The New York City Health Care Coalition (NYCHCC) Leadership Council (LC) Meeting

NYC Department of Health and Mental Hygiene
Office of Emergency Preparedness and Response
Bureau of Healthcare System readiness

Thursday, September 20, 2018

NYC Health

Welcome!

NYC Health

Morning Agenda

AM	
8:30 – 9:00	*Registration*
9:00 – 9:30	*Welcome/Opening Remarks*
9:30 – 10:00	*Report-out on BP1 Deliverables*
10:00 – 10:30	*BP1 Facility Profile Application: Bed Shortfalls – HMExec Priority 1*
10:30 – 11:15	*SurgeEx: BP1 Report-out and Lining it up for BP1 SUPP – HMExec Priority 2*
11:15 – 11:30	*Networking Break*
11:30 – 12:30	*NYCHCC – Election for Leadership Council Governance Board Seats* *Election Process and Candidate Presentations*

NYC Health

Afternoon Agenda

PM	
12:30 – 1:00	*Networking Lunch*
1:00 – 1:30	*Mass Casualty Incidents (MCIs) & Mass Fatality Planning – HMExec Priority 2*
1:30 – 1:45	*NYCHCC Steering Committee (HMExec) Updates*
1:45 – 2:15	*HVA/JRA (Hazard Vulnerability/Jurisdictional Risk Assessment)*
2:15 – 2:45	*Infectious Diseases: What's on the Radar*
2:45 – 3:15	*Community Engagement Framework*
3:15 – 3:30	*Election Results*
3:30 – 3:45	*Final Remarks and Adjourment*
3:45 – 5:00	*1st Meeting of the NYCHCC Leadership Council Governance Board*

NYC Health

The New York City Healthcare Coalition

WORKING TOGETHER TO ADVANCE THE READINESS OF NYC'S HEALTH SYSTEM

Marisa Raphael, MPH
Deputy Commissioner, Office of Emergency Preparedness and Response

Our Mission

To support the New York City healthcare system to respond safely and effectively in emergencies

Our Vision

- Healthcare delivery and public health stakeholders collaboratively prioritize and address preparedness and response gaps.
- Healthcare facilities of all kinds have the tools and resources they need to care for their patients and residents during an emergency event.
- New York City's healthcare system will better endure emergency events, ensuring continuity of care and the system's ability to meet acute health and medical needs during, and post-emergency.

DOHMH Office of Emergency Preparedness Approach to Healthcare System Support

- Directly funded by Assistant Secretary and Response (ASPR) as part of National Hospital Preparedness Program (HPP)
- Focus is on directing funds to healthcare system partners to strengthen facility, coalition, and system level capacity and capability
- Must meet federal grant requirements, and always strive to do so in a way that supports our mission

Complex Healthcare System

Diverse Population, Many Health Needs

https://www1.nyc.gov/assets/doh/downloads/pdf/data/2015_CHP_Atlas.pdf

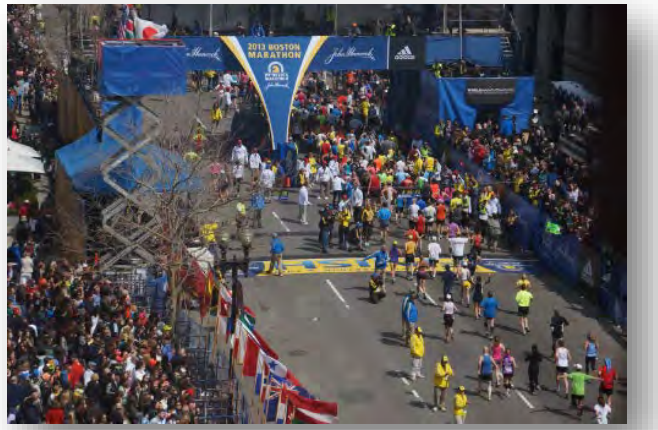
Evolving Healthcare Landscape

Emergency Preparedness Final Rule

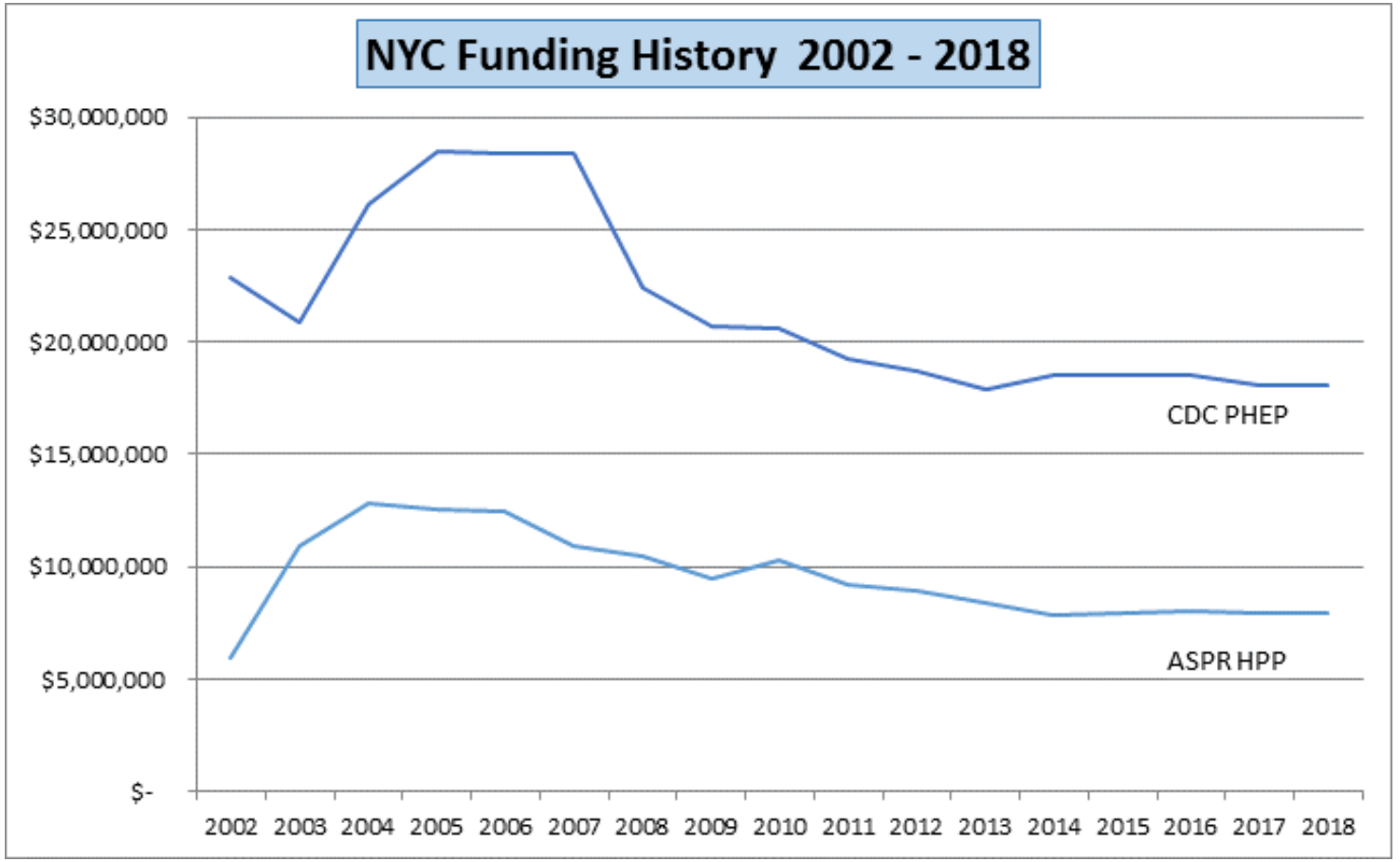
CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

Consolidation

Recent Events Highlight Critical Role of Healthcare



Declining Federal Funds



Keys to Success

- Recognizing that Healthcare is on the front lines of response to Public Health emergencies – we all need to be ready!
- Health department has capacity and specialized knowledge to bring stakeholders to the table for preparedness for, response to, and recovery from events that impact health
- Maximize effectiveness of resources
  - Always strive to evaluate impact of work and promote success
  - Use coalitions to amplify messages and strengthen resilience
- Stay focused on mission and vision while meeting program requirements

CELEBRATING 15 years

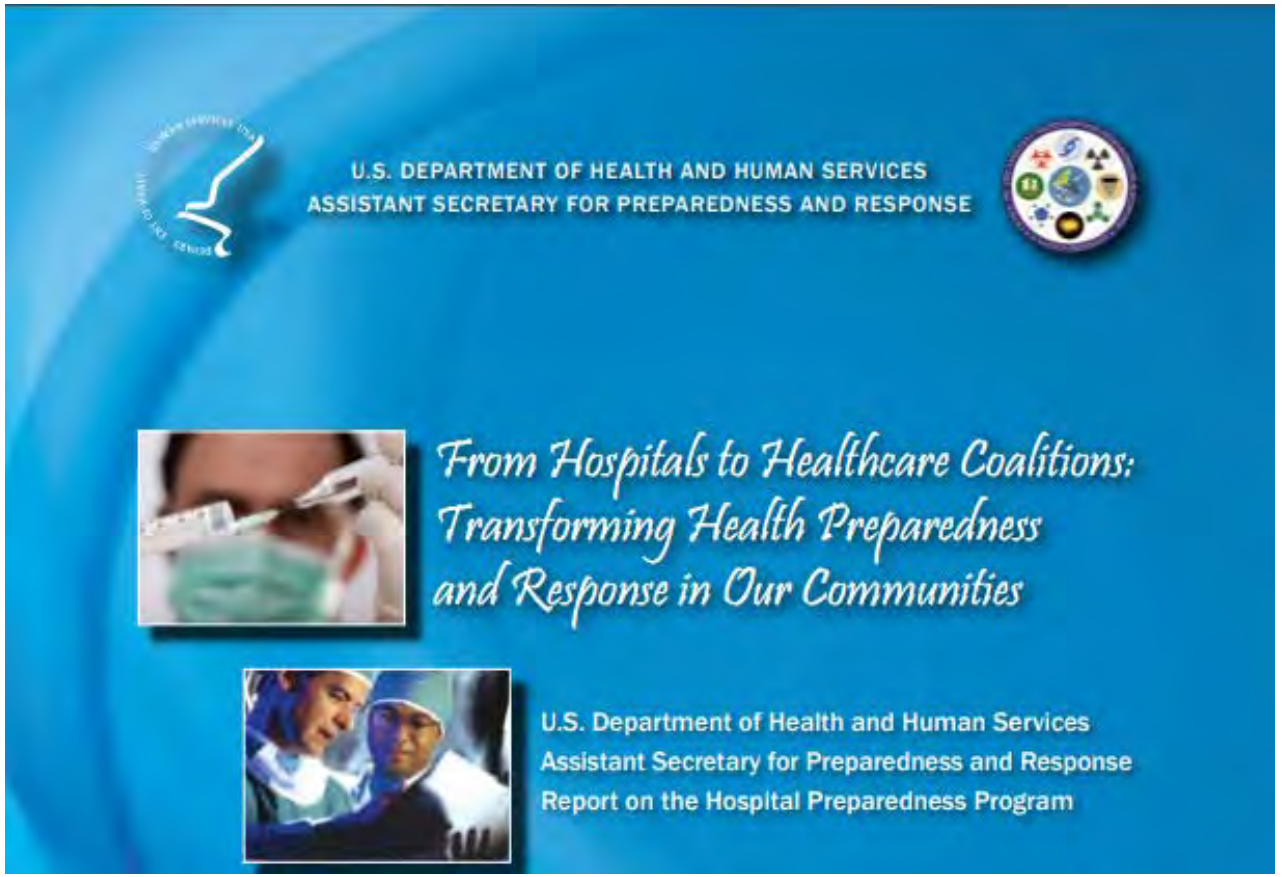
Pre 9/11/2001

- No formal response structure
- No EOC
- Limited pool of leadership to run complex response
- Limited IT structure
- Limited capability to reach healthcare providers
- Limited response plans
- No automated syndromic surveillance

Successes – 15 Years Later

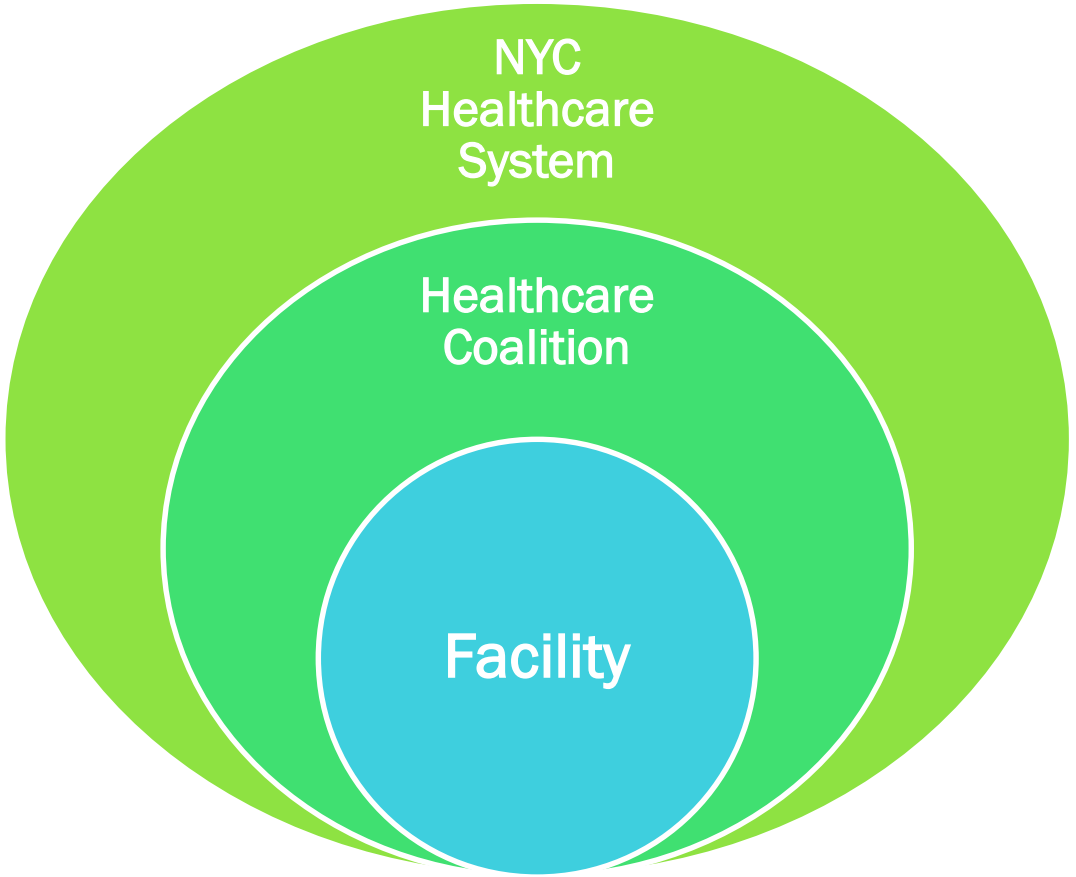
- ✓ Defined preparedness targets and tools
- ✓ Robust capabilities
- ✓ Critical partnerships forged and maintained
  - ✓ Public health role in emergency management
  - ✓ Emergency management role in public health
- ✓ Coalition building

Why Healthcare Coalitions?



https://www.phe.gov/Preparedness/planning/hpp/Documents/hpp-healthcare-coalitions.pdf

A Healthcare Coalition for New York City



2018: Formalizing the NYCHCC

NEW YORK CITY HEALTH CARE COALITION CHARTER

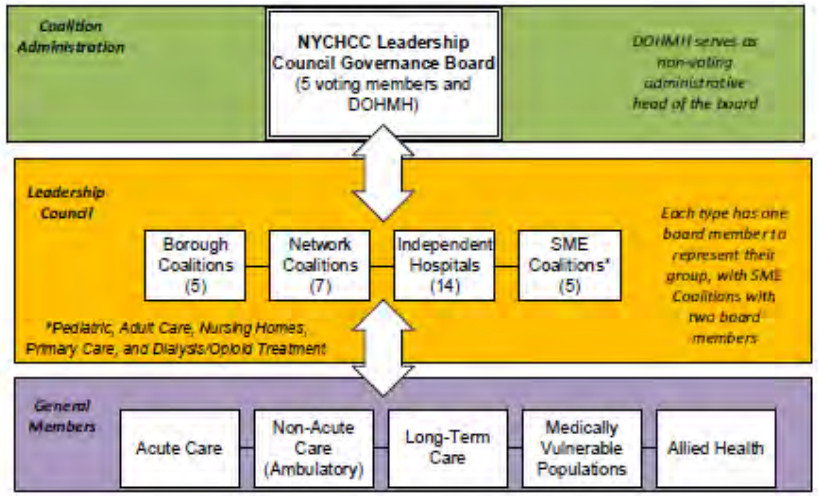
Version 1.1: June 30, 2018

Abstract

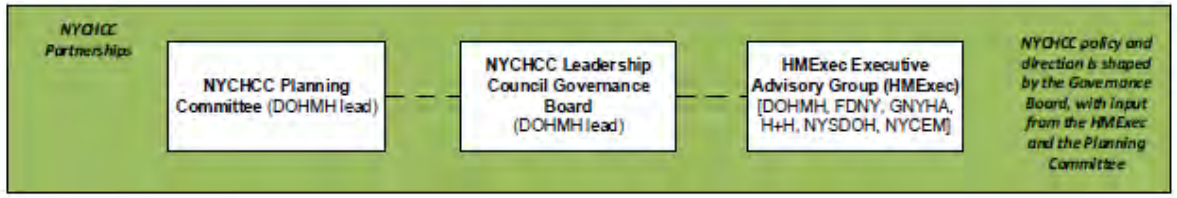
The NYC Health Care Coalition is a collaboration of health and non-health care partners, organized in support of health care facility preparedness and response to an emergency, mass casualty or catastrophic public health event in the City of New York ("City")

Annex A - NYCHCC Functional Organization Charts

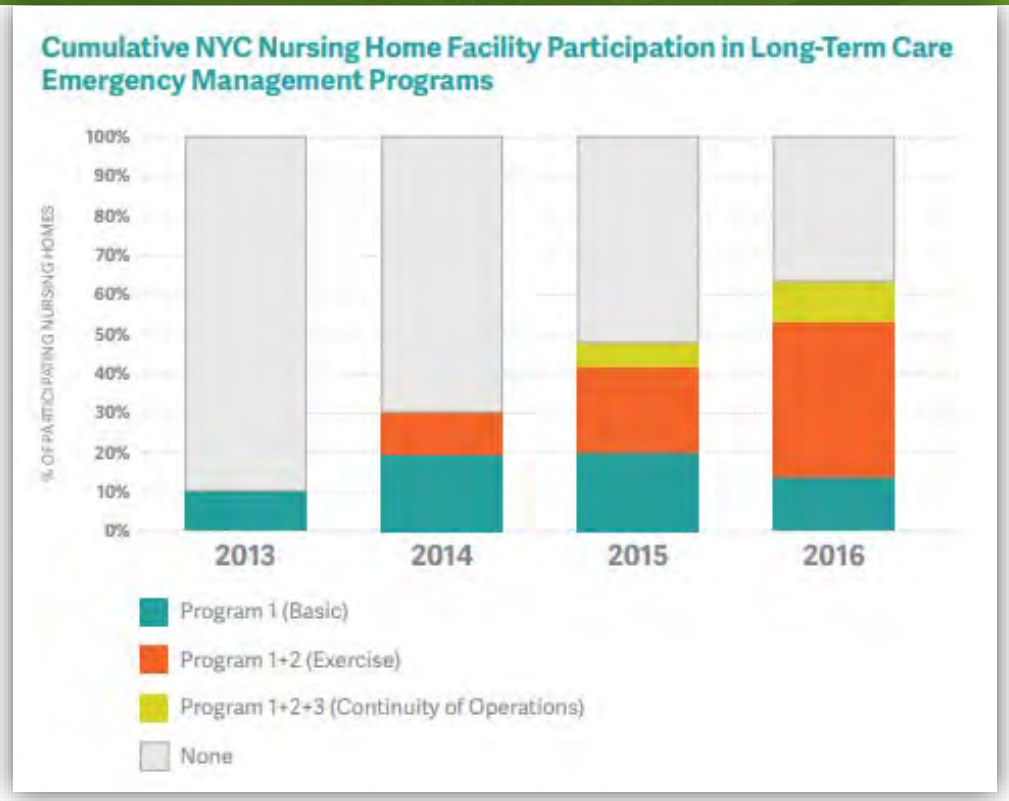
The following illustrates how the NYCHCC functions in its preparedness activities, with the Governance Board serving as the head of the coalition:



This chart demonstrates how the Governance Board is supported by HMExec (as the steering committee for the NYCHCC) and the DOHMH's Planning Committee:



Accomplishments: Facilities



Including Nursing Homes recruited for this year's programs, 85% of all NYC Nursing Homes have participated in at least one of our programs.

New York City medical reserve corps

North HELP COALITION

North HELP and the NYC Medical Reserve Corps trained more than 500 dialysis center and Opioid Treatment Program staff on how to train clients on personal preparedness.

PCEPN conducted more than 40 screening and isolation drills in primary care sites.

Accomplishments: Coalitions

NYC Pediatric Disaster Coalition

DEVELOPING A SURGE PLAN TO ACCOMMODATE MEDICALLY VULNERABLE COMMUNITY MEMBERS

555 WEST 57TH STREET, NEW YORK, NY 10019 • T (212) 246-7100 • F (212) 262-6350 • WWW.GNYHA.ORG • PRESIDENT, KENNETH E. RASKE

Coastal storms and other hazards threaten the New York region and could necessitate the evacuation of individuals living in designated evacuation zones, as well as patients or residents in health care facilities in the same zones. While most jurisdictions have robust sheltering plans that include Special Medical Needs Shelters (SMNS), these facilities generally provide only basic medical care, such as oxygen administration, wound care, and the monitoring of vital signs.

Because of this limitation, health care facilities outside evacuation zones or in higher evacuation zones (i.e., New York City's Evacuation Zones 5 and 6) are advised to have surge plans to accommodate medically vulnerable community members living in evacuation zones and hospital patients who were evacuated from other facilities. Since medically vulnerable community members could be brought to a hospital before or after the storm, hospital surge plans should account for receiving individuals in both timeframes. While predicting the acuity level of medically vulnerable community members is difficult, based on previous experiences, many of them will require skilled nursing level care.

This document is designed to help health care facilities–specifically hospitals–modify their existing surge plans for the purposes of accommodating medically vulnerable community members. Five sections follow:

1. Activation, Integration, and Scalability of the Surge Plan for Medically Vulnerable Community Members
2. Surge Space
3. Equipment and Supplies
4. Staffing
5. Communications

Each topic area includes points for consideration when developing and/or modifying a facility's plans, and specific examples adapted from actual facility plans.

ACKNOWLEDGEMENT
GNYHA thanks MediSys Health Network for sharing their Skilled Nursing Facility Patient Surge Response Plan, which their staff developed based on experiences with medically vulnerable community members during Hurricanes Irene and Sandy. This guidance document directly incorporates information from the MediSys plan.

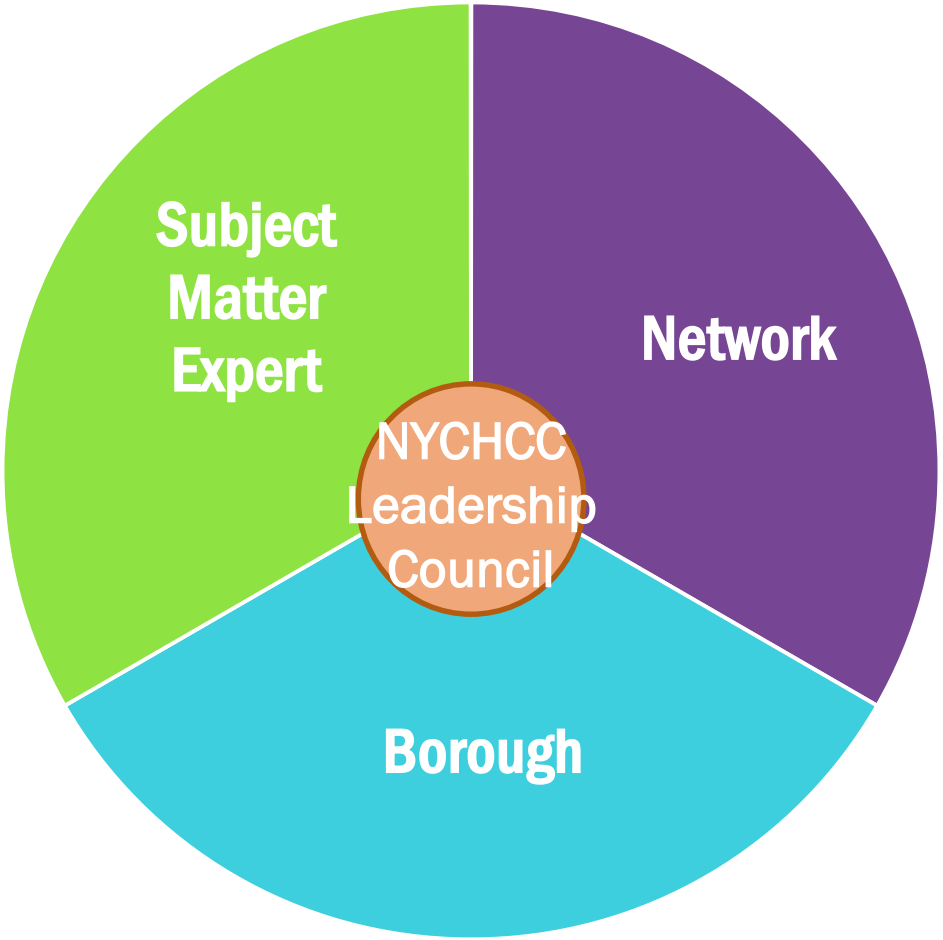
GNYHA

GNYHA is a dynamic, constantly evolving center for health care advocacy and expertise, but our core mission—helping hospitals deliver the finest patient care in the most cost-effective way—never changes.

