective tent
    - Green, Yellow, Red
  - Treat
  - Discharge or transport to hospital by military escort

# Coliseum Bencito





# Coliseum Bencito

## □ Chronic medical needs

- Ventilated patients
- Continuous positive airway pressure (CPAP)

## □ Acute care cases

- Chest pain
- Asthma
- Abdominal pain
- Dehydration
- Leptospirosis

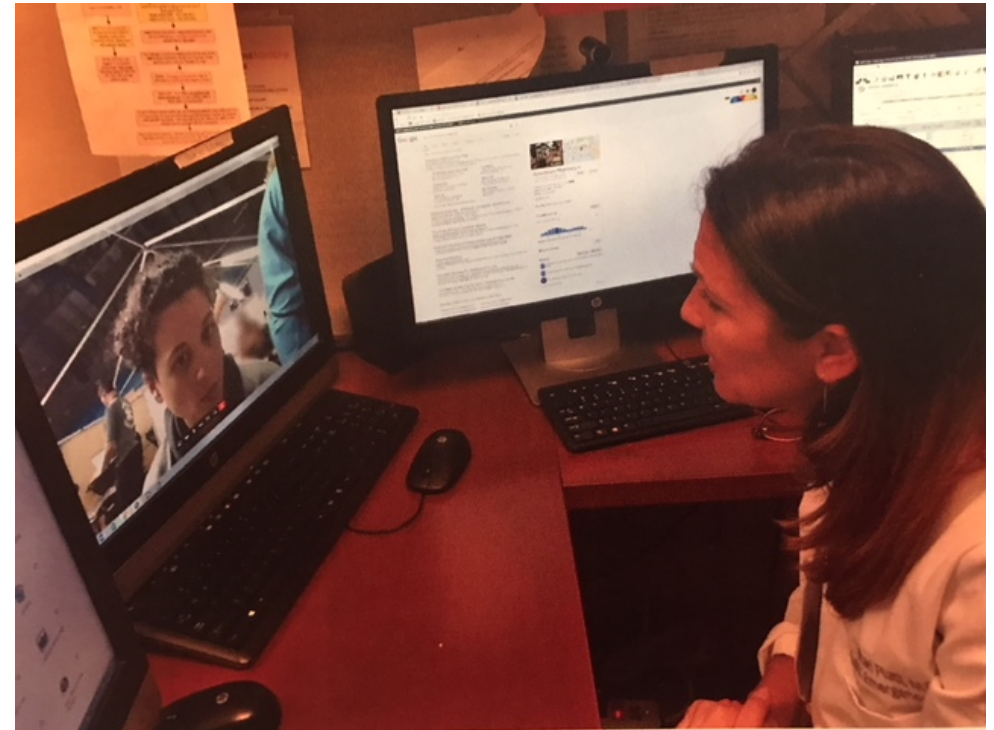
# Coliseum Bencito

- Urgent care cases
  - Conjunctivitis
  - Wound care
  - Abscesses
  - Dog bites
  - Burns
  - Machete injuries
  - Viral Illnesses

# Coliseum Bencito

## □ Telemedicine

- Provides long distance medical care between patient and clinician via electronic and telecommunication technology
- Utilized for three cases which required a pediatric and adult endocrinologists & an ear, nose and throat specialist (ENT)





# Coliseum Bencito

- ❑ Opened October 4, 2017
  - 150 bed Federal Medical Station (FMS)
  - Open 24 hours/7 days a week
  - 210-220 patients a day
  
- ❑ Currently closed
  - Unable to sustain power
  - Patients transferred to the Continental United States

# Second Assignment

- Meeting to split the team
  - Help was needed elsewhere due to the volume of patients
- Five members volunteered to go
  - Old San Juan, Puerto Rico



# Old San Juan Dock

## □ Chain of Command

- Health and Human Services (HHS)
- Disaster Medical Assistance Team (DMAT)
  - Team Commander
  - Chief Medical Officer (CMO) and Chief Nursing Officer (CNO)
- Non Governmental Organization (NGO)
  - NYP, Stony Brook, JMAC, and FHMC
  - Each has its own team leader and charge nurse
- Emergency Medical Assistance Compact (EMAC)
  - Veterans Association (VA)

## □ USNS COMFORT (T-AH-20)



# Old San Juan Dock

- Met with DMAT Team Leader and CMO to discuss patient flow
  - High volume of patients at this location
    - 300-320 patients per day
  - Implemented a new triage system and opened up a new tent specifically for fast track/urgent care
    - New flow tested for 10 hours and permanently implemented

# Old San Juan Docks

- Patient care flow
  - Sign in
  - Triage
  - Assign to respective tent
    - Green, Yellow, Red
  - Treat
  - Discharge or transport to USNS Comfort











# Old San Juan Docks

- Large percentage of patients needed basic medical care
  - Medication refills
  - Dental care
  - Ophthalmology care
  - Gynecological care
  
- USNS Comfort staff provided dental and ophthalmologic care inside the DMAT tent

# USNS Comfort

- Approximately 1000 in patient beds including casualty reception (ER), ICU, Med Surg, Radiology (X-Ray/CT capabilities), OR, Dental, Ophthalmology and Gynecology
- NYP members worked in CasRec: Casualty Receiving - is equivalent to the ER with trauma capabilities
- Worked with Naval staff
- Lived on the USNS Comfort







# Sleeping quarters USNS Comfort

# Old San Juan Docks

- USNS Comfort arrived in Old San Juan on October 3, 2017
  - Treated 1899 patients and completed 191 surgeries (11/21/17, America's Navy)
  - Two births on the ship
- Ship departed on November 21, 2017 for the Continental United States





# Return to New York City

- Departed San Juan, Puerto Rico via charter flight on November 8, 2017
- After two weeks, strangers became friends
- Arrived home to a welcoming committee from NYP
- Thank you luncheon from NYP for the two disaster response teams



 nyphospital 13m 

**Welcome home Team 2! Thank you for your #amazing work & commitment to patient care!**



**#NYPResponds**

# Personal Thoughts

- Reasons for volunteering
- Impact
- Return to Puerto Rico
- Care and gratitude





# GRACIAS!



# PUERTO RICO RESPONSE EXPERIENCE

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**Timothy Styles**, Medical Director, Bureau of Healthcare System Readiness,  
NYC Department of Health and Mental Hygiene



# **MEMBER ANNOUNCEMENTS & INVITATIONS TO UPCOMING EVENTS**

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# CONCLUDING REMARKS

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