EBOMBABLE BROOKLYN 2.0

Brooklyn Coalition for Emergency Preparedness Exercise
March 3, 2016

Accomplishments: System



NYC Emergency Management

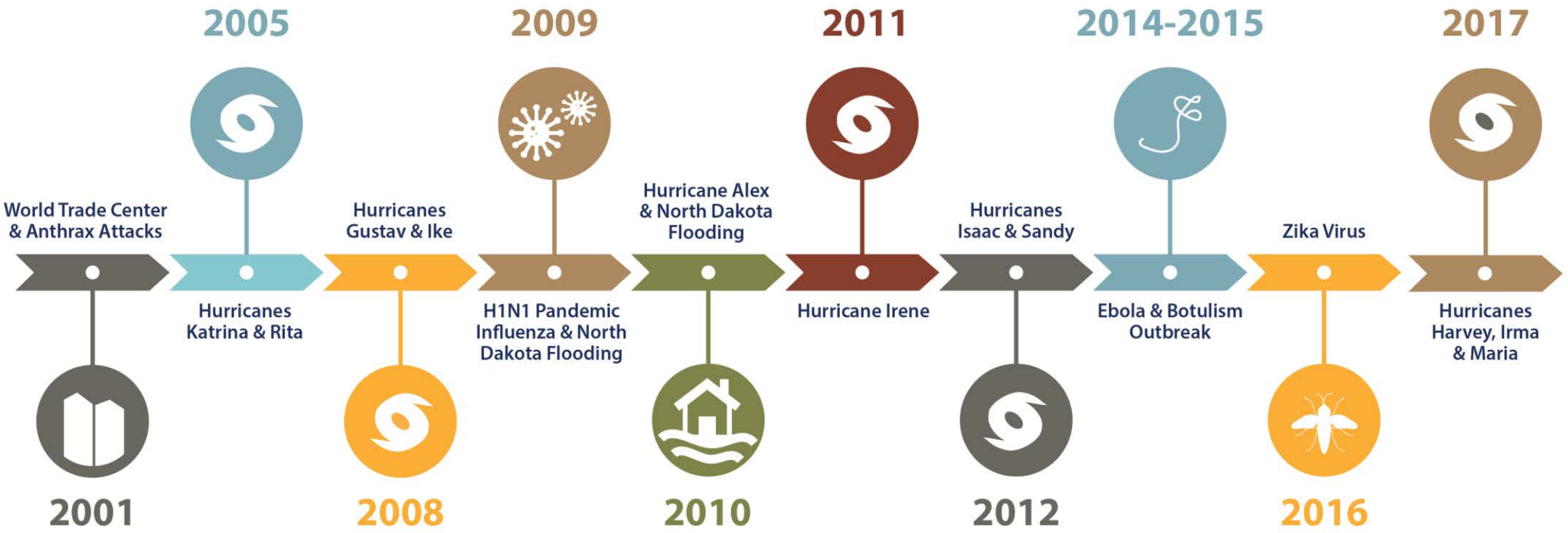
FIRE DEPARTMENT CITY OF NEW YORK

GREATER NEW YORK HOSPITAL ASSOCIATION GNYHA

NYC HEALTH+ HOSPITALS

NYC Health

Responses


2001
World Trade Center & Anthrax Attacks
2005
Hurricanes Katrina & Rita
2008
Hurricanes Gustav & Ike
2009
H1N1 Pandemic Influenza & North Dakota Flooding
2010
Hurricane Alex & North Dakota Flooding
2011
Hurricane Irene
2012
Hurricanes Isaac & Sandy
2014-2015
Ebola & Botulism Outbreak
2016
Zika Virus
2017
Hurricanes Harvey, Irma & Maria

The 1 Ebola case

↓

1 case treated

3 contacts monitored

114 HCWs monitored

2200 travelers monitored

Distributed over **100,000** "Am I At Risk?" cards
Spoke at **116** community outreach events
Issued **6** Health Alerts and **2** MMWRs
Created **58** guidance documents
Developed **33** public education materials
Designed **19** trainings

873 Ebola-related calls to 311
250 provider calls to EVD on-call doctor
56 calls from hospitals
45 F/T EMS calls
42 PUIs investigated
9 EVD tests performed

4 hospitals prepared to isolate, stabilize and treat
9 hospitals prepared to isolate, stabilize and transfer
35 ambulatory site visits/training
All hospitals required to conduct readiness drills

ICS activated for **487** days:
1061 staff activated
Trained **500** MRC volunteers
Trained **300** general staff
$11m projected costs

2 concurrent activations
- Hepatitis A Exposure
- East Village Building Explosion

NYC Health

New Priorities and Remaining Challenges

- **Continuing to formalize the NYC Healthcare Coalition and its connection to the Health and Medical Executive Advisory Group**
- **Finalizing and maintaining NYC Healthcare Coalition foundational documents:**
  - Charter
  - Preparedness plan
  - Response plan
- **Potential new federal requirements and shifting federal priorities**

Thank You!

Report-out on BP1 Deliverables

- **Jannae Parrott**, Preparedness Field Assignee, CDC, Evaluation Coordinator, NYC Department of Health and Mental Hygiene
- **Darrin Pruitt**, Deputy Director, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene

NYC Health

Data provided to DOHMH via deliverables in BP1 (July 1, 2017 to June 30, 2018) - NYC Hospitals & Networks

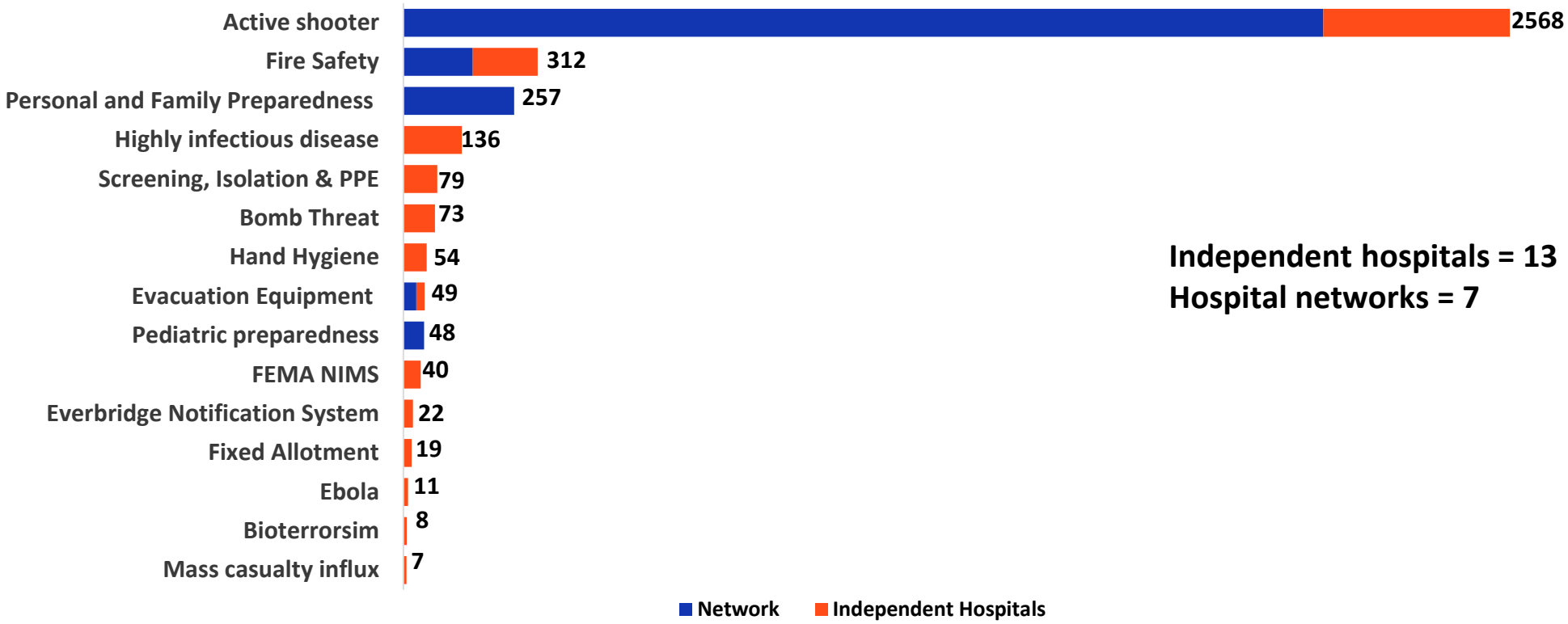
- Deliverable 6: CIMS training
- *Deliverable 7: Citywide Surge Exercise*
- Deliverable 8: Training and planning for training
- Deliverable 9: Supply chain information

City Incident Management System Training, BP1 (July 1, 2017 to June 30, 2018) - NYC Hospitals & Networks

- Hospitals training at least 3 staff – **54**
- Staff trained - **164**

Staff trained by topic in BP1 (July 1, 2017 to June 30, 2018) – NYC Hospitals & Networks

NYC hospitals and networks trained their staff on a number of emergency preparedness topics.
Of 3,683 staff trained, 2,568 **(70%)** were trained to respond to an **active shooter incident.**

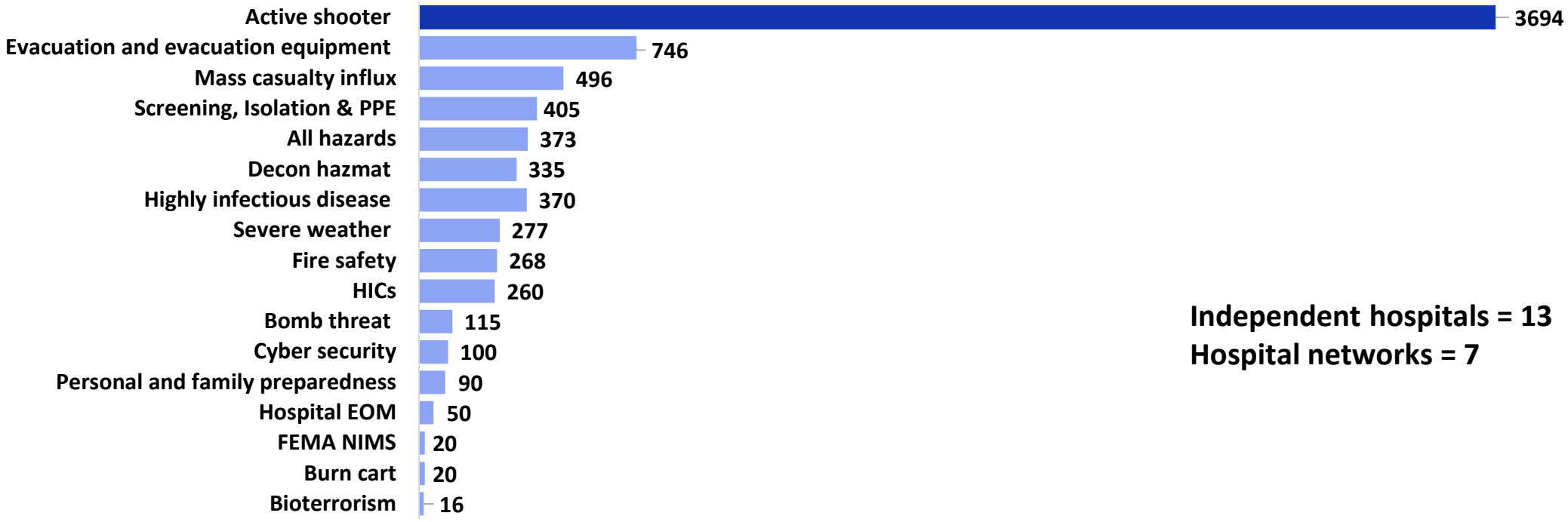


Independent hospitals = 13
Hospital networks = 7

NYC Health

Planned Training (July 1, 2018 to June 30, 2022) – NYC Hospitals & Networks

NYC hospitals and hospital networks plan to train their staff on a number of emergency management topics
Of the 7,635 staff slated for training, 3,694 **(48%)** will be trained to respond to an **active shooter incident.**



Independent hospitals = 13
Hospital networks = 7

NYC Health

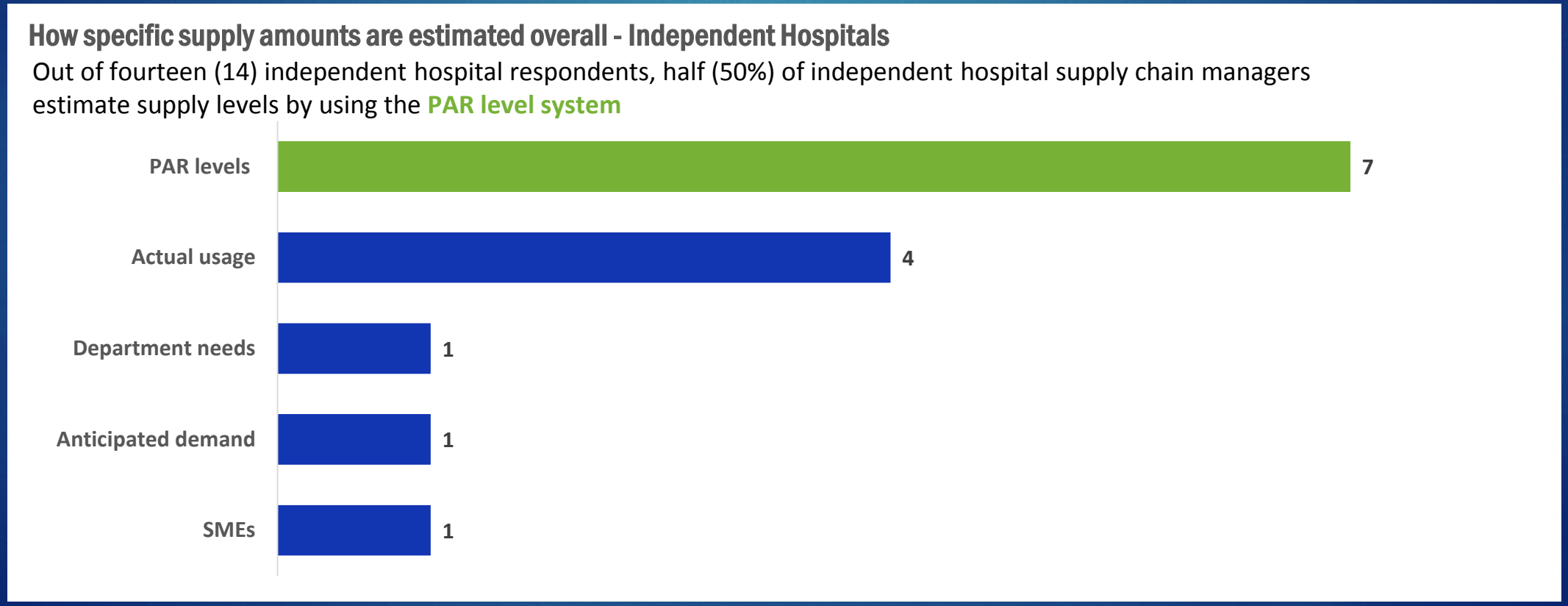
Supply chain integrity survey results

- 7 networks, 14 independent hospitals responding
- Questions
  - Estimating supply amounts (non-emergency, emergency)
  - Critical resources during disasters
  - Resources ordered just in time and those typically stored
  - Resources available from others
  - Alternative resources
  - Problems receiving resources during disasters
  - Primary suppliers/distributors

NYC Health

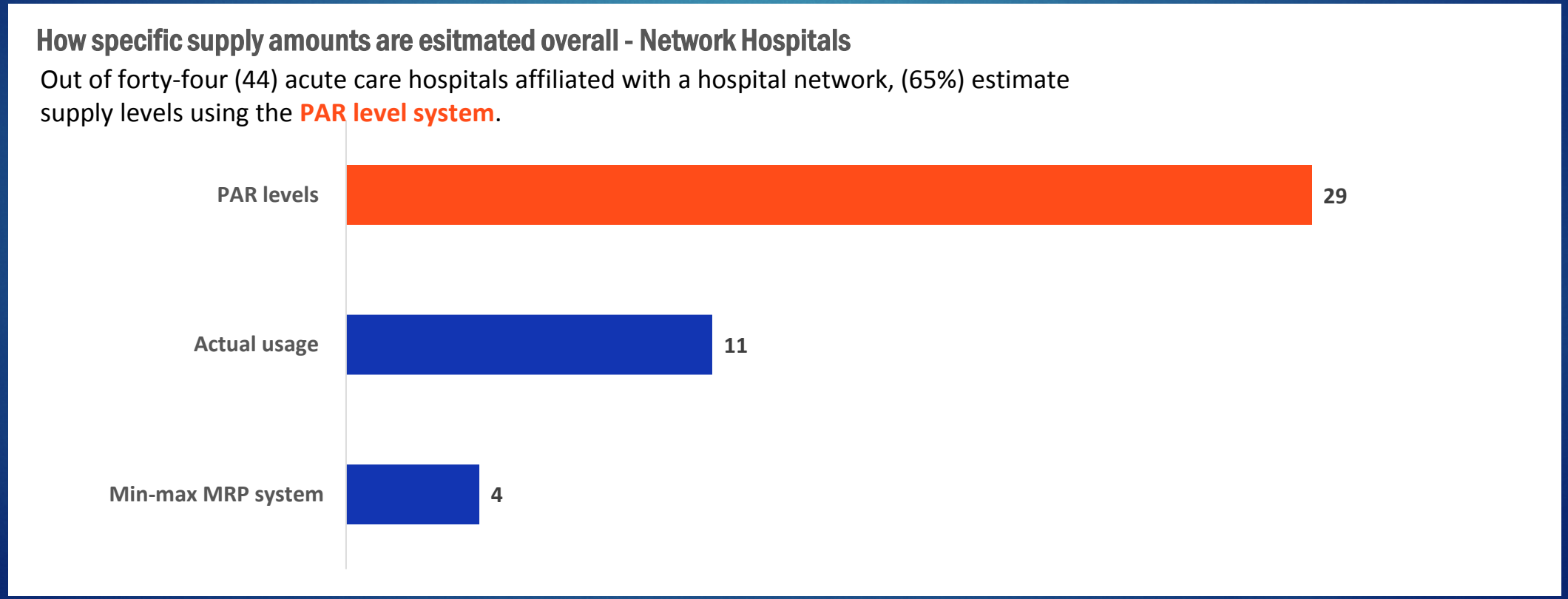
Periodic Automatic Replenishment (PAR) is the most widely used method for estimating supply amounts normally

Independent hospitals (n = 14)



Periodic Automatic Replenishment (PAR) is the most widely used method for estimating supply amounts normally

Network hospitals (n=44)

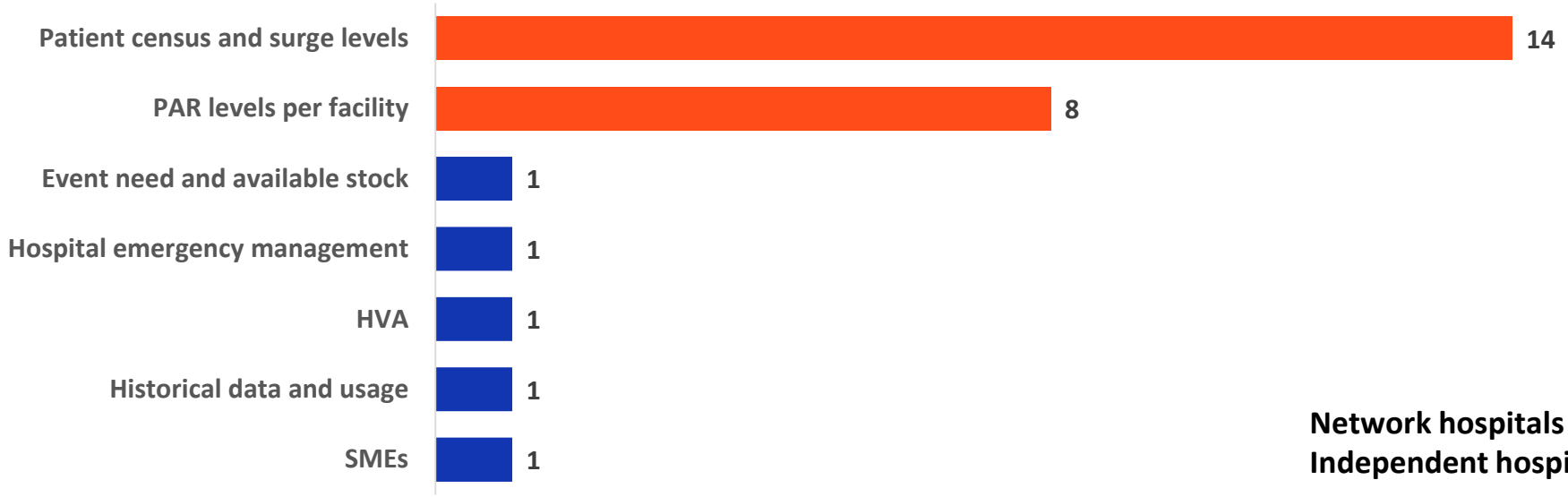


Patient census and surge levels is the most widely used method for estimating supply amounts during disasters

Network hospitals (n = 16), Independent hospitals (n = 11)

Assessing Supply Needs for Specific Disaster Scenarios - All Respondents

For a **planned evacuation, trauma surge, medical surge, and bio-event** disaster scenario,
NYC hospitals cited estimating supply amounts **on patient census and PAR levels per facility** the most.

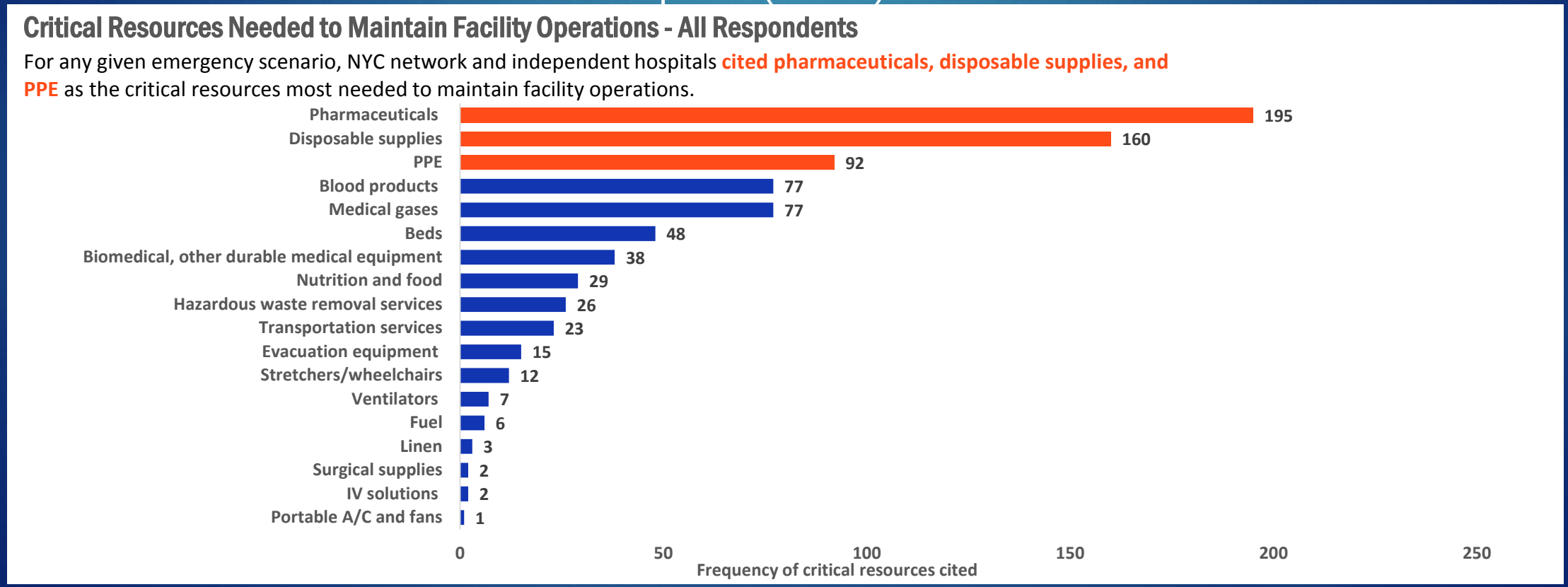


Network hospitals = 16
Independent hospitals = 11

NYC Health

Pharmaceuticals, disposable supplies and PPE are the top 3 most needed supplies for all disaster types by all hospitals

All hospitals (n =54)



The top 3 most needed supplies for different disaster types vary but PPE, pharmaceuticals and disposable supplies are still important

7 Networks and 14 Independent hospitals

Disaster Scenario	Top 3 Critical Resources in Rank Order by Frequency Listed
Bio-event (e.g. aerosolized anthrax release)	1. PPE
	2. Pharmaceuticals
	3. Disposable supplies
Planned evacuation	1. Pharmaceuticals
	2. Disposable supplies
	3. Medical gases
Trauma Surge (e.g. MCI)	1. Blood products
	2. Disposable supplies
	3. Pharmaceuticals
Medical Surge (e.g. pandemic flu)	1. Pharmaceuticals
	2. Disposable supplies
	3. PPE
No Notice Evacuation (e.g. direct attack on facility)	1. Disposable supplies
	2. Biomedical, other durable medical equipment beds
	3. Pharmaceuticals

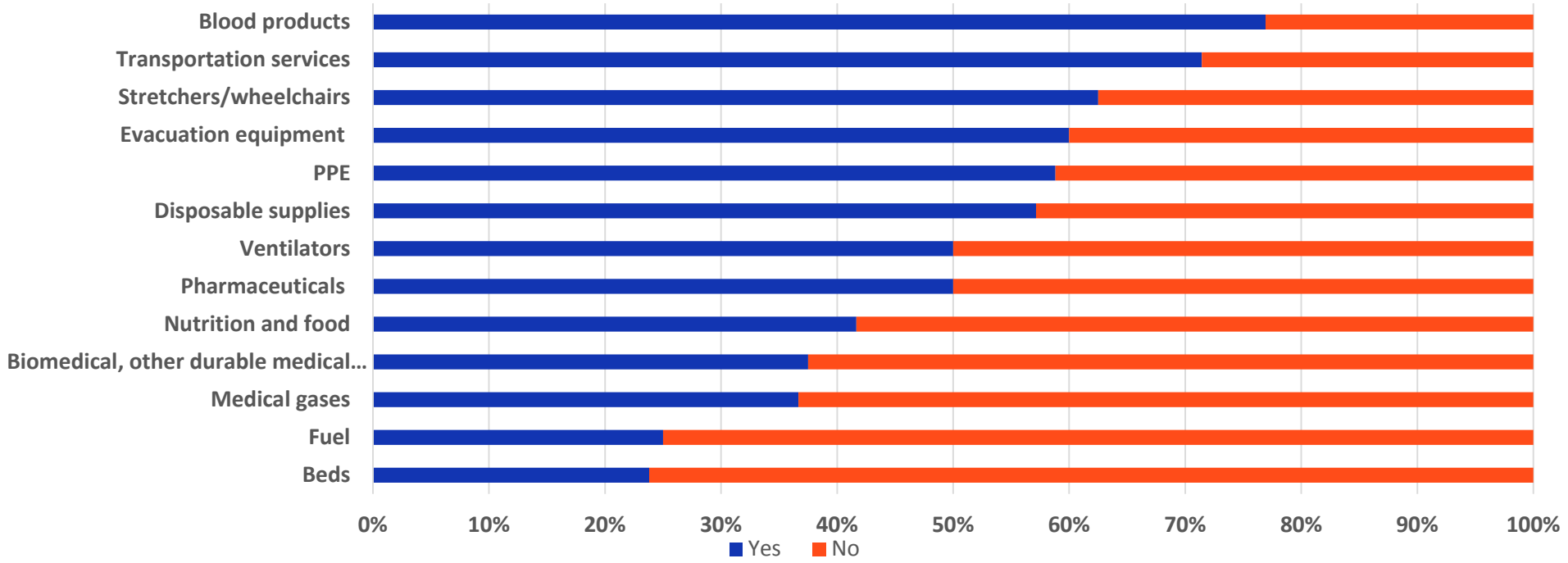
NYC Health

Blood products, transportation and stretchers and wheel chairs are the top 3 items ordered just in time

7 Networks, 14 Independent hospitals

Just in Time Materials and Equipment - All Hospitals

Survey respondents cited **blood products, transportation services and stretchers/wheelchairs** as the top just in time materials and equipment they do not have readily available in stock and must request from a vendor.

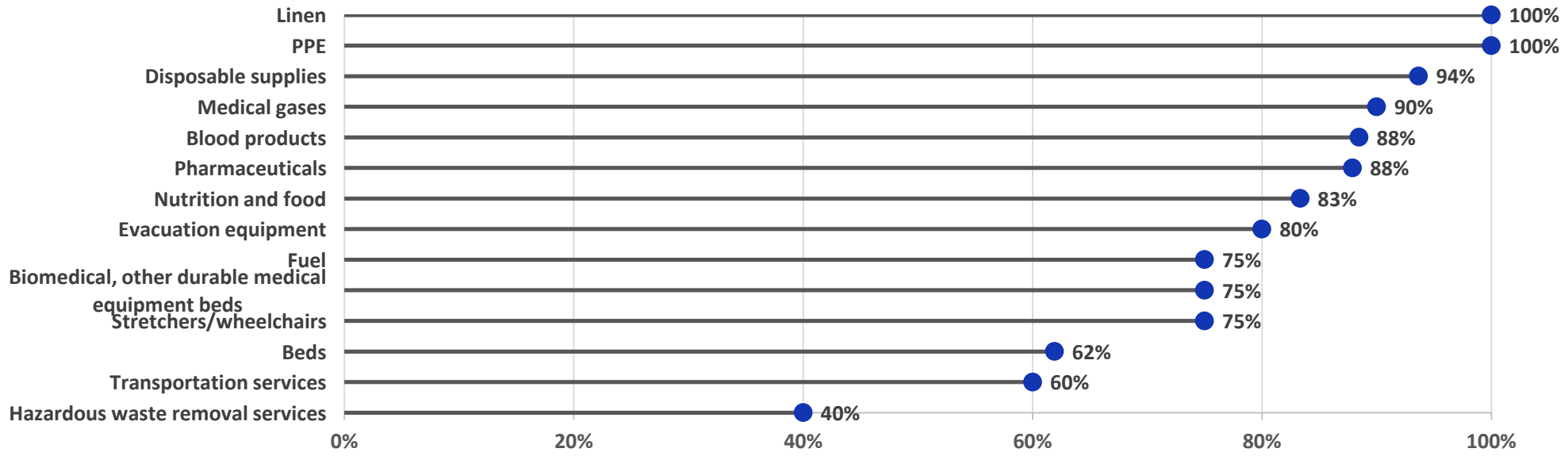


Linen, PPE, disposable supplies and medical gases are items most often stored by hospitals

7 Networks, 14 Independent hospitals

Material Storage - All Hospitals

Of the critical supplies needed to respond to emergencies, NYC hospitals said they store **linen, PPE, and disposable supplies** the **most**.



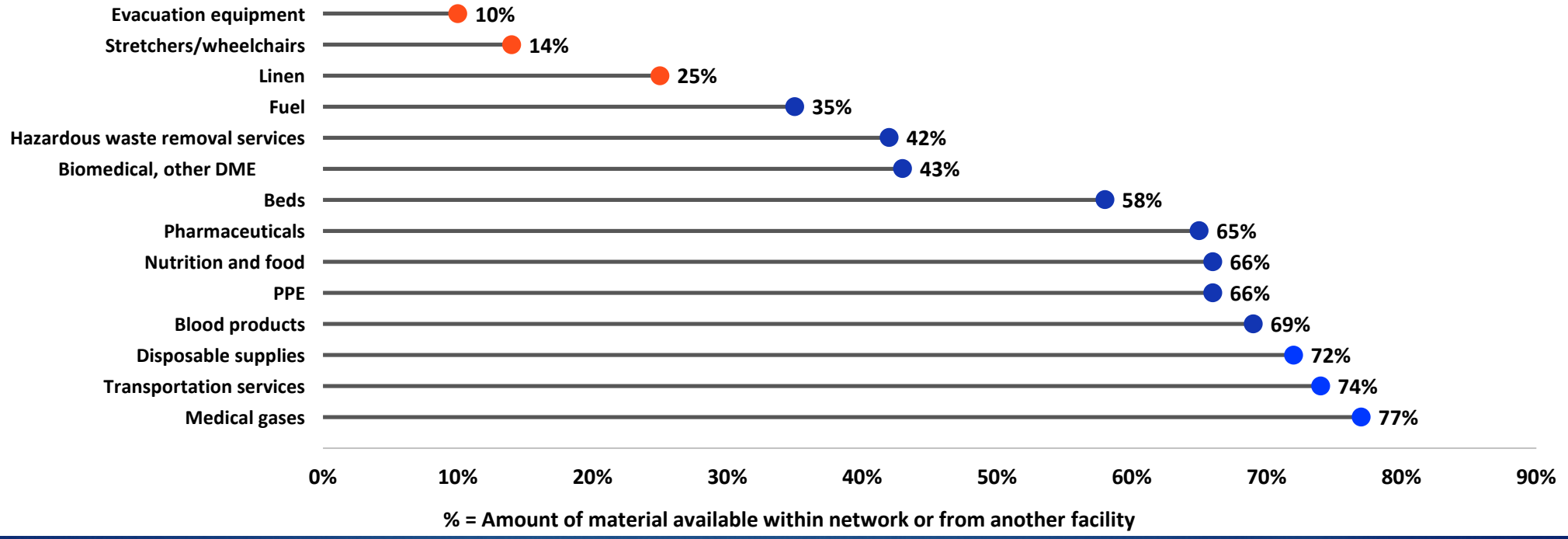
NYC Health

Evacuation equipment, stretchers and wheelchairs, linen and fuel are items least available from others

Network hospitals (n = 40), Independent hospitals (n = 14)

Material Availability - All Respondents

Of the critical supplies needed to respond to emergencies, NYC hospitals believe **evacuation equipment, stretchers/wheelchairs, and linen** are the supplies least available within their networks or from a facility which they have a relationship with.



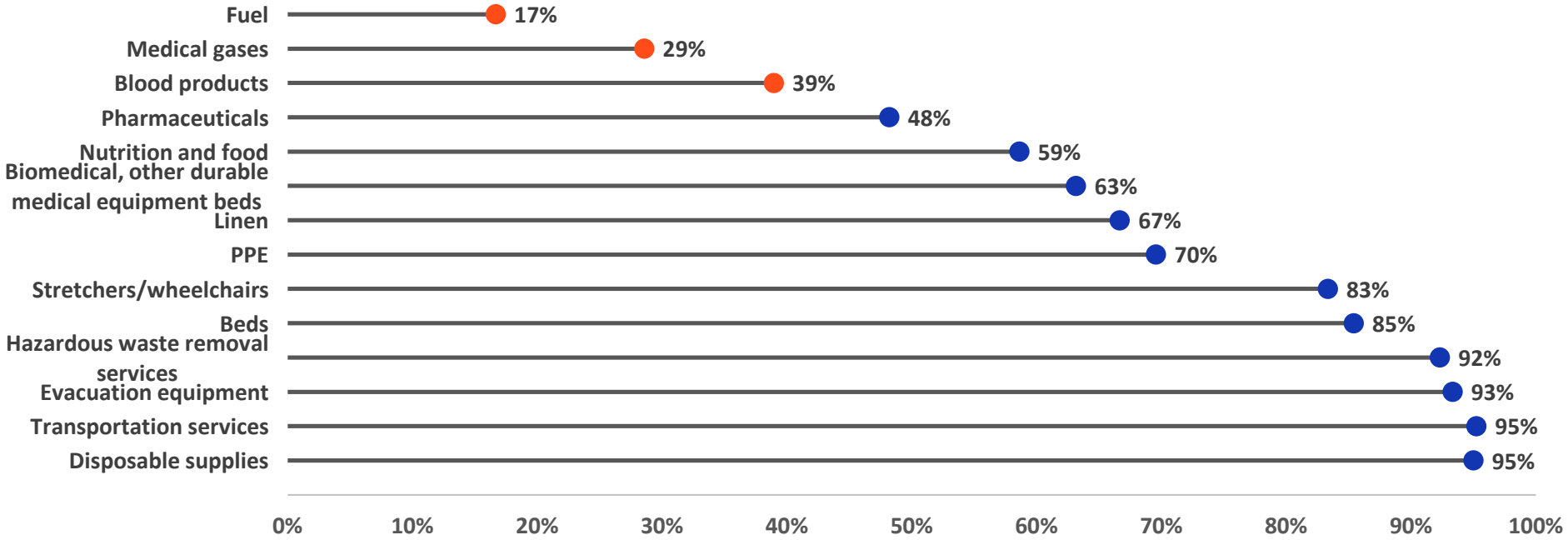
NYC Health

Fuel, medical gases, blood products and pharmaceuticals are the items with the least alternatives or equivalents

Network hospitals (n = 40), Independent hospitals (n = 14)

Alternatives and Equivalents - All Respondents

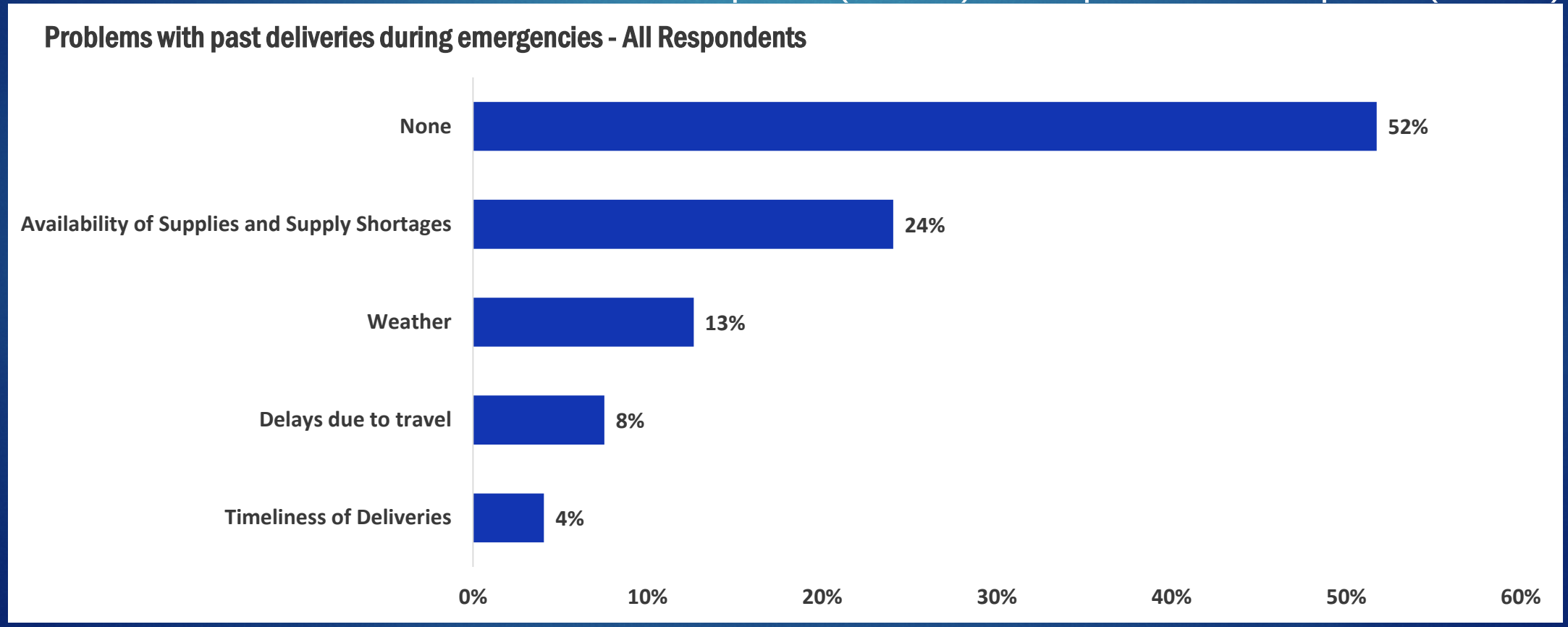
When asked if facilities can use alternatives and equivalents for the selected critical resources, NYC hospitals listed **fuel, medical gases, and blood products** as the resources with the least amount of alternatives and equivalents.



NYC Health

Shortages and weather most frequent problems hospitals and networks reported for deliveries during emergencies

Network hospitals (n = 40), Independent hospitals (n = 14)



For all items, Cardinal Health, Owens & Minor and Medline are list as the top primary suppliers for networks and independent hospitals

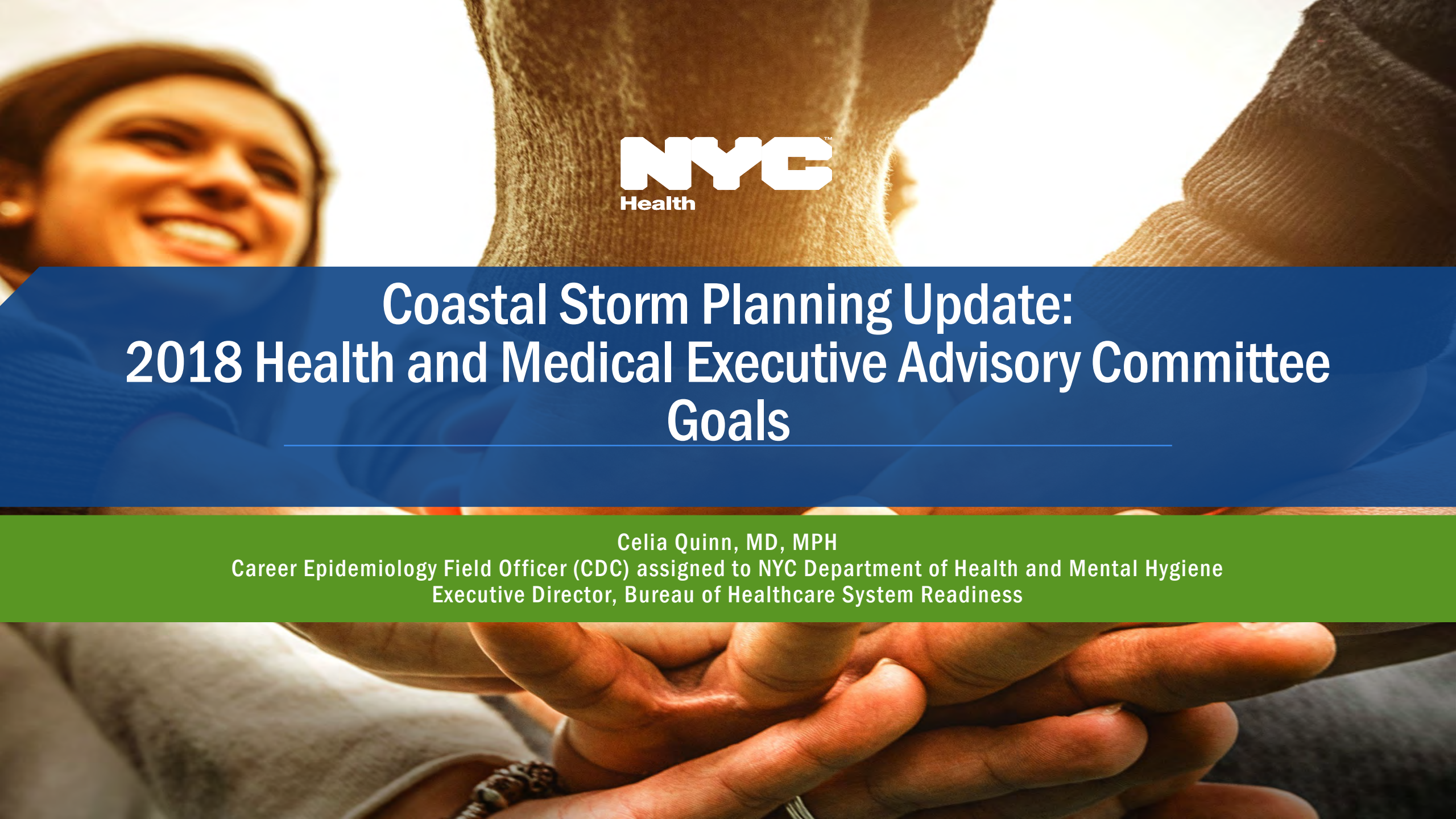
Primary Distributor of Supplies, considering each item (in rank order)	
Network Hospitals	Independent Hospitals
Cardinal Health	Cardinal Health
Owens & Minor	Medline
AmeriSourceBergen	Metro Blood Services
Praxair, Inc.	Praxair, Inc.
New York Blood Center	Owens & Minor
Hill-Rom	Airgas
Metro Blood Services	AmeriSourceBergen
Northwell CEMS	Hill-Rom
Airgas	Concordance
Stericycle	Stryker

NYC Health

Supply chain integrity next steps

- Report for review by coalition members
- More in depth discussion of the meaning of results
- Presentation to HMExec
- Coalition resource sharing workshop

BP1 Facility Profile Application: Bed Shortfalls – HMExec Priority 1



Coastal Storm Planning Update: 2018 Health and Medical Executive Advisory Committee Goals

Celia Quinn, MD, MPH
Career Epidemiology Field Officer (CDC) assigned to NYC Department of Health and Mental Hygiene
Executive Director, Bureau of Healthcare System Readiness

2018 Coastal Storm Goals

1. Improve NYC healthcare facility data and reporting on coastal storm activities in the Facility Profile Application; achieve 100% compliance by 3/31/2018
2. Increase receiving capacity in nursing homes by working directly with select nursing homes to develop operational plans to support a minimum of 20% surge
3. Increase receiving capacity in hospitals to accept patients from other hospitals as well as community members impacted by evacuations
4. Use system-wide exercises to define and improve healthcare system capability for evacuation and surge in NYC

Goal 1: Facility Profile Application Compliance

Methods to Improve FPA Compliance

- Dear Administrator Letter (DAL) regarding coastal storm planning requirements for NYC facilities released by NYS DOH January 2018
  - Set deadline of March 30 for completion of FPA
  - Outlined requirements for compliance
- State Health offered live and recorded webinars to train facilities on how to use the FPA
- State Health and NYC DOHMH presented at existing forums to raise awareness
- NYC DOHMH sent DAL, training information, and additional resources by email through program contacts
- NYS DOH Office of Primary Care and Health Systems Management followed up with facilities that did not complete the requirements by the deadline

Technical Assistance for FPA Compliance

- **To support facilities to meet compliance, NYS DOH provided additional FPA training to 15 NYC DOHMH staff**
- **NYC DOHMH FPA team conducted proactive outreach to every hospital, nursing home, and adult care facility in NYC**
  - Outreach started early February
  - Made over 500 phone calls
  - Referred facilities to NYS DOH for additional assistance

FPA Compliance Project Results

FPA Project Outcomes

- More complete picture of send and receive arrangements across all facility types
- Set of recommendations for improving usability of the FPA
- Increased capacity in local health department for supporting facility completion of planning requirements
- Baseline against which to measure future interventions aimed at improving overall evacuation capability

Goal 1: Facility Profile Application Data

Arrangement Shortfall

- **Occurs when a sending facility has fewer beds in arrangements than their estimated Population to Evacuate**
  - **Population to Evacuate:** estimated number of patients that will need evacuation, after rapid discharge and other methods to reduce census
  - **Population Arrangement Ratio (PAR):** Proportion of beds in active arrangements, out of the PTE
  - Arrangement Shortfall occurs when PAR < 1
- **Calculated by subtracting the beds in active arrangements from the PTE estimate**

Arrangement Shortfall Estimate based on reported Average Census

Facility Type	Cumulative Shortfall Estimate, number of beds						Total average census	PAR*
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	All Zones	All Zones
Hospital	256	857	857	1549	2038	2217	6139	64%
NH	1647	2281	3038	4436	7243	8292	16041	48%
ACF	519	430	594	737	857	951	5039	81%
Totals	2422	3568	4489	6722	10138	11460	27219	58%

* Population Arrangement Ratio (PAR) here is calculated as the proportion of beds for which there exists an active *primary or network* arrangement.

Arrangement Shortfall Estimate based on reported Staffed Capacity

Facility Type	Cumulative Shortfall Estimate, number of beds						Total average census	PAR*
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	All Zones	All Zones
Hospital	760	1643	1643	2792	3905	4105	8027	49%
NH	2470	3128	3913	5551	8582	9690	17439	44%
ACF	617	542	807	1090	1236	1356	5444	75%
Totals	3847	5313	6363	9433	13723	15151	30910	51%

* Population Arrangement Ratio (PAR) here is calculated as the proportion of beds for which there exists an active *primary or network* arrangement.

Capacity Shortfall

- **Occurs when the number of patients needed to evacuate exceeds the total amount of available surge capacity in receiving facilities**
  - Receiving facilities report “non-traditional” surge capacity on the Critical Asset Survey
  - Available capacity is reduced by active primary arrangements
  - Available capacity is NOT reduced by active network arrangements
- **Capacity Shortfall is calculated by subtracting the excess receiving capacity from the arrangement shortfall**

Total Reported Non-traditional Receiving Capacity

Facility Type	Total Reported Receiving Capacity
Hospital	2149
Nursing Home	3364
Adult Care Facility	2038
Total	7551

Table: Max Capacity to Receive is tabulated by adding the non-traditional surge capacity reported by all the receiving facilities in each facility type.

Receiving Capacity Corrected for Arrangements

Facility Type	Total Reported Receiving Capacity	Active Primary Arrangements	Active Network Arrangements	Total Remaining Receiving Capacity
Hospital	2149	723	885	541
Nursing Home	3364	2147	620	597
Adult Care Facility	2038	1560	123	355
Total	7551	4430	1628	1493

Closing the Gap: Number of Additional Surge Beds Needed Per Facility (by Type)

Estimate of per facility capacity needed to eliminate capacity shortfall for **all 6 evacuation zones**, based on average census estimate of population to evacuate.

Total (6 zone) capacity shortfall estimate by facility type		Additional receiving capacity needed per receiving* facility
Hospital	2070	63
Nursing Home	8138	80
Adult Care Facility	709	21
Totals	10917	65

*Receiving facilities are all those facilities not located in any evacuation zone.

Closing the Gap: Number of Additional Surge Beds Needed Per Facility (by Type)

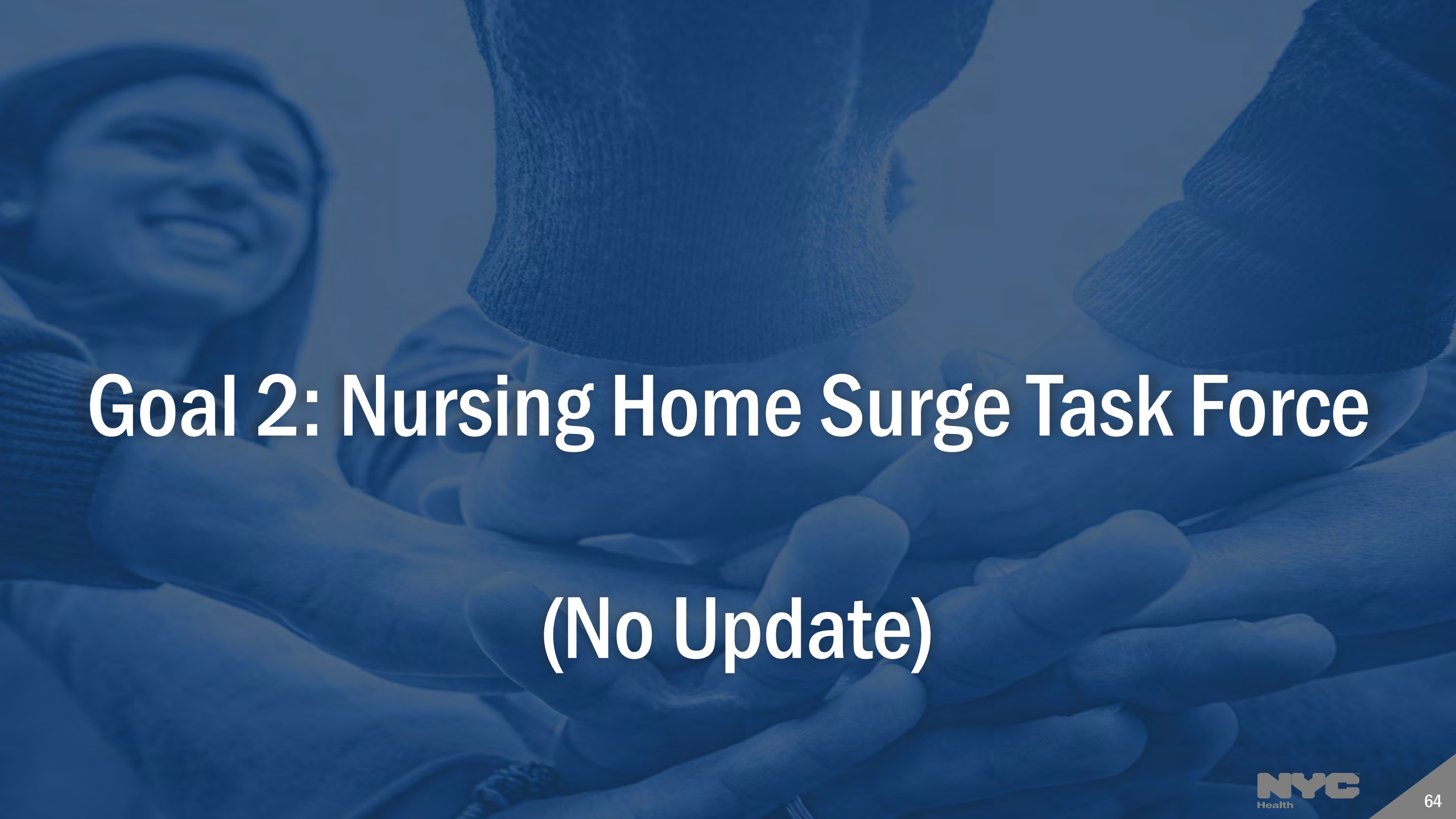
Estimate of per facility capacity needed to eliminate capacity shortfall for **evacuation zones 1 through 3**, based on average census estimate of population to evacuate.

	Total (6 zone) capacity shortfall estimate by facility type	Additional receiving capacity needed per receiving facility
Hospital	710	22
Nursing Home	2884	28
Adult Care Facility	352	10
Totals	3946	24

*Receiving facilities are all those facilities not located in any evacuation zone.

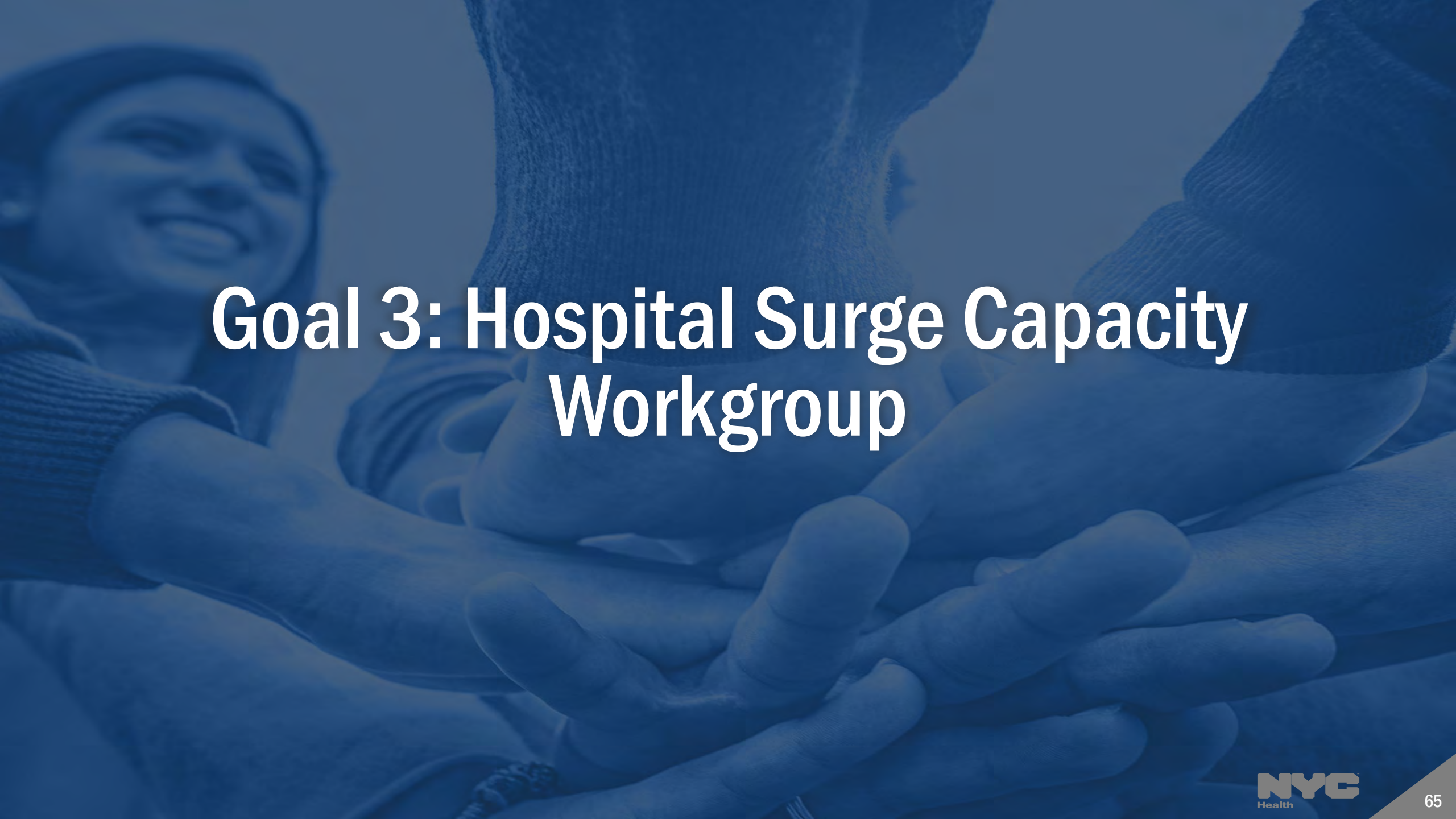
Next Steps

- **Continued improvement of FPA**
  - 2019 version expected to be “all hazard”; facilities will be able to document arrangements for other event types
- **Continued collaboration between NYS DOH and NYC DOHMH to support facilities to complete coastal storm planning and reporting requirements**
- **Identify interventions to reduce estimated shortfall and increase overall (citywide) Population Arrangement Ratio**
- **Monitor impact of interventions using FPA data**



Goal 2: Nursing Home Surge Task Force

(No Update)



Goal 3: Hospital Surge Capacity Workgroup

Accomplishments

GREATER NEW YORK HOSPITAL ASSOCIATION

555 WEST 57TH STREET · NEW YORK, NY 10019 · T (212) 246-7100 · F (212) 262-6350 · WWW.GNYHA.ORG · PRESIDENT, KENNETH E. RASKE

New York City Community Evacuation and Sheltering Operations and Implications for Hospitals and Health Systems

May 2018

The 2018 North Atlantic Coastal Storm Season officially begins June 1, with the greatest potential for storms in our region from August through October. While the unprecedented 2017 Coastal Storm Season did not directly affect the New York region, it underscored the severity of such storms and the need for our region to be fully prepared. For facilities located outside of evacuation zones, patient surge planning should include receiving patients from evacuating health care facilities, as well as medically vulnerable community members living in evacuation zones. Based on current operational plans, such community members could be brought to a hospital during the pre-event phase, or post-event, so hospital patient surge plans should account for

Resources that may be helpf
(DOH) Healthcare Facility
Document for the 2018 Coast
System. NYSDOH will host
June 26th from 1:00pm-3:00
completed via NYSDOH
review the Patient Evacuati
transportation needs develop
Operations Overview, which

The New York City Shelte
New York City (NYC) resi
Evacuation Center if they ha
Evacuation Centers. Once at
be evaluated and recommend
or Special Medical Needs S
usually located in a school or
a Hurricane Shelter but is loc
needs. An SMNS is for evacu
or an Accessible Shelter, but
to impact NYC, a searchable
Evacuation Centers and shelte

Special Medical Needs S
In a coastal storm scenario,
shelters assist individuals wi
monitoring of vital signs. Cli

GNYHA is a dyna
mission—helping

DEVELOPING A SURGE PLAN TO ACCOMMODATE MEDICALLY VULNERABLE COMMUNITY MEMBERS

555 WEST 57TH STREET, NEW YORK, NY 10019 • T (212) 246-7100 • F (212) 262-6350 • WWW.GNYHA.ORG • PRESIDENT, KENNETH E. RASKE

Coastal storms and other hazards threaten the New York region and could necessitate the evacuation of individuals living in designated evacuation zones, as well as patients or residents in health care facilities in the same zones. While most jurisdictions have robust sheltering plans that include Special Medical Needs Shelters (SMNS), these facilities generally provide only basic medical care, such as oxygen administration, wound care, and the monitoring of vital signs.

Because of this limitation, health care facilities outside evacuation zones or in higher evacuation zones (i.e., New York City's Evacuation Zones 5 and 6) are advised to have surge plans to accommodate medically vulnerable community members living in evacuation zones and hospital patients who were evacuated from other facilities. Since medically vulnerable community members could be brought to a hospital before or after the storm, hospital surge plans should account for receiving individuals in both timeframes. While predicting the acuity level of medically vulnerable community members is difficult, based on previous experiences, many of them will require skilled nursing level care.

This document is designed to help health care facilities—specifically hospitals—modify their existing surge plans for the purposes of accommodating medically vulnerable community members. Five sections follow:

1. Activation, Integration, and Scalability of the Surge Plan for Medically Vulnerable Community Members
2. Surge Space
3. Equipment and Supplies
4. Staffing
5. Communications

Each topic area includes points for consideration when developing and/or modifying a facility's plans, and specific examples adapted from actual facility plans.

ACKNOWLEDGEMENT

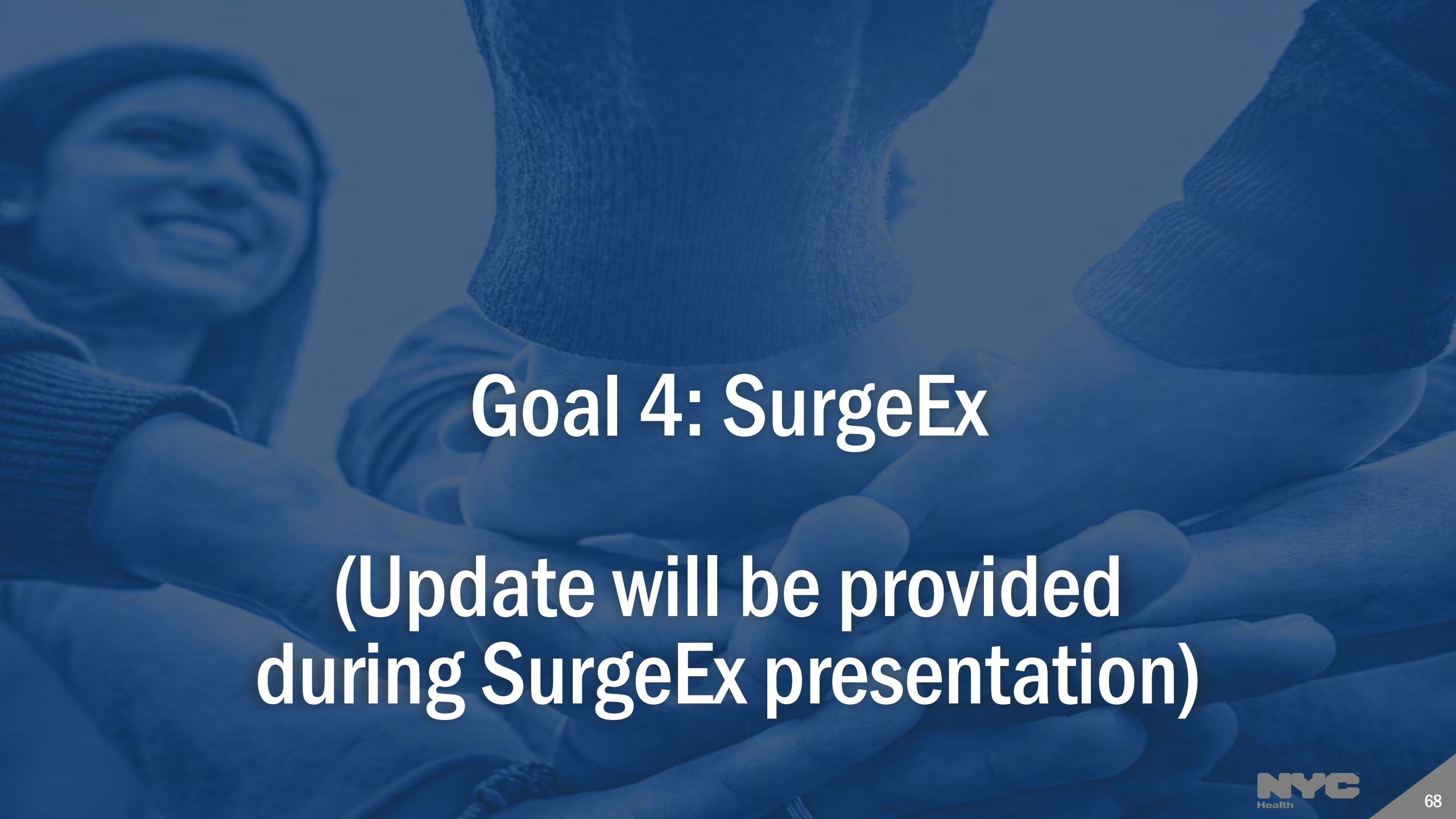
GNYHA thanks MediSys Health Network for sharing their Skilled Nursing Facility Patient Surge Response Plan, which their staff developed based on experiences with medically vulnerable community members during Hurricanes Irene and Sandy. This guidance document directly incorporates information from the MediSys plan.

GNYHA is a dynamic, constantly evolving center for health care advocacy and expertise, but our core mission—helping hospitals deliver the finest patient care in the most cost-effective way—never changes.

- Comprehensive Memo sent out mid-May – *New York City Community Evacuation and Sheltering Operations and Implications for Hospitals and Health Systems*
- Webinar held in late May with City and State Agencies involved in Community Evacuation and Sheltering Operations *(recording available on GNYHA website)*
- Guidance Document: Developing a Surge Plan to Accommodate Medically Vulnerable Community Members

Next Steps

- **Ongoing discussions with CHCANYS, DOH, DOHMH, FDNY, NYCEM, and REMSCO related to development of an alternative ambulance destination policy during emergency events.**
  - Would enable low acuity 911 patients to be brought to pre-designated, comprehensive FQHCs sites for definitive care during emergency events, decreasing pressure on NYC EDs during and immediately after emergencies.
- **For 2019 storm season plan to build upon NYCEM nursing home model to identify and work with hospitals that have significant surge space available**



Goal 4: SurgeEx

(Update will be provided during SurgeEx presentation)

Questions?

SurgeEx: BP1 Report-out and Lining it up for BP1 SUPP – HMExec Priority 2

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

SurgeEx 2018 Functional Exercise Findings, April 4, 2018 Functional Exercise

- Start Ex census in 22 evacuating hospitals: 6,035
  - After 3 hours of exercise play:
    - Discharged 30% of initial census
    - Sent 50% of initial census to receiving hospitals
    - **Remaining patients** in evacuating hospitals: 20% of initial census

- Start Ex census in 33 receiving hospitals: 8,520
  - After 3 hours of exercise play
    - Discharged 23% of initial census, created room to take patients
    - Accepted from sending hospitals about 30% of initial census
    - Total **increased census** in receiving hospital: 7% of initial

NYC Health

SurgeEx 2018 Discussion Findings

- NYC hospitals are able to rapidly surge to create additional space for evacuating patients
- If given additional time, the remaining patients in evacuating hospitals probably could be accommodated in receiving hospitals
- A limitation may be available transportation resources – this was not tested well during this exercise

NYC Health

What is SurgeEx?

- ASPR Annual Federal Requirement (Coalition Surge Test, "CST")
  - Last year was informative for "baseline"
- Tests NYC HCC's acute care sector's ability to surge 20%+ in response to a surge event
  - ExPlay will focus on **activities networks and hospitals can manage themselves prior to requesting coordination and resources from city**
  - Evacuation of 22 hospitals, Zones 1-6
  - Ability of receiving hospitals to respond to surge
- Scenario: Coastal Storm Incident
- Low/No-notice Exercise

NYC Health

SurgeEx Goals

- The CST is intended to improve health care system response readiness.
  - Tests functional surge capacity and identifies gaps in surge planning
  - Tests ability to perform the tasks with existing on-site staff without excessive guidance or prompting
  - Tests if evacuating facility knows who to contact in evacuation scenario, and ability to reach partners on a moment's notice

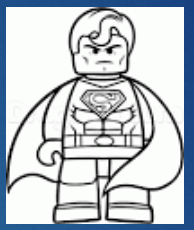
- The CST tests the overall health care system response.
  - Simulates an evacuation, but can demonstrate:
    - Emergency Operations Coordination
    - Information Sharing
    - Medical Surge Capacity

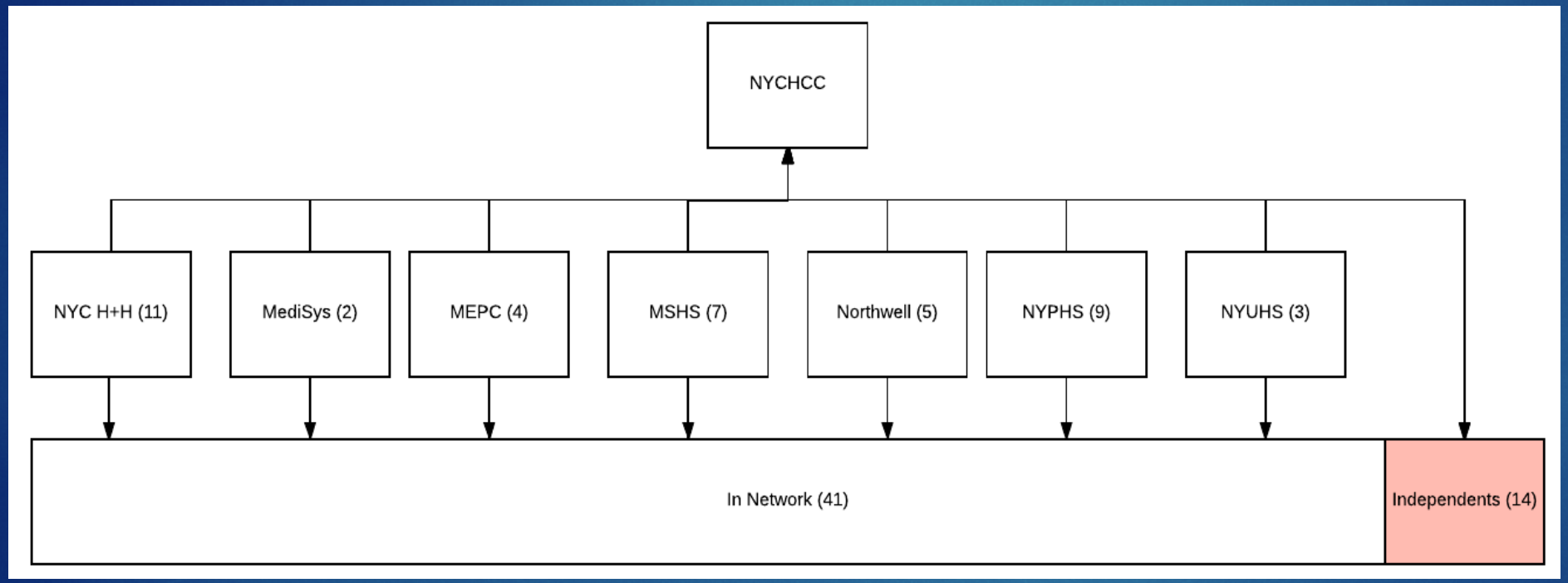
SurgeEx Elements

Element	Participants	Time	Outcome
Functional Exercise (FE)	• 55 hospitals (incl. independents) • 7 Networks • City/State Agencies	• 2nd or 3rd week of Mar 2019 • ~3 hours • At facilities/network locations	• Sending, receiving and bed matching data (quantitative)
Facilitated Discussion	• 55 hospitals (incl. independents) • 7 Networks • City/State Agencies	• Early April 2019 • 60 to 90-min • At EPS	• Identify gaps/issues in surge capacity (qualitative)
After-Action Discussion	• Health and Medical Executive Committee (HM Exec)	• May 2019	• Address citywide surge capacity gaps and concerns

NYC Health

SurgeEx Staffing





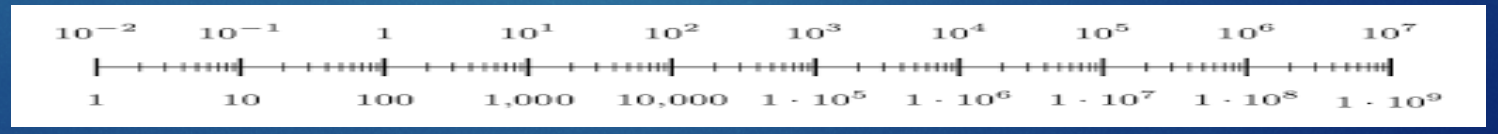
Network-Level:
- 1 trusted insider
- 1 evaluator
- players

Facility-Level:
- 1 trusted insider
- 1 evaluator*
- players

*differing tasks EVAC vs. RECEIVING

Surge Ex Planning Timeline

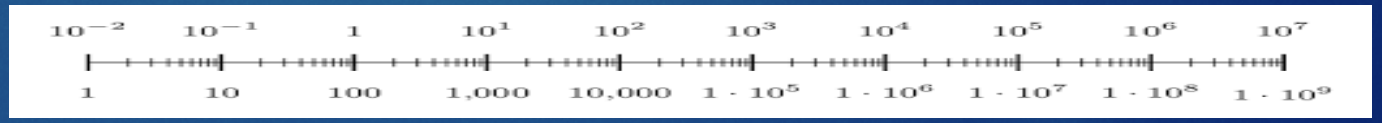
- IPM (October 9th, 2018)
  - Update to NYC HCC general membership at Oct 25th EPS
- MPM (January 8, 2019)
  - Update to NYC HCC general membership at Feb 14th EPS
- FPM (February 20, 2019)



NYC Health

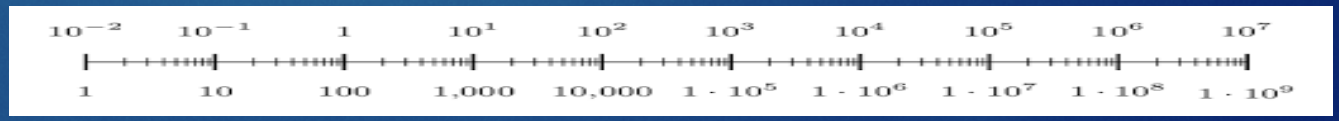
Planning and preparations for SurgeEx 2019

- Planning team meetings and participants
- Pilot nursing home play
- REMSCO
  - Address transportation and TAL issues, Feb 14, 2019 EPS, play in “simcell”
- Stronger data analysis
- Call down notification
- Steering Committee



Steering Committee for SurgeEx

- Goal: Provide input to make Surge Ex as beneficial to the NYC HCC as possible over the next 4 years. Not the same as the planning team for Surge Ex 2019.
- Members
  - ~8, from sectors of NYC HCC
  - NYC HCC Leadership Council members or their nominees
  - provide input for the exercise planning team
  - determine if/how to include all sectors by the fifth exercise
- Service
  - over this and the next 3 years (4 exercises)
  - 2-3 meetings per year, roughly quarterly
  - Credit for deliverables



NYC Health

Questions?

DPRUITT@HEALTH.NYC.GOV

347-396-2699

Networking Break

NYCHCC - Election for Leadership Council Governance Board Seats

- **William Lang**, Director, Hospitals and Coalitions, Bureau of Healthcare System Readiness, NYC Department of Health and Mental Hygiene
- **Aaron Belisle**, Director, Emergency Planning Unit, NYC Department of Health and Mental Hygiene

Networking Lunch

Mass Casualty Incidents (MCIs) & Mass Fatality Planning

NYC Health

New York City Efforts to Improve Pre-Hospital-to-Hospital Communication During Mass Casualty Incidents

Presenters

Brad Kaufman, MD, MPH, FACEP, FAEMS
First Deputy Medical Director, FDNY

Jenna Mandel-Ricci, MPH, MPA
Vice President, Regulatory and Professional Affairs, GNYHA

Michael Redlener, MD, FAEMS
Medical Director for EMS and Disaster Preparedness, Department of Emergency Medicine, Mount Sinai St. Luke's and Mount Sinai West

Tim Styles, MD, MPH,CDC Career Epidemiology Field Officer
Medical Director, Bureau of Healthcare System Readiness, NYC DOHMH

NYC 911 System

4000+ 911 medical calls per day

EMS System:
FDNY units
Hospital-based units
Volunteer/Private companies

50 911 receiving hospitals

How GNYHA, DOHMH, and FDNY Relate to NYC Hospitals

GREATER NEW YORK HOSPITAL ASSOCIATION GNYHA

FIRE DEPARTMENT CITY OF NEW YORK

NYC Health

All NYC hospitals are Association members

FDNY is the 911 pre-hospital partner to NYC hospitals

DOHMH is the recipient of several NYC healthcare preparedness grants from ASPR

How Incidents Become MCIs

In NYC, an MCI is defined as a event with the potential to produce 5+ patients

Declaring an MCI triggers the arrival of particular resources, and communication with area hospitals

FDNY Bureau of [redacted] Mass Casualty Incident Response Matrix

FDNY
January 9, 2018

CM, CHAPTER 7 ADDENDUM 2 / EMS OGP 109-12
BUREAU OF EMS MCI RESPONSE MATRIX (*Reference Material*)

MCI Signal	Type of Signal	BLS	ALS	Haz-Tac Amb.	Rescue ALS Amb.	Cond. Officer	Haz-Tac Officer	Dep. Chief	Div. Chief	OMA MD	MRTU*	MERV*	METU	LSU	HTO
21	Report of Fire / All Hands Fire (10-75)	1	1			1		A							
22	2nd Alarm	4 D	1		1	3 D	1	1			1	1		1	1 A,G
23	3rd Alarm	5 D	2		1	4 D	1	1	1	B	1	1		1	1 A,G
24	4th Alarm	6 D	2		1	5 D	1	2	1	1	1	1		1	1 A,G
25	5th Alarm or Greater	7 D	2		2	6 D	1	2	1	1	1	1		1	1 A,G
27	Medical Facility Incident	1	1			1	1	2	A,B	1	STBY	1	1	1	
28	Correctional Facility Incident	2	1			2		2	A,B	1	STBY	1		1	
29	Report of Explosives	1	0			1	NTFY	NTFY				STBY			
30	Explosion	2	1		1	2	1	1	B	1	STBY	1	STBY E	1	
31	Rapid Transit/Rail Incident	4	2		1	4	1	2	1	1	1	1	1	2	1 A,G
32	Ground Transport Incident	2	1			1		NTFY E		F		STBY		1	
33	Structural Collapse	3	1		1	2	1	1	B	1	STBY	STBY	STBY E	1	
34	Construction Incident	2	1		1	1	1	1		1	STBY	STBY	STBY E	1	1 A,G
35	Confined Space/Trench Rescue	2	2		1	2	1	1	B	1					
36	Tunnel Incident (Non-rail)	2	1		1	2	1	1				STBY	STBY E	2	
38	Marine/Harbor Incident	2	1		1	1	1	1	B		STBY	STBY		1	1 A,G
40	Aircraft Incident	6	4	1 B, 1 A	1	6	1	3	1	1	1	1	1	2	1 A,G
42	Civil Disturbance	1	0			1		1				STBY			
43	Hostage Incident	1	0			1		NTFY A							
44	Power Failure/Blackout	1	0			1		NTFY A				STBY			
50	Active Shooter Incident	3	0			1		1	1	1	STBY	STBY	STBY	STBY	1 A,G
59	Other MCI (as indicated)	1	0			1		NTFY A							
76	High Rise Fire - Commercial	2	1		1	2	1	1	B		1	1		1	
77	High Rise Fire - Residential	2	1		1	2	1	1	B		1	1		1	
80 C1	Haz-Mat	1	0	1 B		1	1	NTFY A							

Note ***MCI Signals 55, 57 or 58 are as listed in the IAP or as directed, as outlined in EMS OGP 106-24.***

A) Response required for any incident with five (5) or more confirmed patients. B) Confirmed notification required. C) Units in addition to the units assigned based on alarm level. D) One BLS ambulance and Conditions Officer are to staff the MERV or MRTU assigned to the Rehab Unit. E) Response required for any incident with ten (10) or more stretcher patients. F) Response required for any incident with twenty (20) or more patients. G) To designated hospital location(s) as directed.

****- When both the MRTU or MERV are available in a division, the MRTU shall be assigned first.***

10 Code	Type of Signal	BLS	ALS	Haz-Tac Amb.	Rescue ALS Amb.	Cond. Officer	Haz-Tac Officer	Dep. Chief	Div. Chief	OMA MD	MRTU	MERV	METU	LSU	HTO
60	Major Response	2	1		1	3	1	1	1	1	1	1		1	1 G
66	Missing/Trapped FDNY Member	1 C	1 C		1 C	2	1 C	2	1	1					1 G

Recognizing an MCI Can Be Challenging

October 31, 2017 Vehicle Ramming Attack

- Multiple 911 calls received from individuals along a mile-long stretch of the bike path next to the West Side Highway
- Took time to determine that these isolated incidents were actually part of a single event, and to declare an MCI

MCIs Notification Protocol Before August 2016

The FDNY officer, upon arriving on scene, transmitted the necessary information about the incident to FDNY Emergency Medical Dispatch (EMD), which, in turn, contacted the Emergency Departments (ED) of the 3 closest hospitals.

- If none of these hospitals was designated as a Level 1 or Level 2 Trauma Center, then the closest trauma center was also contacted.

After receiving the alert about the MCI, ED staff would be asked how many critical and non-critical patients they could accept at that time. During large or complex MCIs, EMD would contact additional hospitals regarding their ability to receive patients.

- The hospital staff member responsible for answering the EMD assessment calls, and how that staff person determined the number of critical and non-critical patients their facility could receive varied by location.
- Responses often included “zero” or “unlimited”.

Workgroup: Assessment of Hospital Bed Availability During Mass Casualty Incidents

- Workgroup Purpose
  - Examine how hospital bed availability is assessed during Mass Casualty Incidents (MCI)
  - Improve communication among FDNY and area hospitals during MCIs
- Co-led by FDNY and GNYHA, began meeting monthly March 2016
  - Comprised of hospital representatives with EMS and hospital experience, FDNY Medical Affairs and Operations, and NYC Emergency Management; work took on greater urgency after June 2016 Pulse Nightclub incident
  - Workgroup members explored existing New York City MCI response processes, identified areas for improvement, and reviewed information FDNY collected regarding systems and methods used in other major U.S. cities.

Assessment of Hospital Bed Availability Workgroup: **Two Recommendations**

1. Develop **MCI levels** based on the severity or potential severity of a given incident.

2. Create **fixed patient allotments.**
   - FDNY and each 911-receiving hospital agree on a maximum number of critical and non-critical patients that the hospital must be prepared to accept for each MCI levels.
     - These numbers inform internal hospital planning and FDNY patient dispersion decisions.
     - Similar model used in other large jurisdictions including: Alameda County, CA; Houston, TX.

Four MCI Levels

Level	Description	Example
Level A *(Minimal to Moderate)*	This is a relatively static incident producing or with the potential to produce a small number of critical patients. Hospitals in the immediate vicinity of the MCI (minimum of 1) will receive a call from EMD and should prepare to accept patients up to their Level A fixed allotment.	motor vehicle accident, residential fire
Level B *(Significant)*	This is a relatively static incident producing or with the potential to produce significant numbers of critical patients. Hospitals in a broader vicinity of the MCI (minimum of 3) will receive a call from EMD and should prepare to accept patients up to their Level B fixed allotment.	bus accident
Level C *(Major)*	This is a dynamic incident producing or with the potential to produce significant numbers of critical patients. Hospitals in a still broader vicinity of the MCI (minimum of 5) will receive a call from EMD and should prepare to accept patients up to their Level C fixed allotment.	mass shooting, building explosion/collapse
Level D *(Catastrophic)*	It is acknowledged that a catastrophic event will overwhelm the healthcare system. Hospitals will be expected to redirect all efforts to incident response. Hospitals cannot rely upon a notification call from EMD for such an event; instead they should rely on notification sources such as NYCEM Watch Command hospital radio transmittals and All Call email notifications, as well as information from credible media outlets. All hospitals should prepare to receive patients.	World Trade Center attack, intentional release of poison gas in subway system

Fixed Allotment Numbers for MCI Levels A-C

Average Daily ED Visits	Critical Patients		Non-Critical Patients	
	Non-Trauma Hospital	Trauma Hospital (Level 1 or 2)	Non-Trauma Hospital	Trauma Hospital (Level 1 or 2)
LEVEL A (Moderate)				
≤200	1	NA	20	NA
>200	2	3	30	30
LEVEL B (Significant)				
≤200	2	NA	30	NA
>200	4	6	50	50
LEVEL C (Major)				
≤200	4	NA	40	NA
>200	6	9	70	70

Level D: Prepare for more than Level C numbers!

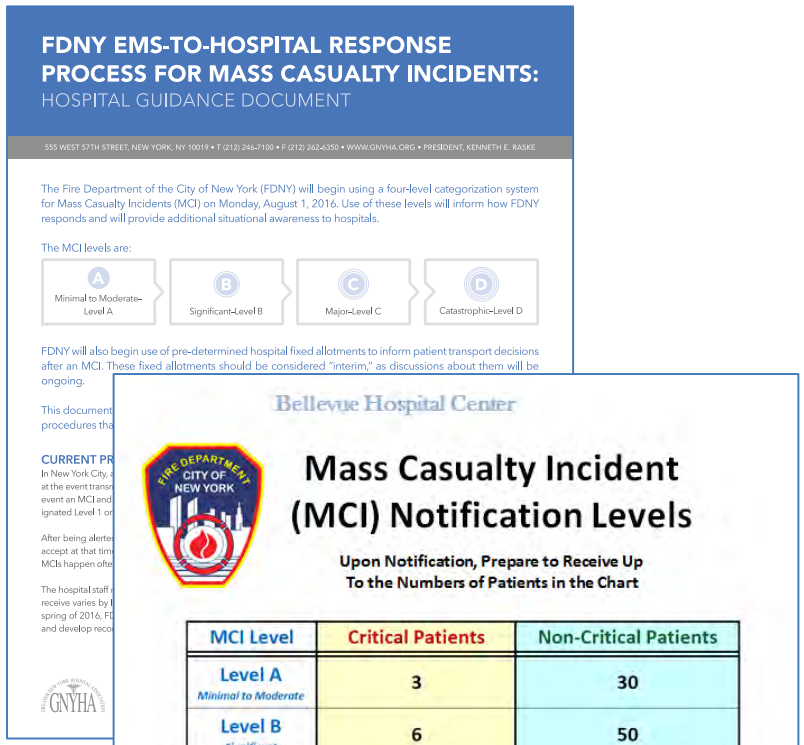
Methodology

- Base: Average ED daily visits *(Source: NYC DOHMH syndromic surveillance)*
  - Used to create two bands – under/over 200 average daily ED visits
- Slightly higher numbers applied to Level 1 and Level 2 Trauma Centers

NYC Hospital Emergency Radio Network

- Since 1999, all 911-receiving hospitals in NYC have been connected to NYC Emergency Management's Watch Command via an 800-megahertz radio network.
  - The radio network serves as a communication mode of last resort.
  - Depending on the facility, radios are typically kept within the Emergency Department, a security checkpoint, or within any area that is monitored 24/7.
- January 2016, Watch Command began transmitting outgoing informational messages to all NYC hospitals for any incident that is deemed a 10-60 (major response) by FDNY.
- As a result of a jointly-led workgroup, MCI Levels C and D were added to this notification
  - There are generally 6-12 10-60's per year and no Level C or D's this year.
  - Serves as a situational awareness tool for all hospitals.

Rollout of New Protocols



FDNY EMS-TO-HOSPITAL RESPONSE PROCESS FOR MASS CASUALTY INCIDENTS:
HOSPITAL GUIDANCE DOCUMENT

555 WEST 57TH STREET, NEW YORK, NY 10019 • T (212) 246-7100 • F (212) 262-6350 • WWW.GNYHA.ORG • PRESIDENT, KENNETH E. RASKE

The Fire Department of the City of New York (FDNY) will begin using a four-level categorization system for Mass Casualty Incidents (MCI) on Monday, August 1, 2016. Use of these levels will inform how FDNY responds and will provide additional situational awareness to hospitals.

The MCI levels are:

A Minimal to Moderate–Level A | B Significant–Level B | C Major–Level C | D Catastrophic–Level D

FDNY will also begin use of pre-determined hospital fixed allotments to inform patient transport decisions after an MCI. These fixed allotments should be considered "interim," as discussions about them will be ongoing.

This document
procedures tha

CURRENT PR
In New York City,
at the event transp
event an MCI and
ignated Level 1 or

After being alerte
accept at that tim
MCIs happen ofte

The hospital staff
receive varies by
spring of 2016, FD
and develop reco

GNYHA

Bellevue Hospital Center

FIRE DEPARTMENT CITY OF NEW YORK

Mass Casualty Incident (MCI) Notification Levels

Upon Notification, Prepare to Receive Up To the Numbers of Patients in the Chart

MCI Level	Critical Patients	Non-Critical Patients
Level A *Minimal to Moderate*	3	30
Level B *Significant*	6	50
Level C *Major*	9	70
Level D *Catastrophic*	Prepare for more than the Level C numbers!	

- Held briefing with all NYC hospitals in July 2016 – introduced draft protocols and solicited feedback
- Finalized guidance document and MCI posters
- Letters, guidance document, and posters sent by FDNY to all 911-receiving hospitals in late July; redistributed by GNYHA later that week
- New protocols went into effect **Monday, August 1, 2016**

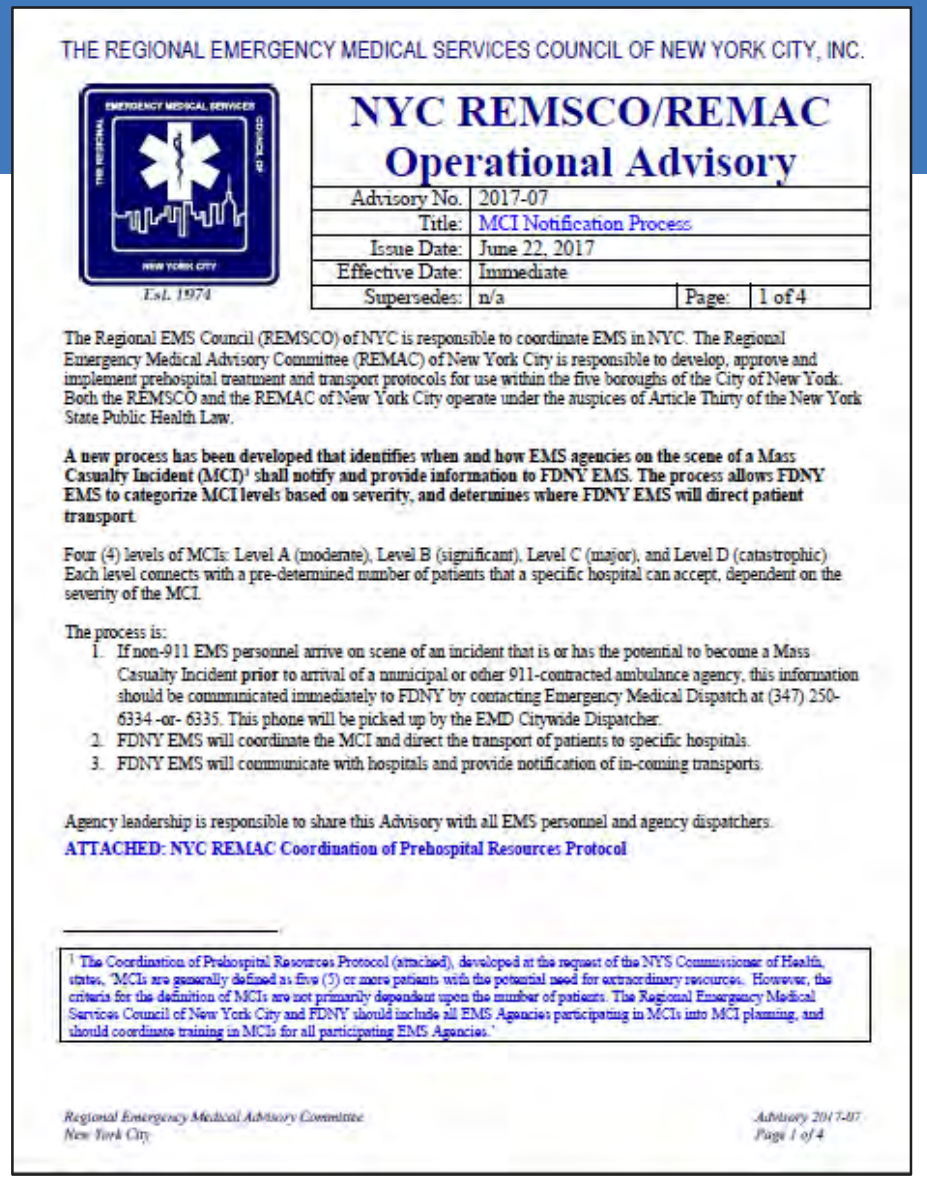
FDNY Implementation

- Emergency Medical Dispatch Order and Training
- Determinations of MCI level, escalation, and de-escalation determined by Citywide Dispatcher based on status reports from Medical Branch Director (MBD)
- No change in methodology for relaying ED bed numbers to Medical Branch Director

FIRE DEPARTMENT CITY OF NEW YORK	**EMERGENCY MEDICAL DISPATCH ORDER**	**DATE ISSUED** 07/28/2016 **DATE EFFECTIVE** 08/01/2016 **DO #** 16-008
Subject:	**MCI BED AVAILABILITY**	Page 1 of 3

Communication with Broader EMS Community

- ~40% of NYC ambulances are not operated by FDNY
- Important to educate entire EMS community about this new protocol
- Regional EMS Council of NYC (REMSCO) produced an advisory that was disseminated to all member organizations



THE REGIONAL EMERGENCY MEDICAL SERVICES COUNCIL OF NEW YORK CITY, INC.

Est. 1974

NYC REMSCO/REMAC Operational Advisory

Advisory No.	2017-07		
Title:	MCI Notification Process		
Issue Date:	June 22, 2017		
Effective Date:	Immediate		
Supersedes:	n/a	Page:	1 of 4

The Regional EMS Council (REMSCO) of NYC is responsible to coordinate EMS in NYC. The Regional Emergency Medical Advisory Committee (REMAC) of New York City is responsible to develop, approve and implement prehospital treatment and transport protocols for use within the five boroughs of the City of New York. Both the REMSCO and the REMAC of New York City operate under the auspices of Article Thirty of the New York State Public Health Law.

A new process has been developed that identifies when and how EMS agencies on the scene of a Mass Casualty Incident (MCI)[1] shall notify and provide information to FDNY EMS. The process allows FDNY EMS to categorize MCI levels based on severity, and determines where FDNY EMS will direct patient transport.

Four (4) levels of MCIs: Level A (moderate), Level B (significant), Level C (major), and Level D (catastrophic) Each level connects with a pre-determined number of patients that a specific hospital can accept, dependent on the severity of the MCI.

The process is:

1. If non-911 EMS personnel arrive on scene of an incident that is or has the potential to become a Mass Casualty Incident **prior** to arrival of a municipal or other 911-contracted ambulance agency, this information should be communicated immediately to FDNY by contacting Emergency Medical Dispatch at (347) 250-6334 -or- 6335. This phone will be picked up by the EMD Citywide Dispatcher.
2. FDNY EMS will coordinate the MCI and direct the transport of patients to specific hospitals.
3. FDNY EMS will communicate with hospitals and provide notification of in-coming transports.

Agency leadership is responsible to share this Advisory with all EMS personnel and agency dispatchers.

ATTACHED: NYC REMAC Coordination of Prehospital Resources Protocol

[1] The Coordination of Prehospital Resources Protocol (attached), developed at the request of the NYS Commissioner of Health, states, "MCIs are generally defined as five (5) or more patients with the potential need for extraordinary resources. However, the criteria for the definition of MCIs are not primarily dependent upon the number of patients. The Regional Emergency Medical Services Council of New York City and FDNY should include all EMS Agencies participating in MCIs into MCI planning, and should coordinate training in MCIs for all participating EMS Agencies."

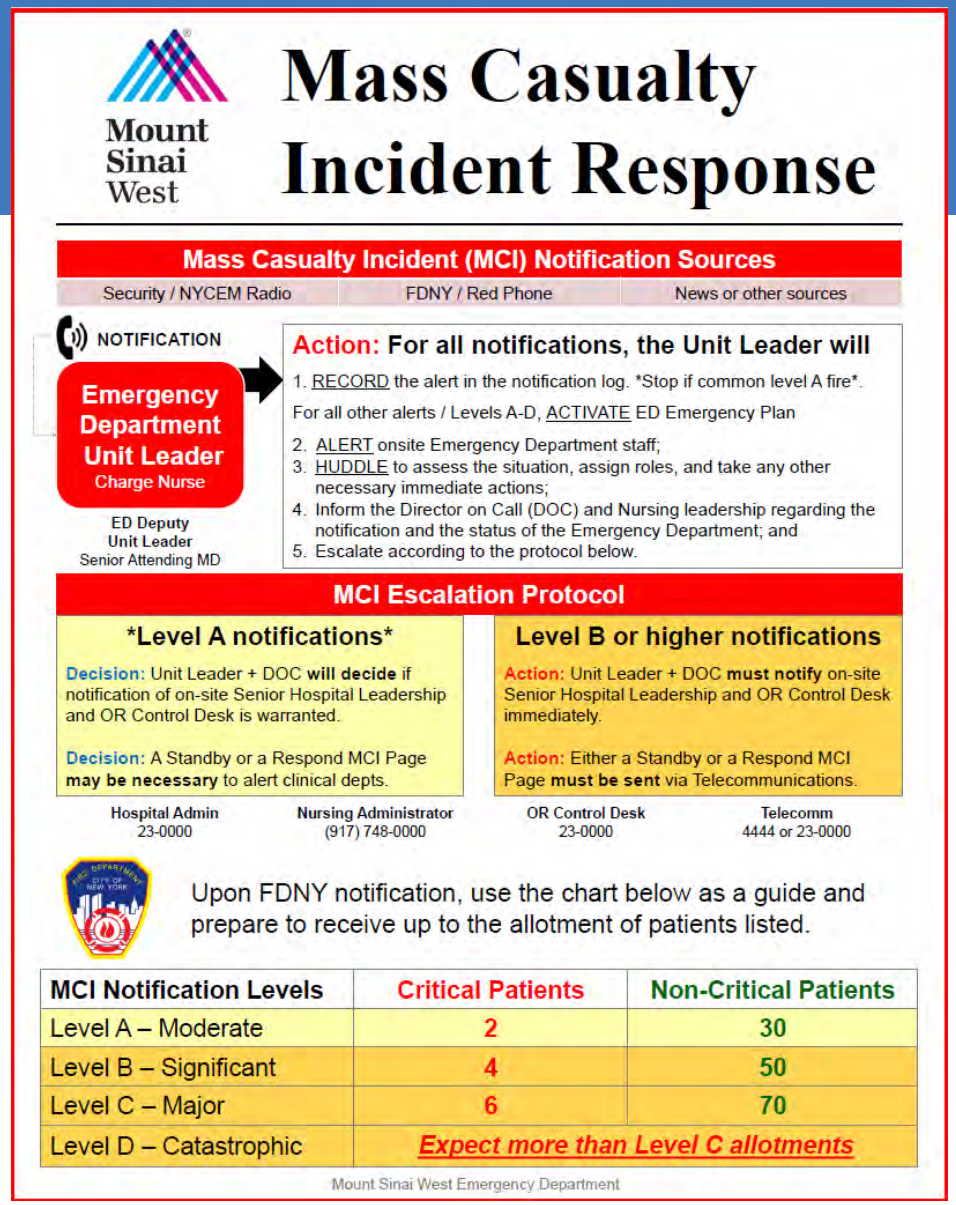
Regional Emergency Medical Advisory Committee New York City *Advisory 2017-07 Page 1 of 4*

Hospital Internal Planning

Hospitals were encouraged to develop internal procedures in response to these new protocols.

Many hospitals have:

- Modified existing MCI response plans and protocols to account for the new notification procedure and MCI levels
- Modified MCI Notification Level posters provided by FDNY to include hospital-specific instructions



Mount Sinai West

Mass Casualty Incident Response

Mass Casualty Incident (MCI) Notification Sources

Security / NYCEM Radio | FDNY / Red Phone | News or other sources

NOTIFICATION

Emergency Department Unit Leader
Charge Nurse

ED Deputy Unit Leader
Senior Attending MD

Action: For all notifications, the Unit Leader will

1. RECORD the alert in the notification log. *Stop if common level A fire*.

For all other alerts / Levels A-D, ACTIVATE ED Emergency Plan

2. ALERT onsite Emergency Department staff;
3. HUDDLE to assess the situation, assign roles, and take any other necessary immediate actions;
4. Inform the Director on Call (DOC) and Nursing leadership regarding the notification and the status of the Emergency Department; and
5. Escalate according to the protocol below.

MCI Escalation Protocol

Level A notifications

Decision: Unit Leader + DOC **will decide** if notification of on-site Senior Hospital Leadership and OR Control Desk is warranted.

Decision: A Standby or a Respond MCI Page **may be necessary** to alert clinical depts.

Level B or higher notifications

Action: Unit Leader + DOC **must notify** on-site Senior Hospital Leadership and OR Control Desk immediately.

Action: Either a Standby or a Respond MCI Page **must be sent** via Telecommunications.

Hospital Admin 23-0000 | Nursing Administrator (917) 748-0000 | OR Control Desk 23-0000 | Telecomm 4444 or 23-0000

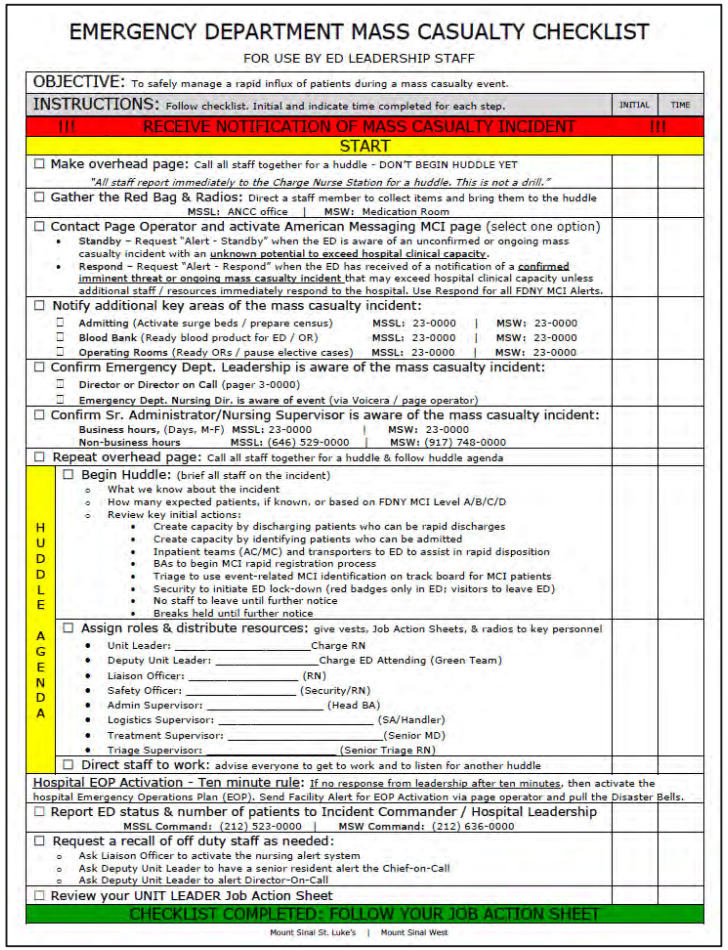
Upon FDNY notification, use the chart below as a guide and prepare to receive up to the allotment of patients listed.

MCI Notification Levels	Critical Patients	Non-Critical Patients
Level A – Moderate	2	30
Level B – Significant	4	50
Level C – Major	6	70
Level D – Catastrophic	*Expect more than Level C allotments*	

Mount Sinai West Emergency Department

Hospital Internal Planning

- Created response checklists for ED and other key clinical departments tied to each MCI level
- Developed pre-set mass notification groups for each MCI level
- Conducted MCI response drills tied to various MCI levels



EMERGENCY DEPARTMENT MASS CASUALTY CHECKLIST

FOR USE BY ED LEADERSHIP STAFF

OBJECTIVE: To safely manage a rapid influx of patients during a mass casualty event.

INSTRUCTIONS: Follow checklist. Initial and indicate time completed for each step. | INITIAL | TIME

!!! RECEIVE NOTIFICATION OF MASS CASUALTY INCIDENT !!!

START

☐ **Make overhead page:** Call all staff together for a huddle - DON'T BEGIN HUDDLE YET
"All staff report immediately to the Charge Nurse Station for a huddle. This is not a drill."

☐ **Gather the Red Bag & Radios:** Direct a staff member to collect items and bring them to the huddle
MSSL: ANCC office | MSW: Medication Room

☐ **Contact Page Operator and activate American Messaging MCI page** (select one option)
- **Standby** – Request "Alert - Standby" when the ED is aware of an unconfirmed or ongoing mass casualty incident with an unknown potential to exceed hospital clinical capacity.
- **Respond** – Request "Alert - Respond" when the ED has received of a notification of a confirmed imminent threat or ongoing mass casualty incident that may exceed hospital clinical capacity unless additional staff / resources immediately respond to the hospital. Use Respond for all FDNY MCI Alerts.

☐ **Notify additional key areas of the mass casualty incident:**
- ☐ **Admitting** (Activate surge beds / prepare census) MSSL: 23-0000 | MSW: 23-0000
- ☐ **Blood Bank** (Ready blood product for ED / OR) MSSL: 23-0000 | MSW: 23-0000
- ☐ **Operating Rooms** (Ready ORs / pause elective cases) MSSL: 23-0000 | MSW: 23-0000

☐ **Confirm Emergency Dept. Leadership is aware of the mass casualty incident:**
- ☐ **Director or Director on Call** (pager 3-0000)
- ☐ **Emergency Dept. Nursing Dir. is aware of event** (via Voicera / page operator)

☐ **Confirm Sr. Administrator/Nursing Supervisor is aware of the mass casualty incident:**
Business hours, (Days, M-F) MSSL: 23-0000 | MSW: 23-0000
Non-business hours MSSL: (646) 529-0000 | MSW: (917) 748-0000

☐ **Repeat overhead page:** Call all staff together for a huddle & follow huddle agenda

HUDDLE AGENDA

☐ **Begin Huddle:** (brief all staff on the incident)
- What we know about the incident
- How many expected patients, if known, or based on FDNY MCI Level A/B/C/D
- Review key initial actions:
  - Create capacity by discharging patients who can be rapid discharges
  - Create capacity by identifying patients who can be admitted
  - Inpatient teams (AC/MC) and transporters to ED to assist in rapid disposition
  - BAs to begin MCI rapid registration process
  - Triage to use event-related MCI identification on track board for MCI patients
  - Security to initiate ED lock-down (red badges only in ED; visitors to leave ED)
  - No staff to leave until further notice
  - Breaks held until further notice

☐ **Assign roles & distribute resources:** give vests, Job Action Sheets, & radios to key personnel
- Unit Leader: _____ Charge RN
- Deputy Unit Leader: _____ Charge ED Attending (Green Team)
- Liaison Officer: _____ (RN)
- Safety Officer: _____ (Security/RN)
- Admin Supervisor: _____ (Head BA)
- Logistics Supervisor: _____ (SA/Handler)
- Treatment Supervisor: _____ (Senior MD)
- Triage Supervisor: _____ (Senior Triage RN)

☐ **Direct staff to work:** advise everyone to get to work and to listen for another huddle

Hospital EOP Activation - Ten minute rule: If no response from leadership after ten minutes, then activate the hospital Emergency Operations Plan (EOP). Send Facility Alert for EOP Activation via page operator and pull the Disaster Bells.

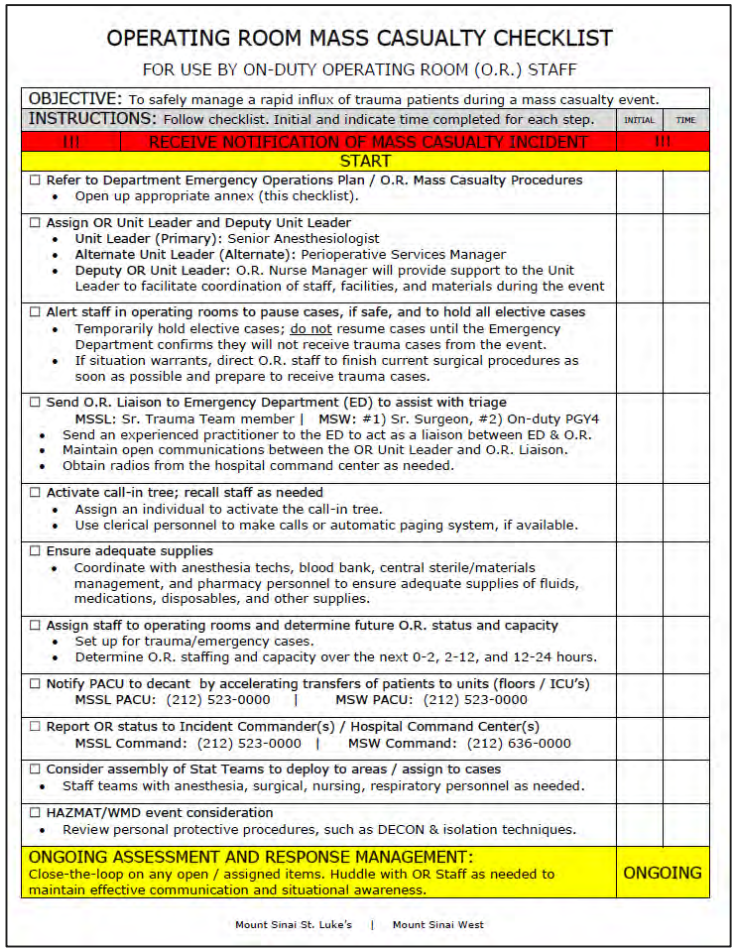
☐ **Report ED status & number of patients to Incident Commander / Hospital Leadership**
MSSL Command: (212) 523-0000 | MSW Command: (212) 636-0000

☐ **Request a recall of off duty staff as needed:**
- Ask Liaison Officer to activate the nursing alert system
- Ask Deputy Unit Leader to have a senior resident alert the Chief-on-Call
- Ask Deputy Unit Leader to alert Director-On-Call

☐ **Review your UNIT LEADER Job Action Sheet**

CHECKLIST COMPLETED: FOLLOW YOUR JOB ACTION SHEET

Mount Sinai St. Luke's | Mount Sinai West



OPERATING ROOM MASS CASUALTY CHECKLIST

FOR USE BY ON-DUTY OPERATING ROOM (O.R.) STAFF

OBJECTIVE: To safely manage a rapid influx of trauma patients during a mass casualty event.

INSTRUCTIONS: Follow checklist. Initial and indicate time completed for each step. | INITIAL | TIME

!!! RECEIVE NOTIFICATION OF MASS CASUALTY INCIDENT !!!

START

☐ **Refer to Department Emergency Operations Plan / O.R. Mass Casualty Procedures**
- Open up appropriate annex (this checklist).

☐ **Assign OR Unit Leader and Deputy Unit Leader**
- **Unit Leader (Primary):** Senior Anesthesiologist
- **Alternate Unit Leader (Alternate):** Perioperative Services Manager
- **Deputy OR Unit Leader:** O.R. Nurse Manager will provide support to the Unit Leader to facilitate coordination of staff, facilities, and materials during the event

☐ **Alert staff in operating rooms to pause cases, if safe, and to hold all elective cases**
- Temporarily hold elective cases; do not resume cases until the Emergency Department confirms they will not receive trauma cases from the event.
- If situation warrants, direct O.R. staff to finish current surgical procedures as soon as possible and prepare to receive trauma cases.

☐ **Send O.R. Liaison to Emergency Department (ED) to assist with triage**
MSSL: Sr. Trauma Team member | MSW: #1) Sr. Surgeon, #2) On-duty PGY4
- Send an experienced practitioner to the ED to act as a liaison between ED & O.R.
- Maintain open communications between the OR Unit Leader and O.R. Liaison.
- Obtain radios from the hospital command center as needed.

☐ **Activate call-in tree; recall staff as needed**
- Assign an individual to activate the call-in tree.
- Use clerical personnel to make calls or automatic paging system, if available.

☐ **Ensure adequate supplies**
- Coordinate with anesthesia techs, blood bank, central sterile/materials management, and pharmacy personnel to ensure adequate supplies of fluids, medications, disposables, and other supplies.

☐ **Assign staff to operating rooms and determine future O.R. status and capacity**
- Set up for trauma/emergency cases.
- Determine O.R. staffing and capacity over the next 0-2, 2-12, and 12-24 hours.

☐ **Notify PACU to decant by accelerating transfers of patients to units (floors / ICU's)**
MSSL PACU: (212) 523-0000 | MSW PACU: (212) 523-0000

☐ **Report OR status to Incident Commander(s) / Hospital Command Center(s)**
MSSL Command: (212) 523-0000 | MSW Command: (212) 636-0000

☐ **Consider assembly of Stat Teams to deploy to areas / assign to cases**
- Staff teams with anesthesia, surgical, nursing, respiratory personnel as needed.

☐ **HAZMAT/WMD event consideration**
- Review personal protective procedures, such as DECON & isolation techniques.

ONGOING ASSESSMENT AND RESPONSE MANAGEMENT: Close-the-loop on any open / assigned items. Huddle with OR Staff as needed to maintain effective communication and situational awareness. | ONGOING

Mount Sinai St. Luke's | Mount Sinai West

Role of DOHMH in Improving Hospital MCI Response Planning

NYC is a directly funded city within the Hospital Preparedness Program, overseen by the Assistance Secretary for Preparedness and Response within US HHS

- As the steward of the HPP program, DOHMH holds deliverable-based contracts with NYC's hospitals and health systems

- 2016 Hospital Deliverable
  - Complete a response template focused on key internal hospital procedures after receipt of an MCI notification from FDNY (n=38)
- 2017 Network Coalition Deliverable
  - Conduct and evaluate a medical surge drill based on the MCI notification protocol for a Level C MCI (n=38)

Results from DOHMH HPP Deliverables

- Continuous need for education regarding MCI levels and patient fixed allotments
- Level-based communication / notification works well
- Need for situational awareness of Space-Staff-Stuff in ED
- Need to involve Hospital Security in response plans
- Drills:
  - Increase readiness for infrequent situations
  - Difficult to engage some staff

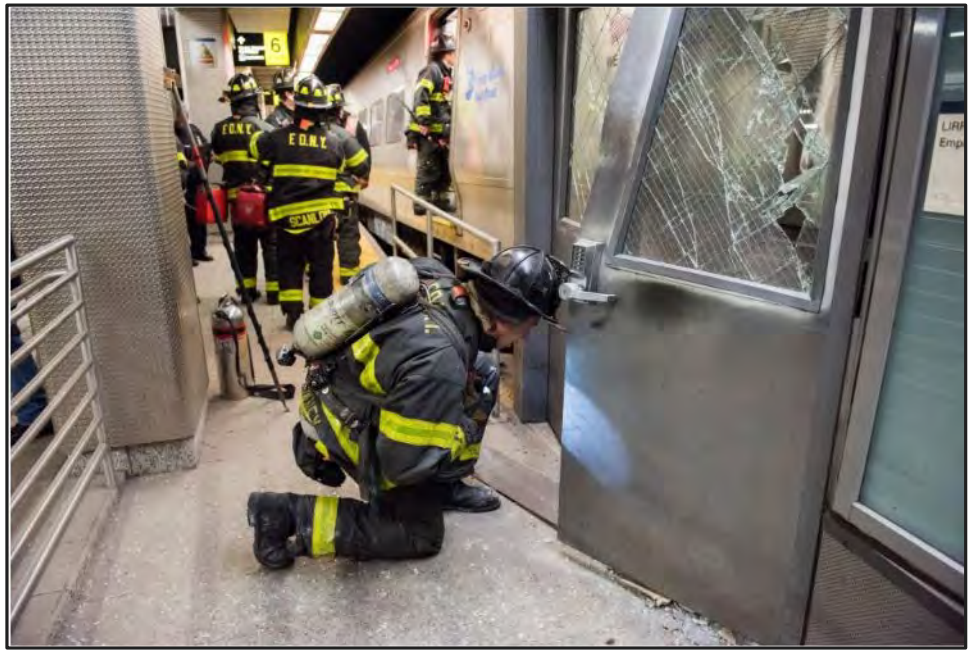
Ongoing Monitoring of Hospital MCI Notification Protocols

Since August 2016, the workgroup has continued to meet regularly

At each meeting, we deconstruct notable MCIs including:

- September 2016 Lincoln Tunnel Bus Collision
- January 2017 Long Island Railroad Train Derailment
- May 2017 Times Square Multi-Pedestrian Car Crash
- June 2017 Queens Crane Collapse
- September 2017 Chelsea Bombing
- October 2017 Vehicle Ramming Incident
- December 2017 Port Authority Bombing

FDNY and impacted hospitals share strengths and challenges from the event and discuss potential modifications to the protocol.

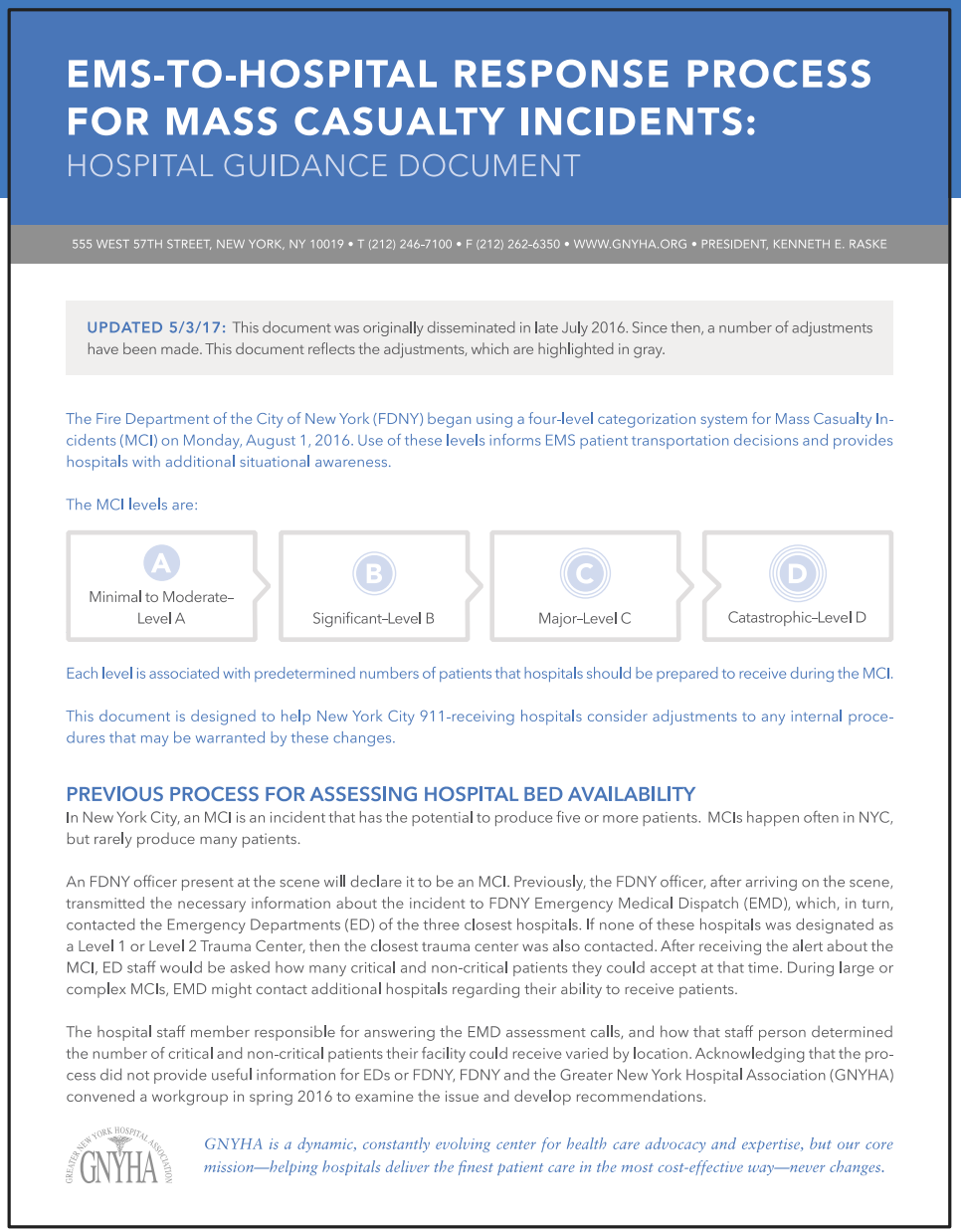


January 2017 LIRR Train Derailment

Modifications Made To Date

- FDNY EMD adjusted protocol to notify a minimum of 2 hospitals for all Level A MCIs
- Critical patients removed from the fixed allotment for stand-alone Emergency Department facilities, given lack of OR capabilities
- Allotments developed for small number of stand-alone pediatric hospitals
- Clarified that the same MCI incident may result in hospitals receiving different MCI level notifications based on anticipated patient counts

An updated guidance document was disseminated May 2017



EMS-TO-HOSPITAL RESPONSE PROCESS FOR MASS CASUALTY INCIDENTS:
HOSPITAL GUIDANCE DOCUMENT

555 WEST 57TH STREET, NEW YORK, NY 10019 • T (212) 246-7100 • F (212) 262-6350 • WWW.GNYHA.ORG • PRESIDENT, KENNETH E. RASKE

UPDATED 5/3/17: This document was originally disseminated in late July 2016. Since then, a number of adjustments have been made. This document reflects the adjustments, which are highlighted in gray.

The Fire Department of the City of New York (FDNY) began using a four-level categorization system for Mass Casualty Incidents (MCI) on Monday, August 1, 2016. Use of these levels informs EMS patient transportation decisions and provides hospitals with additional situational awareness.

The MCI levels are:

- A — Minimal to Moderate–Level A
- B — Significant–Level B
- C — Major–Level C
- D — Catastrophic–Level D

Each level is associated with predetermined numbers of patients that hospitals should be prepared to receive during the MCI.

This document is designed to help New York City 911-receiving hospitals consider adjustments to any internal procedures that may be warranted by these changes.

PREVIOUS PROCESS FOR ASSESSING HOSPITAL BED AVAILABILITY

In New York City, an MCI is an incident that has the potential to produce five or more patients. MCIs happen often in NYC, but rarely produce many patients.

An FDNY officer present at the scene will declare it to be an MCI. Previously, the FDNY officer, after arriving on the scene, transmitted the necessary information about the incident to FDNY Emergency Medical Dispatch (EMD), which, in turn, contacted the Emergency Departments (ED) of the three closest hospitals. If none of these hospitals was designated as a Level 1 or Level 2 Trauma Center, then the closest trauma center was also contacted. After receiving the alert about the MCI, ED staff would be asked how many critical and non-critical patients they could accept at that time. During large or complex MCIs, EMD might contact additional hospitals regarding their ability to receive patients.

The hospital staff member responsible for answering the EMD assessment calls, and how that staff person determined the number of critical and non-critical patients their facility could receive varied by location. Acknowledging that the process did not provide useful information for EDs or FDNY, FDNY and the Greater New York Hospital Association (GNYHA) convened a workgroup in spring 2016 to examine the issue and develop recommendations.

GNYHA

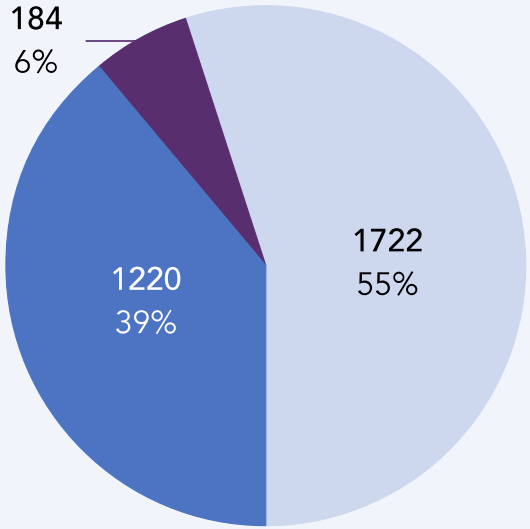
GNYHA is a dynamic, constantly evolving center for health care advocacy and expertise, but our core mission—helping hospitals deliver the finest patient care in the most cost-effective way—never changes.

Notable Information to Date

- The day the protocols went into effect – Monday, August 1, 2016 –there were NO MCIs in New York City! Usually there is an average of 7 to 8.
- The protocols are not perfect, but they are facilitating improvements in pre-hospital to hospital coordination, and helping to increase readiness within hospitals.
  - Both FDNY and hospital EDs are developing instincts related to MCI levels.
- Hospitals are using information sources other than the notification calls to become aware of and monitor incidents (i.e. breaking news services, social media monitoring, traditional media).

Year 1 Overview: MCIs and Patients

Figure 1: 1st Year MCIs



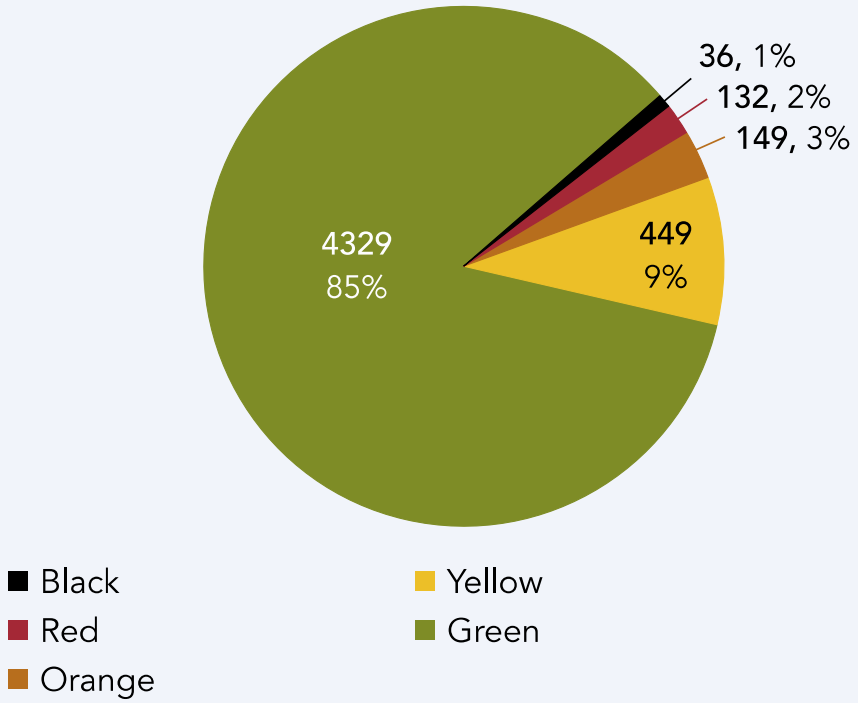
FDNY conducted an extensive analysis of MCIs during the first year of implementation – August 1, 2016 to July 31, 2017.

MCIs resulted in a total of 5,137 patients, an average of 1.7 patients per MCI. However:

- Less than half (45%) of all MCIs resulted in patients, and
- Only 39% of MCIs resulted in patients being transported to a hospital.

Year 1 Overview: Patient Triage

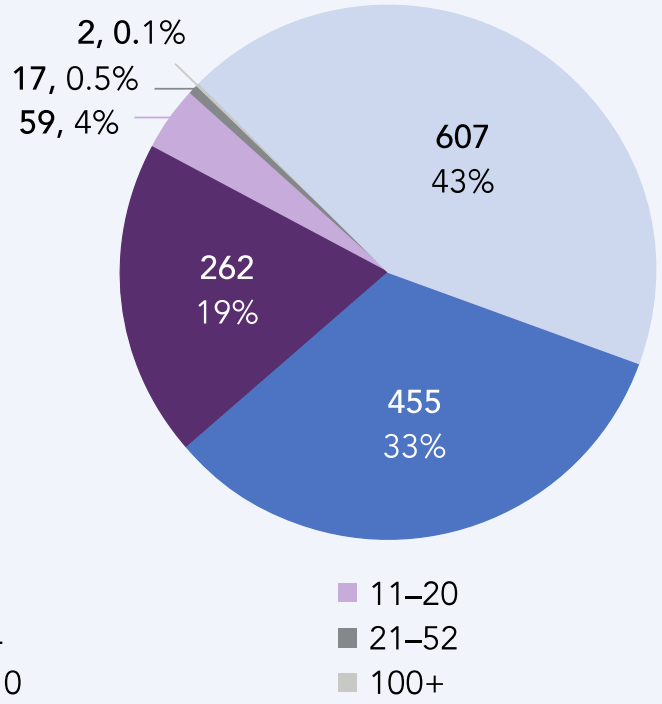
Figure 2: 1st Year MCI Patient Triage



- Among MCI patients, nearly all (94%) were non-critical, meaning green or yellow tagged.
- Only 5% were critical, meaning red or orange tagged.
- The remaining 1% of patients were black tagged (deceased), and were not transported to a hospital.

Year 1 Overview: Number of Patients

Figure 3: 1st Year MCI Patients



Among MCIs that produced patients (n= 1,402):

- 69% produced one to four patients, with 43% producing just one patient.
- Only 19 produced more than 20 patients, accounting for just 0.6% of all MCIs for the year.

Year 1 Overview: Takeaways

"Given these findings, NYC 911-receiving hospitals may choose to adjust their protocols related to a Level A notification call, given the likelihood that such a call will result in no patients or a small number of non-critical patients coming to the Emergency Department via EMS transport. Hospitals therefore may choose a posture of *enhanced monitoring* rather than activation upon receipt of a Level A call."

Decision also made to remove two codes from the MCI criteria, for *suspicious package* and *barricaded individual*, which should decrease the overall number of MCI notifications, resulting in increased specificity.

PRE-HOSPITAL-TO-HOSPITAL COMMUNICATION PROTOCOLS FOR MCIs

RESULTS FROM THE FIRST YEAR OF IMPLEMENTATION | MARCH 2018

Explanation of Pre-Hospital-to-Hospital Communication Protocols for MCIs

In August 2016, the Fire Department of the City of New York (FDNY) began using a four-level categorization system for Mass Casualty Incidents (MCIs). In New York City, an MCI is an event with the potential to produce five or more patients. The new protocol was developed through a collaborative workgroup process co-led by FDNY and Greater New York Hospital Association (GNYHA). Workgroup members explored existing New York City MCI response processes, identified areas for improvement, and reviewed information collected by FDNY on systems and methods that other major US cities use. The workgroup ultimately recommended the development of a four-level categorization system, with each level associated with predetermined numbers of critical and non-critical patients hospitals should be prepared to receive from EMS during the MCI. The use of MCI levels informs EMS patient transportation decisions and gives hospitals additional situational awareness.

The MCI levels are:

- A – Minimal to Moderate–Level A
- B – Significant–Level B
- C – Major–Level C
- D – Catastrophic–Level D

As illustrated in the table to the left, the allotments vary based on average daily emergency department (ED) visits and trauma center designation.

Based on these variables, all 911-receiving hospitals were assigned patient-fixed allotments for Level A, Level B, and Level C MCIs, which FDNY communicated via a letter to each hospital chief executive officer in July 2016. The allotted numbers reflect EMS transport expectations and do not take into account patients who may arrive on their own.

It is important to note that in many recent mass shootings, the large majority of victims arrived by means other than ambulances. ●

Average Daily ED Visits	Critical Patients		Non-Critical Patients	
	Non-Trauma Hospital	Trauma Hospital (Level 1 or 2)	Non-Trauma Hospital	Trauma Hospital (Level 1 or 2)
LEVEL A MCI (Minimal to Moderate)				
≤200	1	NA	20	NA
>200	2	3	30	30
LEVEL B MCI (Significant)				
≤200	2	NA	30	NA
>200	4	6	50	50
LEVEL C MCI (Major)				
≤200	4	NA	40	NA
>200	6	9	70	70

555 WEST 57TH STREET, NEW YORK, NY 10019 • T (212) 246-7100 • F (212) 262-6350 • WWW.GNYHA.ORG • PRESIDENT, KENNETH E. RASKE

Implementation Challenges & Benefits

Challenges

- Incident MCI level vs. MCI level specific to the hospital tied to a patient allotment

Pre-hospital

- Consistency/standardization of protocol use
- FDNY EMD calls hospitals based on proximity, however on-scene decision-making may differ

Hospital

- Training all ED staff all shifts, and maintaining knowledge
- Reacting appropriately to notification calls, especially for Level A MCI calls

Benefits

- MCI levels now being used to trigger complementary protocols and activities
- Protocol provides hospitals with a target to plan against
- Frequent workshop meetings have enabled continuous improvements
- Workgroup process has created trust, and provided a forum for collaboration among EMS, healthcare, and public health
- This work is catalyzing many other MCI response initiatives

Additional MCI Response Initiatives

Emergency Department Frontline Staff Training

- Held in May 2017; presented a Level C MCI scenario, discussing:
  - Notification and patient arrival;
  - Hospital and healthcare worker safety
  - Non-patient issues
  - Patient management

MCI Response Toolkit for Hospitals

- Currently under development; brings together protocols, resources and emerging best practices from events across the country

FDNY Dispatch Center Tours

- In December 2017 FDNY began offering NYC hospital teams tours of its dispatch center. The purpose of the tours is to help hospital personnel understand how 911 calls come into the dispatch center, and are then routed through the EMS system, as well as how hospital communications are handled. Nearly 20 hospital teams have participated.

Fact Finding Delegation Visit to Las Vegas, February 1-2, 2018

Visiting University Medical Center

- Participants included:
  - 9 NYS health systems
  - Government response agencies including: FDNY, NYPD, OCME, DOHMH, NYCEM, NTSB, Department of State Diplomatic Services
- Met with representatives of 3 Las Vegas hospitals, Las Vegas police and fire agencies, community ambulance companies, Public Health District, Nevada Hospital Association

Trip catalyzed significant health system and regional planning efforts.

Regional areas of focus include:

- Development of mass casualty triage course for hospital clinicians
- Planning related to non-EMS transports and secondary transport
- Development of a regional unidentified patient naming convention

Movement Toward a Shared Situational Awareness Platform for NYC

All NYS GNYHA members have been offered Sit Stat 2.0:

- A comprehensive web-based incident management system designed to enhance daily operations, and manage and document emergency incidents.
- When linked with other hospital accounts, health system emergency management offices, GNYHA, and agency response partners, the system will form a health and medical situational awareness platform.

GNYHA is working with NYC response agencies to move daily interactions with hospitals into this system:

- FDNY and GNYHA are working to transition hospital MCI notifications from a phone-based system to the Sit Stat 2.0 platform

Thank You

Brad Kaufman
First Deputy Medical Director
FDNY
Email: Bradley.Kaufman@fdny.nyc.gov

Jenna Mandel-Ricci
Vice President, Regulatory and Professional Affairs
GNYHA
E-mail: jmandel-ricci@gnyha.org

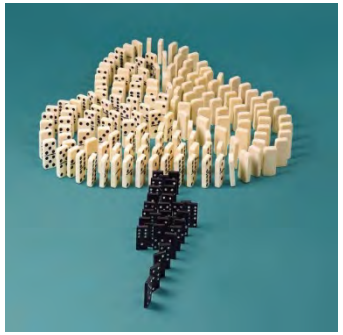
Michael Redlener
Medical Director for EMS and Disaster Preparedness, Department of Emergency Medicine
Mount Sinai St. Luke's and Mount Sinai West Hospitals
Email: Michael.Redlener@mountsinai.org

Tim Styles
CDC Career Epidemiology Field Officer
Medical Director, Bureau of Healthcare System Readiness, DOHMH
Email: tstylesmd@health.nyc.gov

NYCHCC Steering Committee (HMExec) Updates

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

HVA/JRA (Hazard Vulnerability/Jurisdictional Risk Assessment)



The 2018 NYC Public Health Risk Assessment

Francoise Pickart
Director, Risk + Analytics
Agency Preparedness and Response

NYC™ Health

Agenda

- The 2018 NYC Public Health Risk Assessment
- Results so far
- Round 5
- End Game

This presentation is heavy on theories that may be foreign to you – feel free to ask questions!

NYC Health

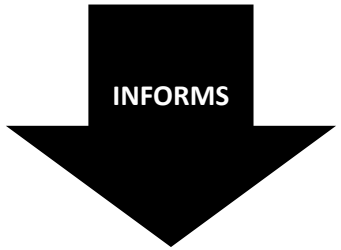
To protect and promote the health of all New Yorkers

Goal of a risk assessment

Risk Assessment. Characterizes the probable risks to NYC.

→ **What** we should worry about.

Conducted every 5 years. CDC requirement.



Vulnerability Analysis. Characterize populations at risk.

→ **Who** we should worry about.

Vulnerability is always context dependent.

Understanding risk

A **public health disaster** is any event, typically occurring suddenly, that causes the loss of life, deterioration of health and health services, and which exceeds the adjustment capacity of the affected community on a scale sufficient to require outside assistance.

$$\textit{Public Health Disaster Risk} = \frac{\textit{Probability} \times \textit{Severity}}{\textit{Manageability}}$$

NYC Health

Challenges assessing hazard risk

- Overreliance on **perceived threats** and fictional scenarios.
  - Bias towards extreme events.
- Failure to recognize that **extreme events are created by context**.
  - The vulnerability of the WTC only commands our attention now because of the occurrence of the attacks
  - Many extreme events are of interest precisely because they are so unexpected; i.e. prior risk calculations were grossly in error.

Watchlist | Diseases threatening a public health emergency*

- Crimean-Congo haemorrhagic fever (CCHF)
- Ebola virus disease and Marburg virus disease
- Lassa fever
- Middle East respiratory syndrome coronavirus (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS)
- Nipah and henipaviral diseases
- Rift Valley fever (RVF)
- Zika
- Disease X

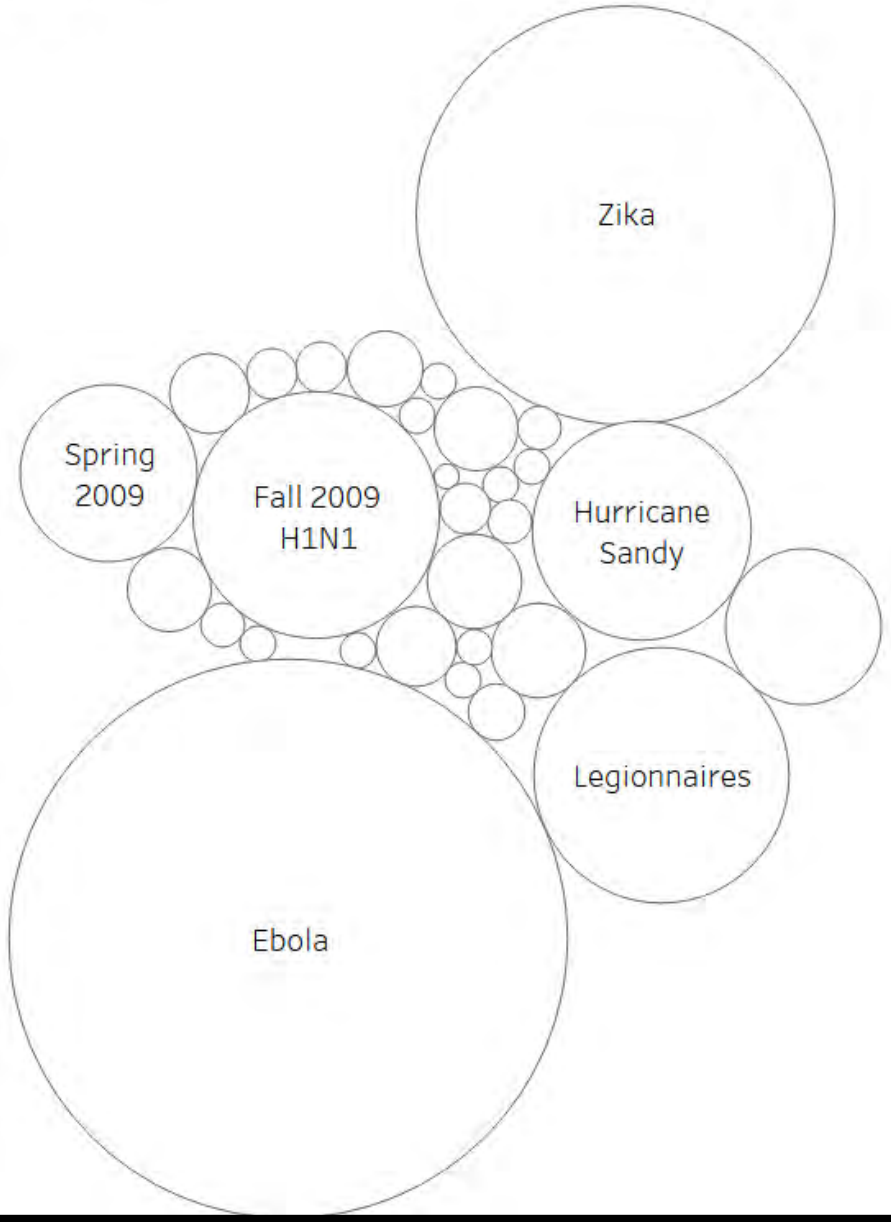
**Diseases posing significant risk of an international public health emergency for which there is no, or insufficient, countermeasures. Source: WHO, 2018*

Sarewitz et al. *Vulnerability and Risk: Some Thoughts from a Political and Policy Perspective.* 2003.

NYC Health

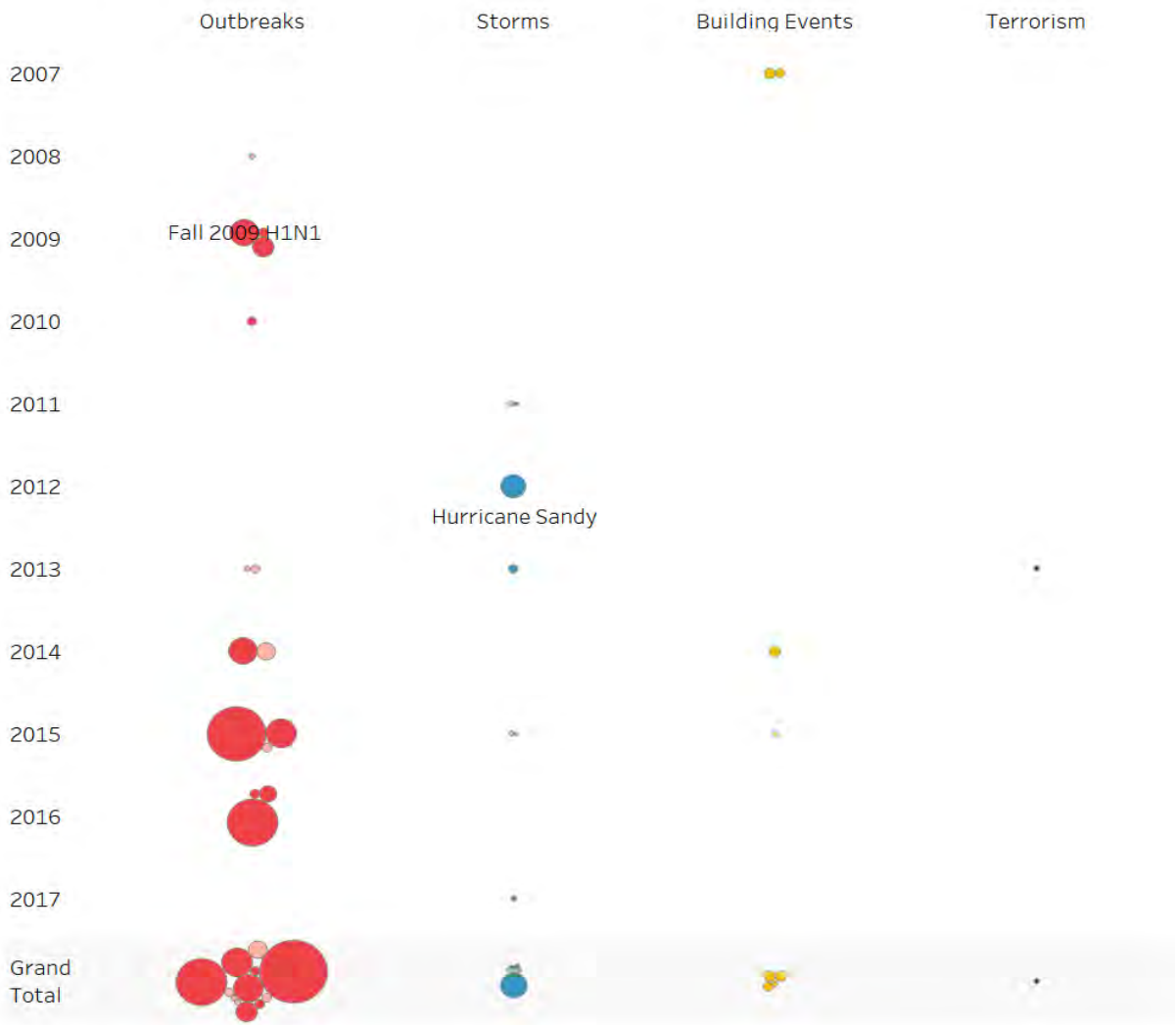
Total Activation Days by Hazard Type, 2007-2017

Forecast Storms	**Total**	**9**
	Hurricane Irene	4
	Winter Storm Juno	2
	Hurricane Joaquin	3
Actual Storms	**Total**	**80**
	Hurricane Sandy	75
	Snow Storm 2011	2
	Snowstorm Stella	3
Common Outbreaks	**Total**	**66**
	Measles/Mumps 2014	38
	Westside Market HepA	9
	West 10th St HepA	4
	Restaurant Chain HepA	11
	West Village Hepatitis A Response	4
Uncommon Outbreaks	**Total**	**1,029**
	Fall 2009 H1N1	95
	Spring 2009 H1N1 First Act	11
	Spring 2009 H1N1 Re-Act	49
	Ebola	488
	Legionnaires	102
	Zika	274
	Animal Shelter Outbreak	10
Building Events	**Total**	**43**
	Steam Pipe Incident	10
	Deutsche Bank Fire Incident	14
	East Harlem Building Explosion	14
	East Village Building Fire/Collapse	5
Terrorism	**Total**	**3**
	Ricin Letter Response	3



NYC Health

Health Department Emergency Activations by Year and Number of Days Activated, 2007-2017



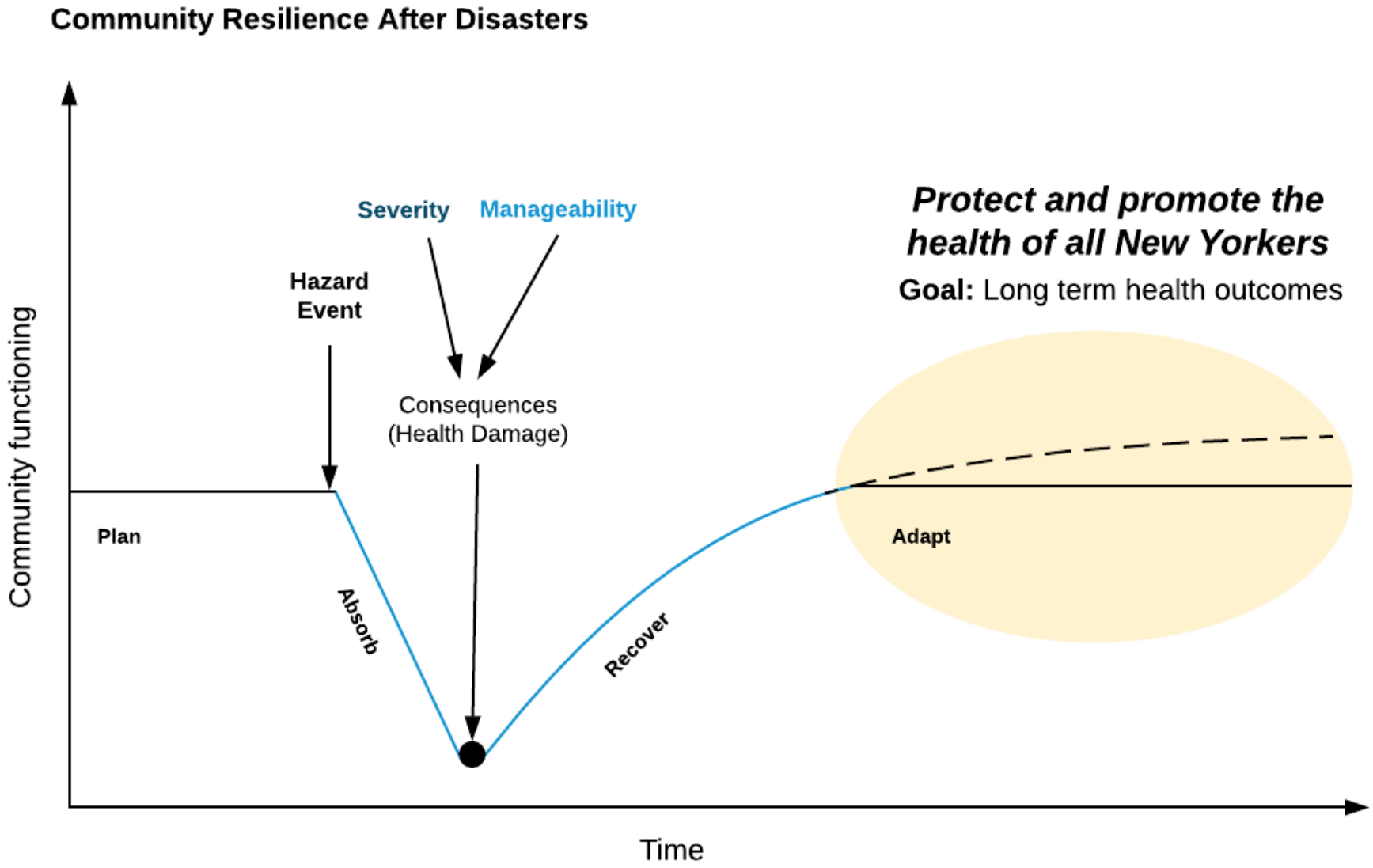
NYC Health

2018 NYC Public Health Risk Assessment

- **Citywide.** Focused on public health risk at all levels
  - Public Health
  - Health Care System
  - Government
  - Community
- **Inclusive.** Community partners will be included in defining disaster risk and ranking hazards.
- **Transparent.** All findings and methods will be made publicly available for comment and review.

NYC Health

Focus on consequences, not hazards



NYC Health

Goals

- **Define** Public Health Disaster Risk

$$\textit{Public Health Disaster Risk} = \frac{\textit{Probability} \times \textit{Severity}}{\textit{Manageability}}$$

  - Develop **measureable definitions** for Probability, Severity and Manageability.

- **Rank** public health hazards for disaster risk

NYC Health

Bringing in other points of view

Public Health

How does this hazard affect the public's health?

Healthcare System

How does this hazard affect the healthcare system?

Community Groups

How does this hazard affect my community's health?

City Agencies

How does this hazard affect City operations?

NYC Health

Participation in Rounds 1-4

- More than **5300 surveys** have been completed
- Over **1800 participants**

	Participants
Round 1	1254
Round 2	707
Round 3	720
Round 4	788

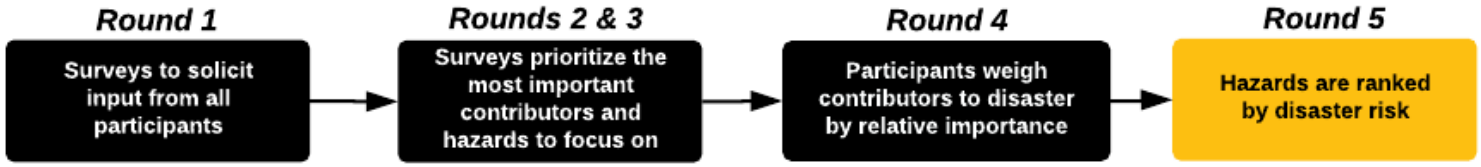
Round 1	Severity	Probability	Manageability	Hazards
Public Health	293	24	145	379
NYC Healthcare Coalition	542	0	258	116
Other Government Agencies	74	1	46	4
Non-profits, coalitions and c	110	0	57	5
Total	**1019**	**25**	**506**	**504**

Round 2	Severity	Manageability	Hazards
Public Health	225	179	294
NYC Healthcare Coalition	218	181	155
Other Government Agencies	27	17	1
Non-profits, coalitions and c	124	76	5
Total	**594**	**453**	**455**

Round 3	Hazards
Public Health	379
NYC Healthcare Coalition	309
Other Government Agencies	10
Non-profits, coalitions and c	22
Total	**720**

Round 4	Severity	Probability	Manageability
Surveys received*	658	21	507

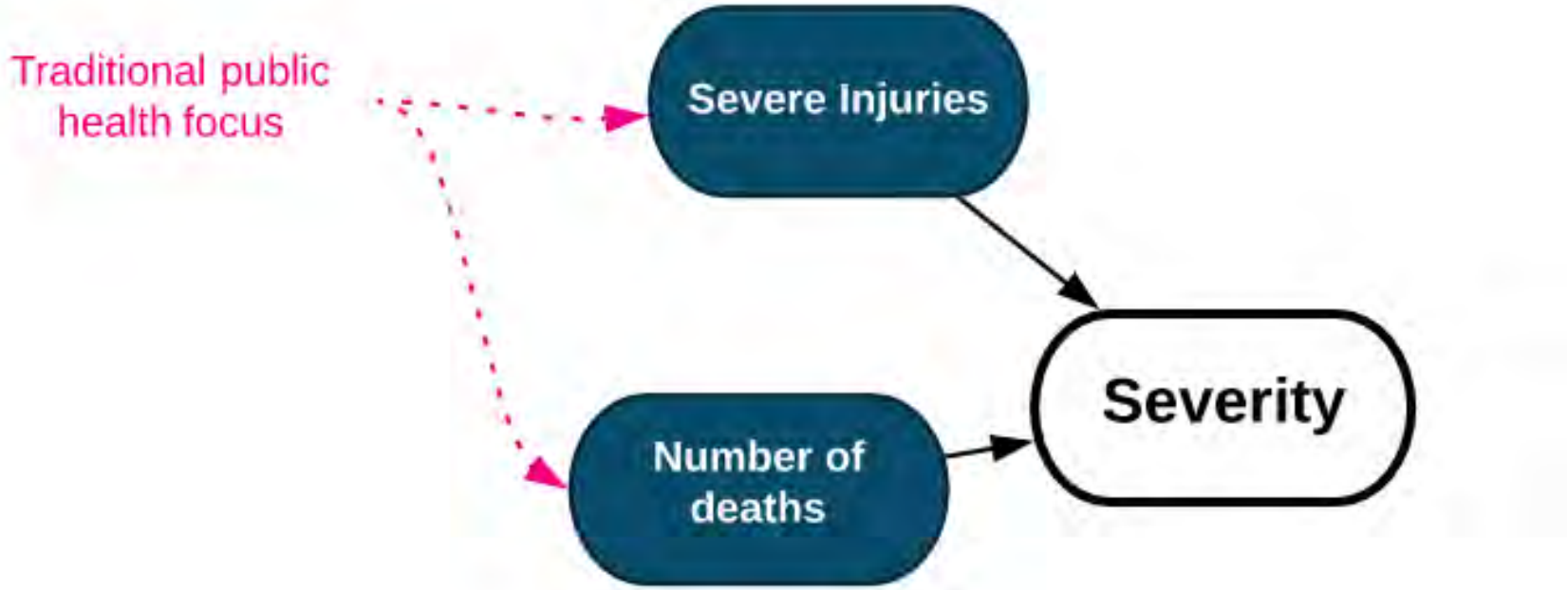
*Analysis in progress

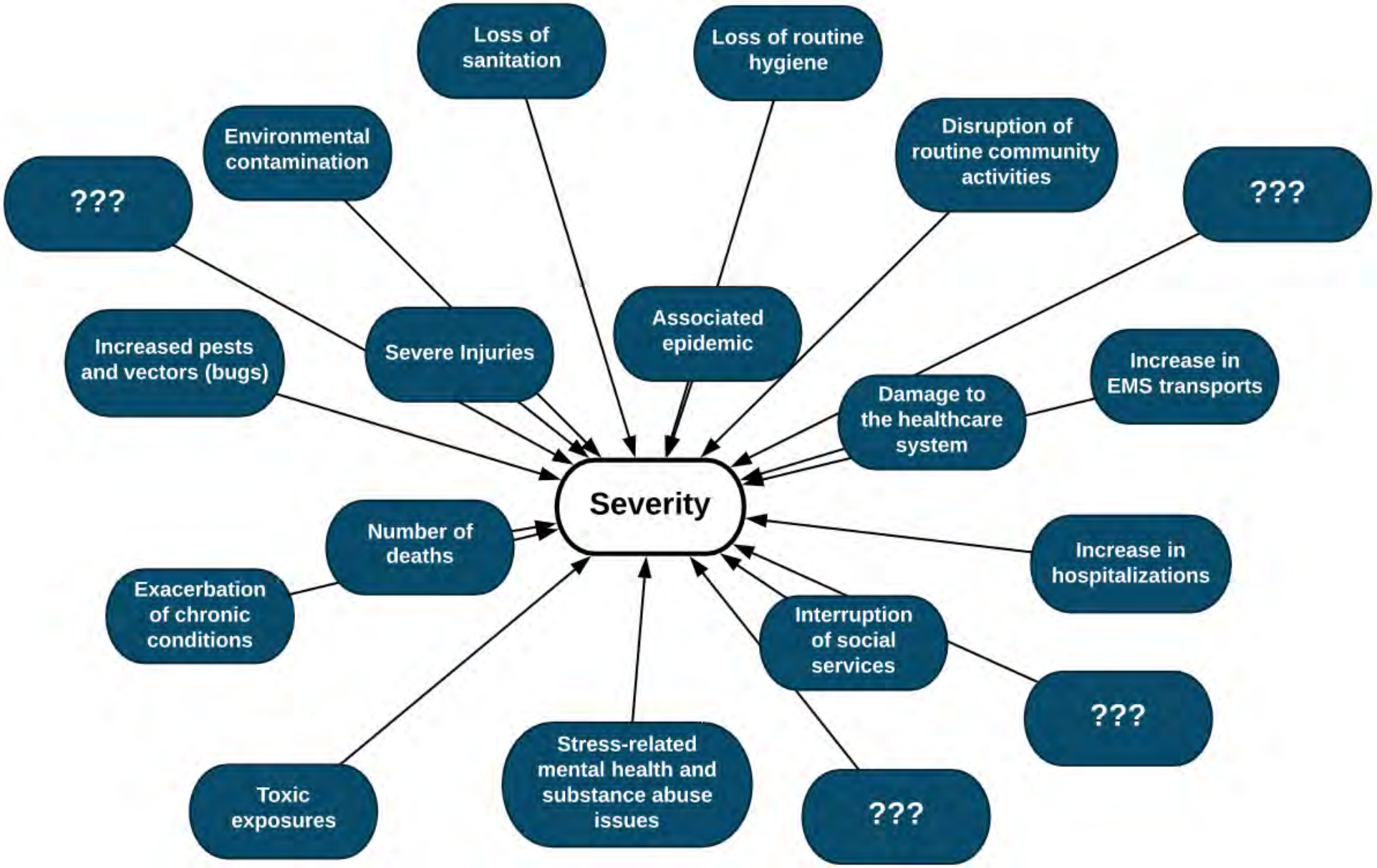


NYC Health

Round 1

Identify all contributors to the severity of a public health disaster





Result: **Long list** of contenders for consideration when we rank hazards

NYC Health

7 Final Severity Contributors

SEVERITY CONTRIBUTORS 27 → 41 → 9 → 7

Diminished capacity of the healthcare system.

Disruption to the potable water supply

Loss of utility-provided power

Increase in harmful or life-threatening toxic exposures and environmental contamination

Risk of an associated disease outbreak.

Severe injuries and an increase in illness.

Deaths

NYC Health

How do we determine probability?

"The process of prediction for decision making (as opposed to prediction for science) examines the likelihood of certain future events in order that decision makers might have a more informed basis for selecting one possible course of action over another. For many reasons, reliance on prediction as the basis for decision making is fraught with peril and can in fact introduce unhelpful pathologies to a decision process." (Sarewitz 2003)

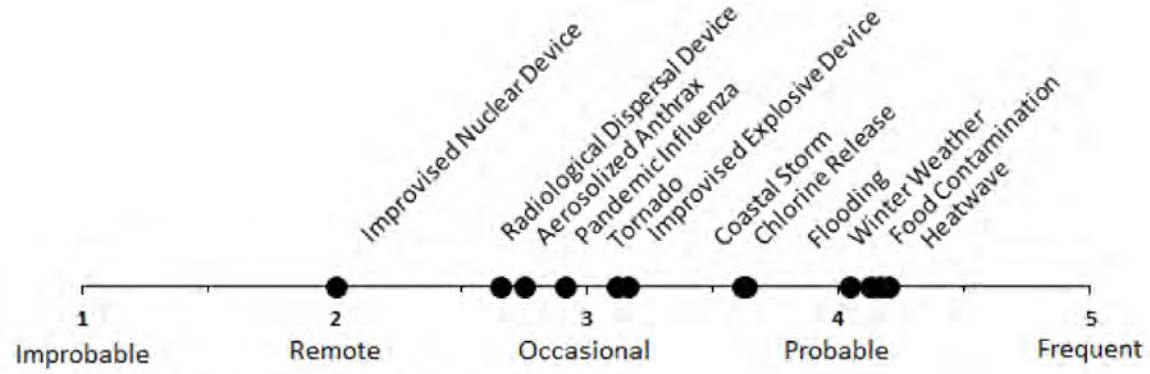
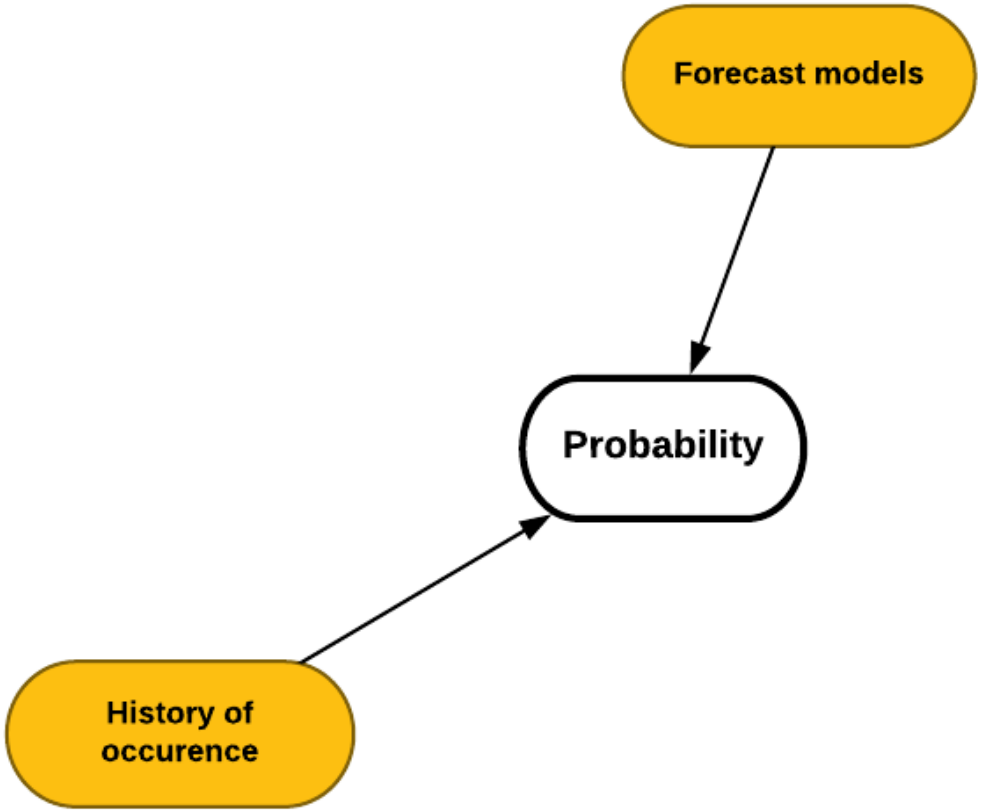


Figure 4. The probability of scenario occurrence

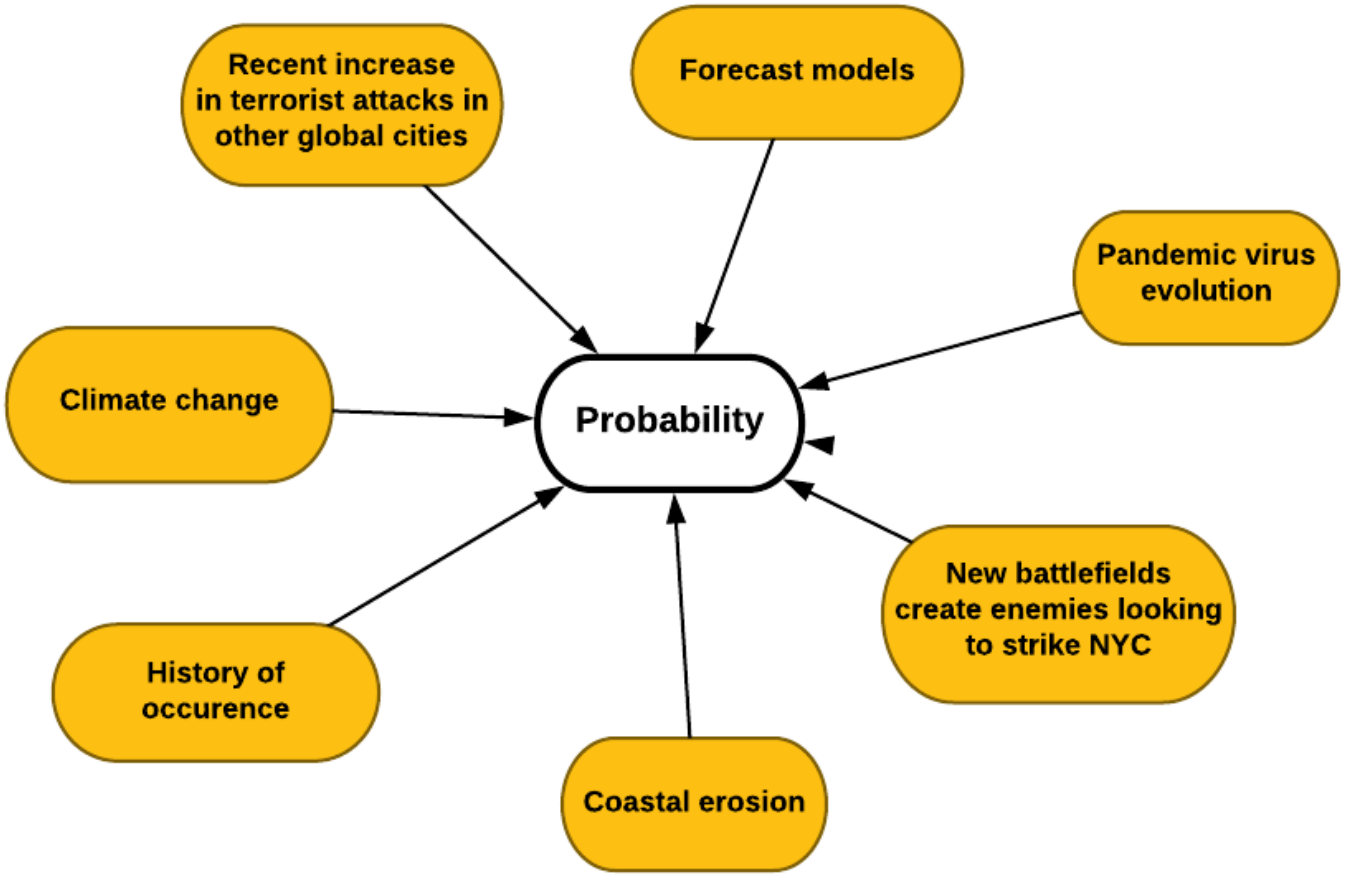
"Bernard, nobody likes an 'I told you so.'"

NYC Health

What contributes to our estimation of the **probability** that a hazard will occur?

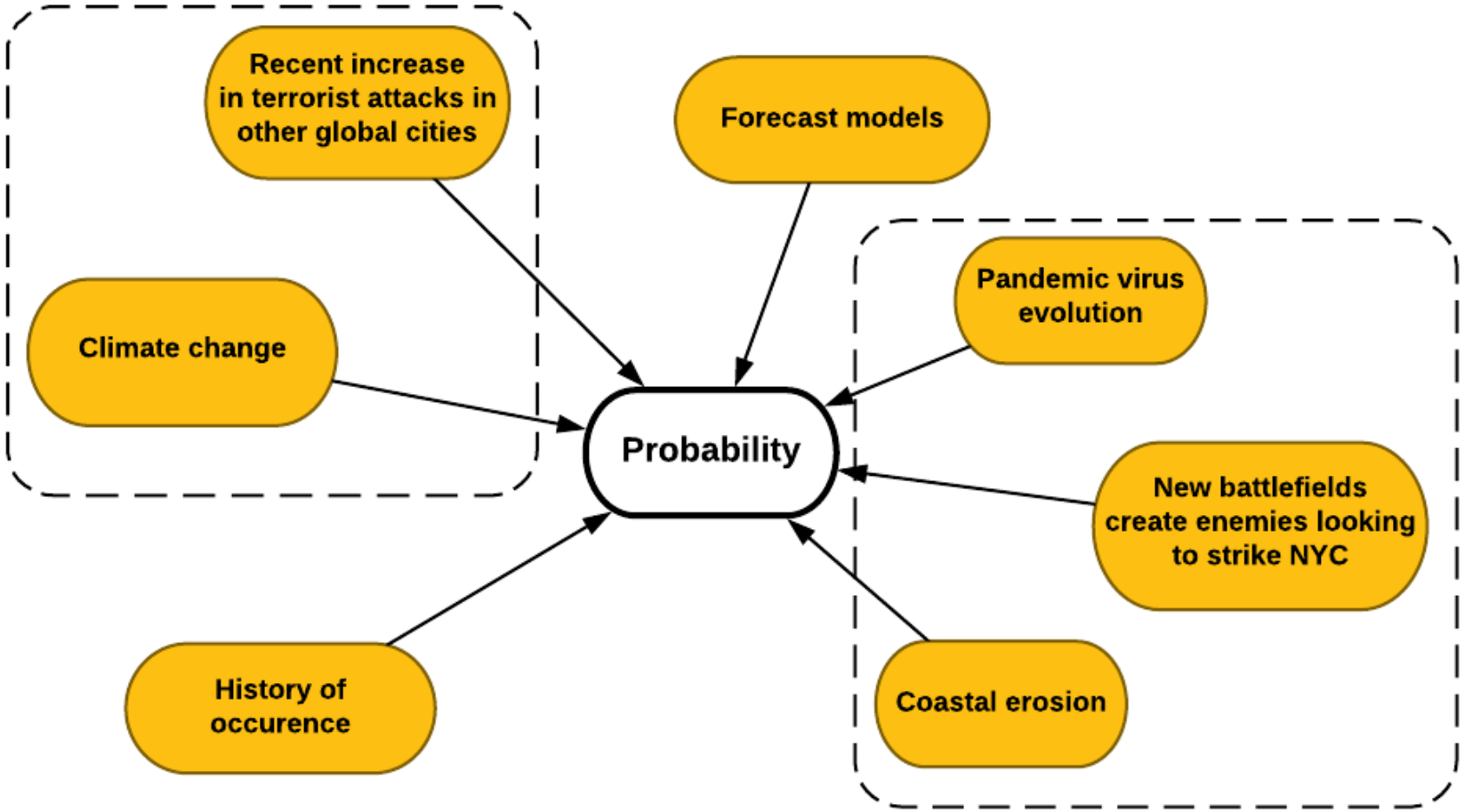


What contributes to our estimation of the **probability** that a hazard will occur?



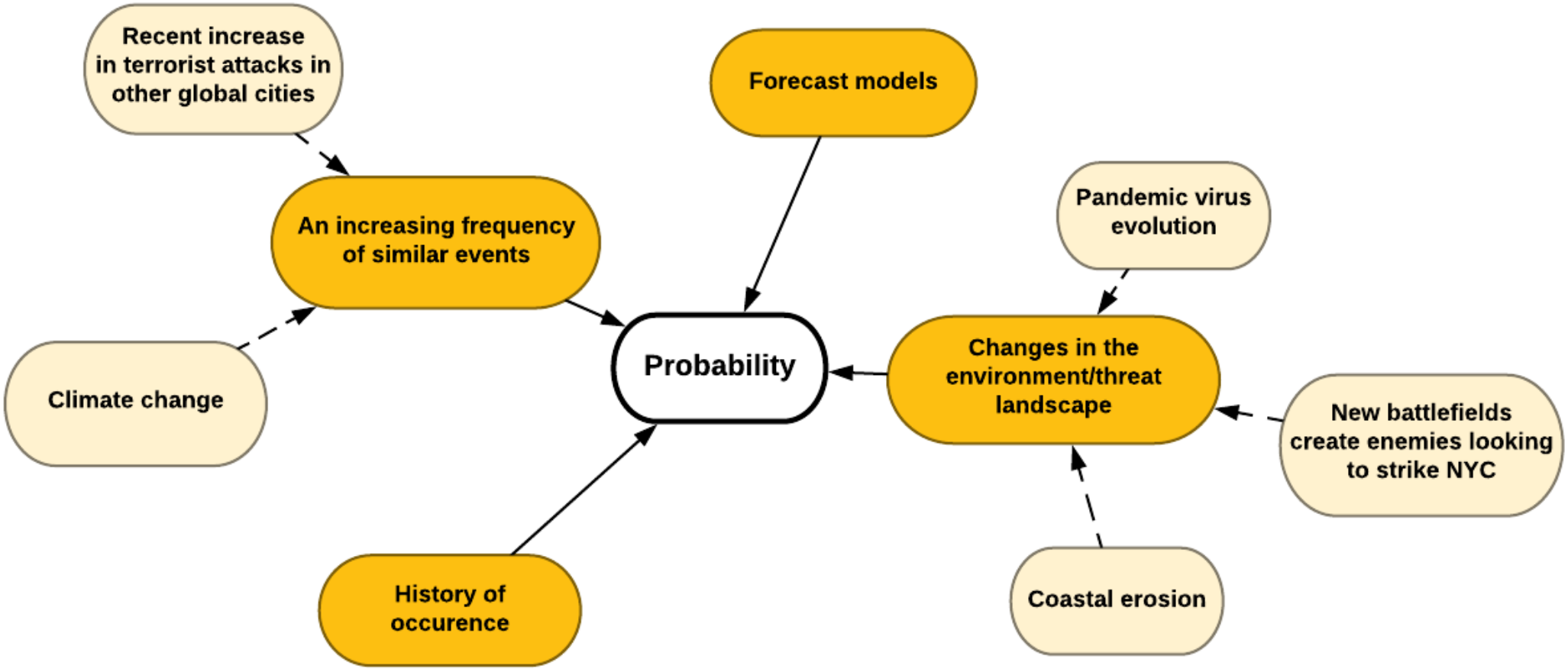
NYC Health

What contributes to our estimation of the **probability** that a hazard will occur?



NYC Health

Making the implicit visible.



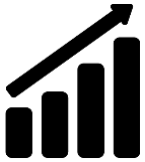
NYC Health

4 Final Probability Contributors

PROBABILITY CONTRIBUTORS 5 → 4

The number of reported occurrences

Forecast models and academic or actuarial studies



An increasing frequency of similar events

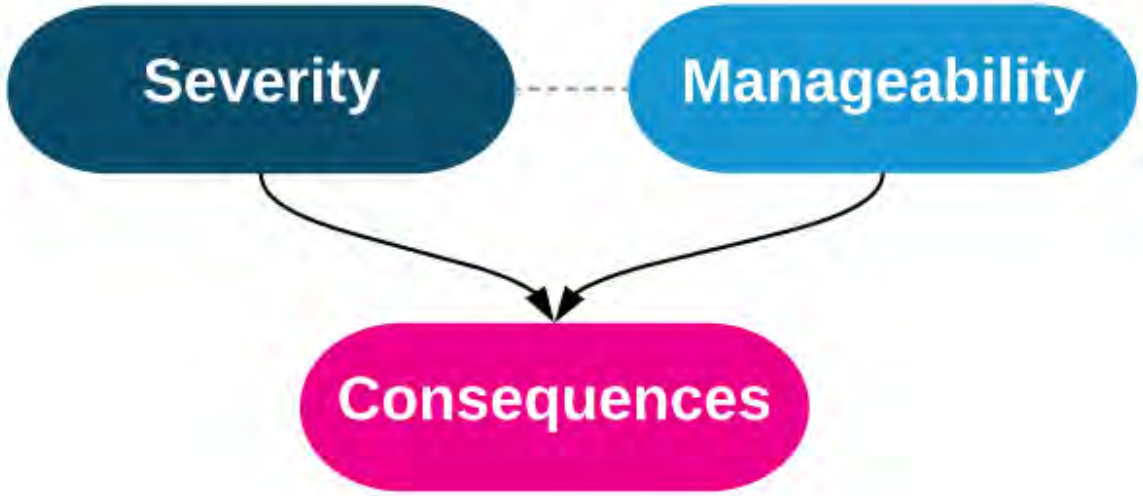
Changes in the environment or threat landscape that make it more likely to occur

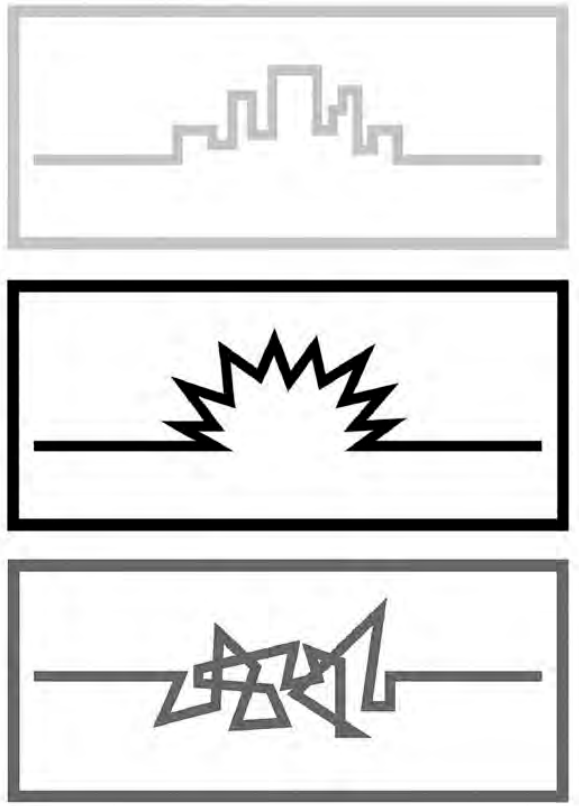
NYC Health

Methods Example

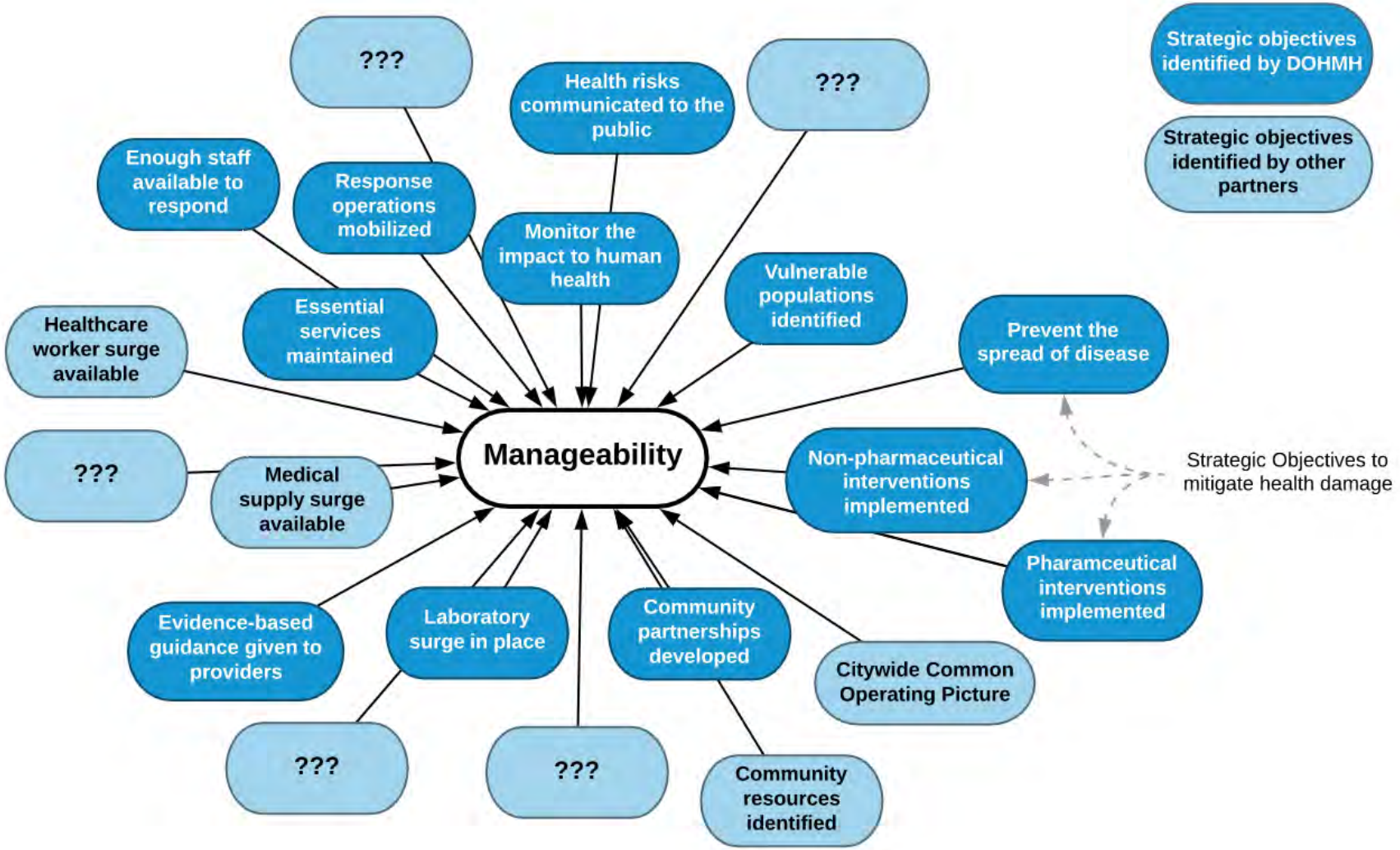
Identify all contributors to the manageability of a public health disaster

Manageability contributors include anything that can **decrease the severity** of a hazard (mitigation) or **increase the coping capacity** of the City.





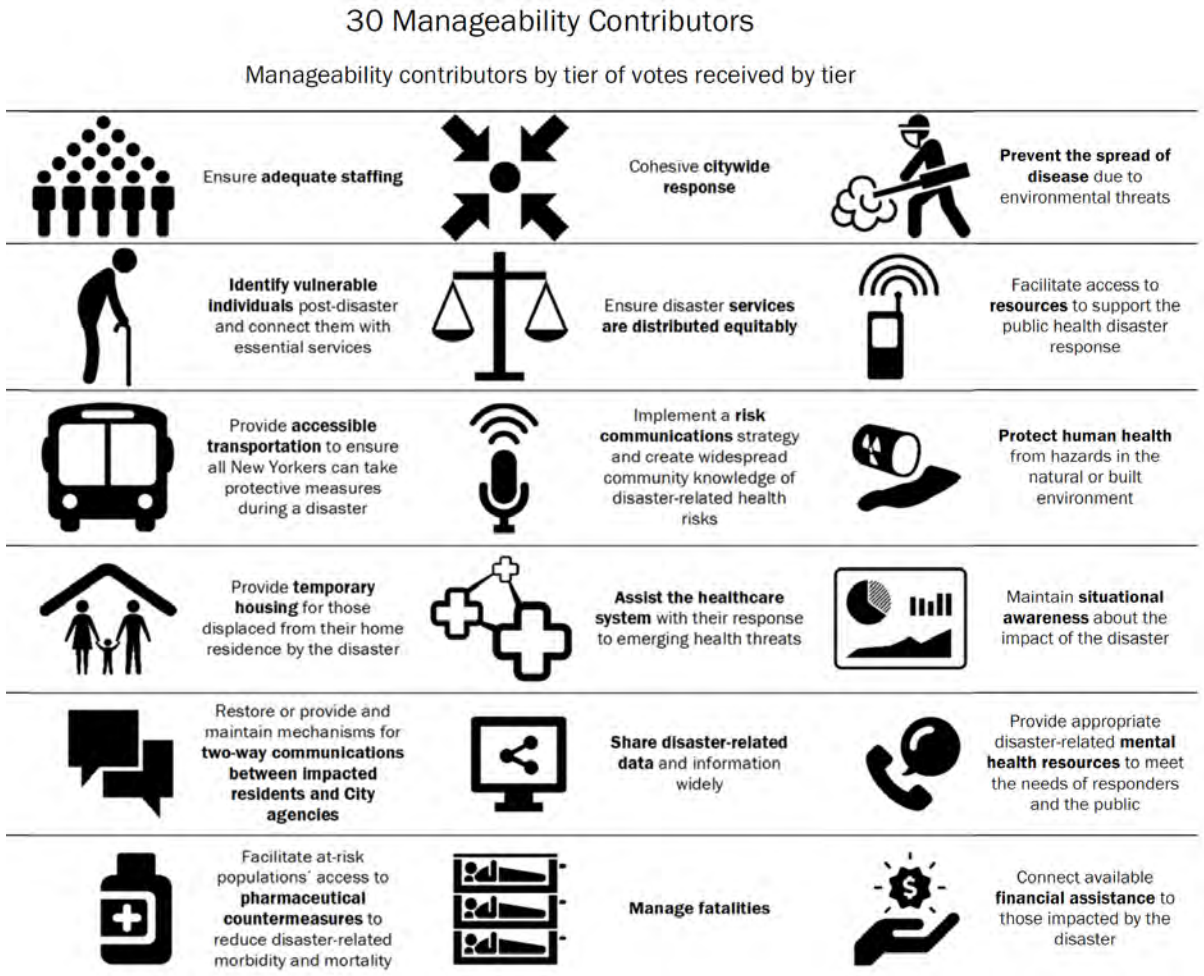
Identifying all contributors to manageability



Result: **Long list** of contenders for consideration when we rank hazards

30 Manageability Contributors to Assess

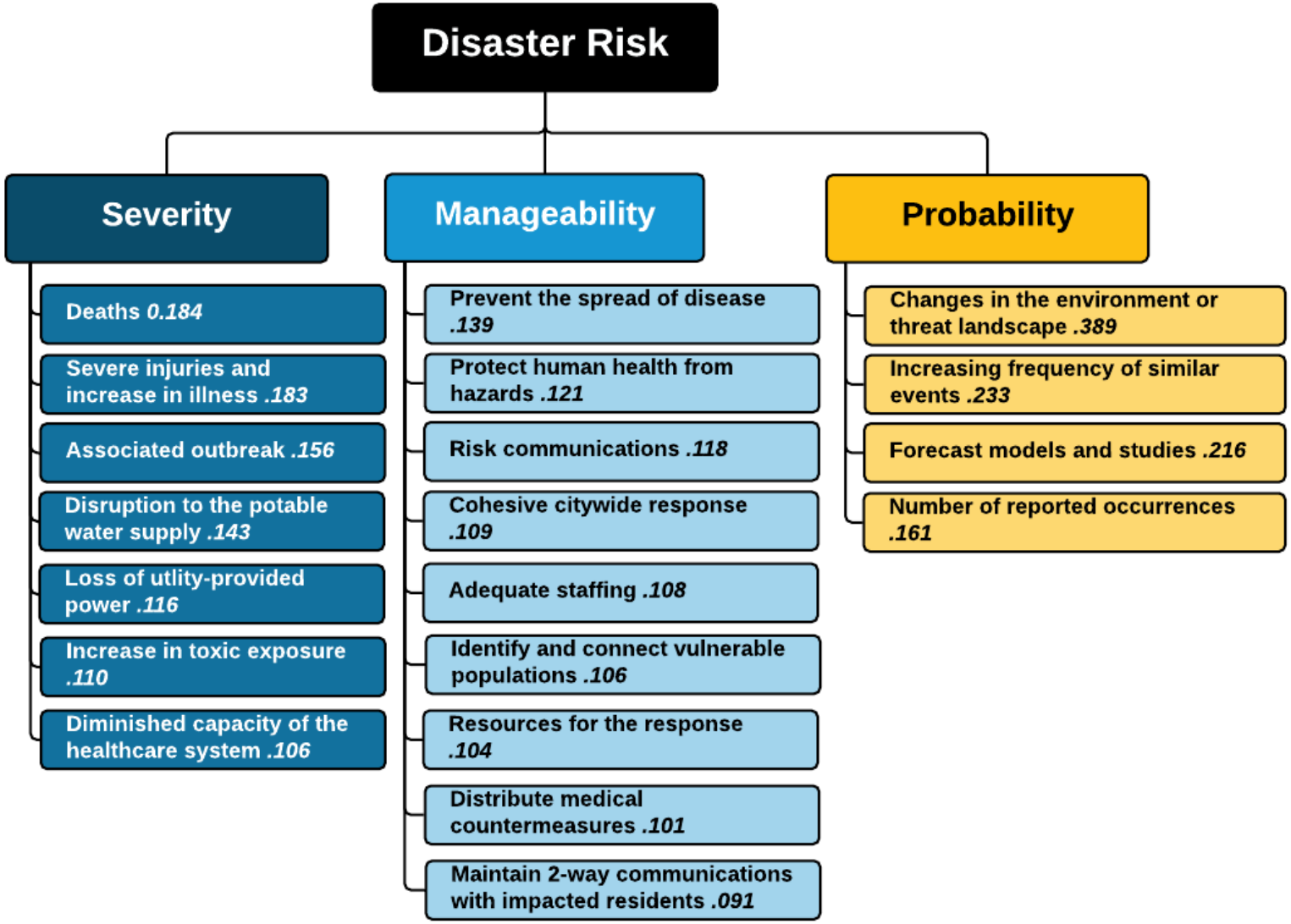
MANAGEABILITY CONTRIBUTORS 19 → 30 → 10 TIERS → 9



All 30 contributors will be evaluated to inform planning. The top 9 will be used to rank hazards.

NYC Health

Contributors importance to disaster risk

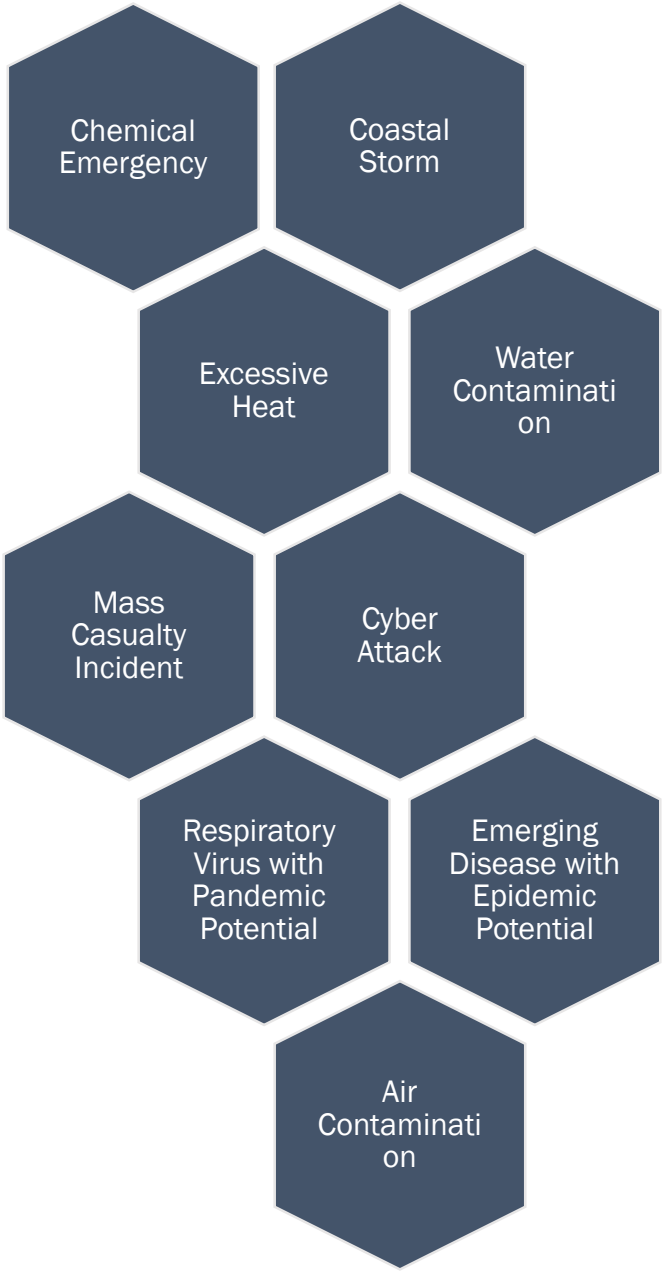


NYC Health

Top 9 Hazards to Rank

PUBLIC HEALTH HAZARDS 15 → 23 → 15 → 9

- Round 5 (The Last Round!) will likely begin October 9th.
- Participants will be asked to assess contributors to severity, probability or the manageability of the top 9 hazards.



NYC Health

Round 5 Example

Pairwise comparison of hazards to create a prioritized list

Example: For which hazard are we more able to ensure adequate staffing to meet the needs of the response? Indicate the relative difference in ability between the two hazards.

Results!

October	**Round 5**
December	**Short summary of findings**
2019	**Full detailed report**

SPARTA Mission Prioritize the *most important* Response Functions for which we have less capacity/preparedness.

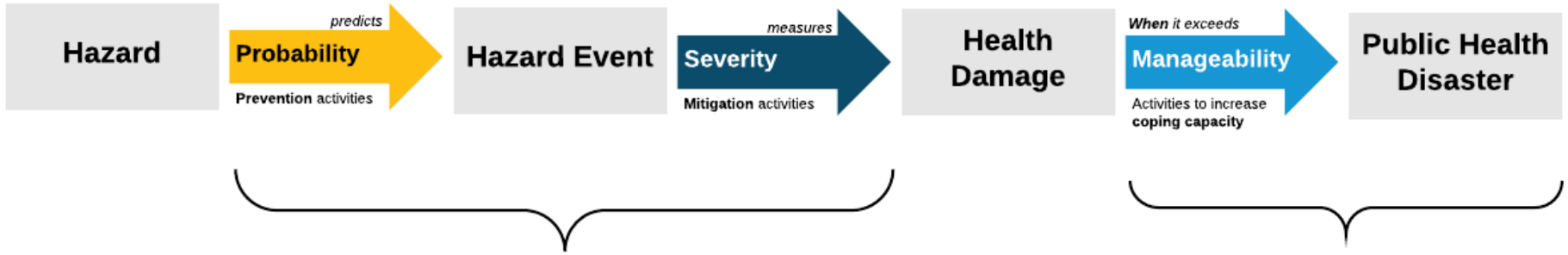
Strategic Objectives	Criticality *by Tier*	Preparedness Gaps *by Tier*	Capacity Gaps *by Tier*	Priority Decision
A	1	3	2	
B	3	2	4	
C	1	1	2	
D	3	4	1	
E	1	1	3	
F	2	1	1	

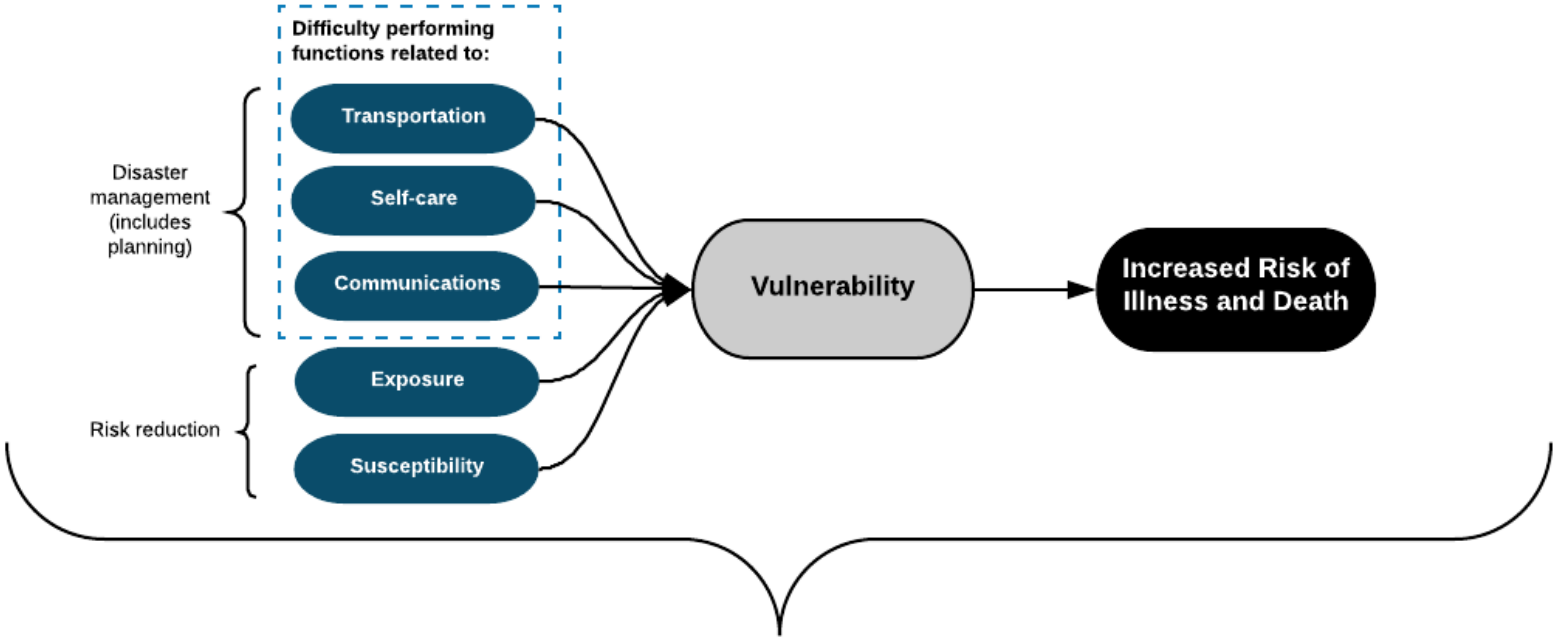
NYC Health

Benefits! Outcome of the process

- **First of its kind public health risk assessment** with community input
- Ranked list of **public health hazards** with customized results for the healthcare sector and community.
- **Ranked response inventory** to guide DOHMH preparedness work
- **Identified gaps** in City efforts that DOHMH can help address.

Public Health Emergency Management





NYC Health

Questions?

risk@health.nyc.gov

Françoise Pickart
fpickart@health.nyc.gov

Madhury Ray
mray1@health.nyc.gov

"Let's face it—the city's in our blood."

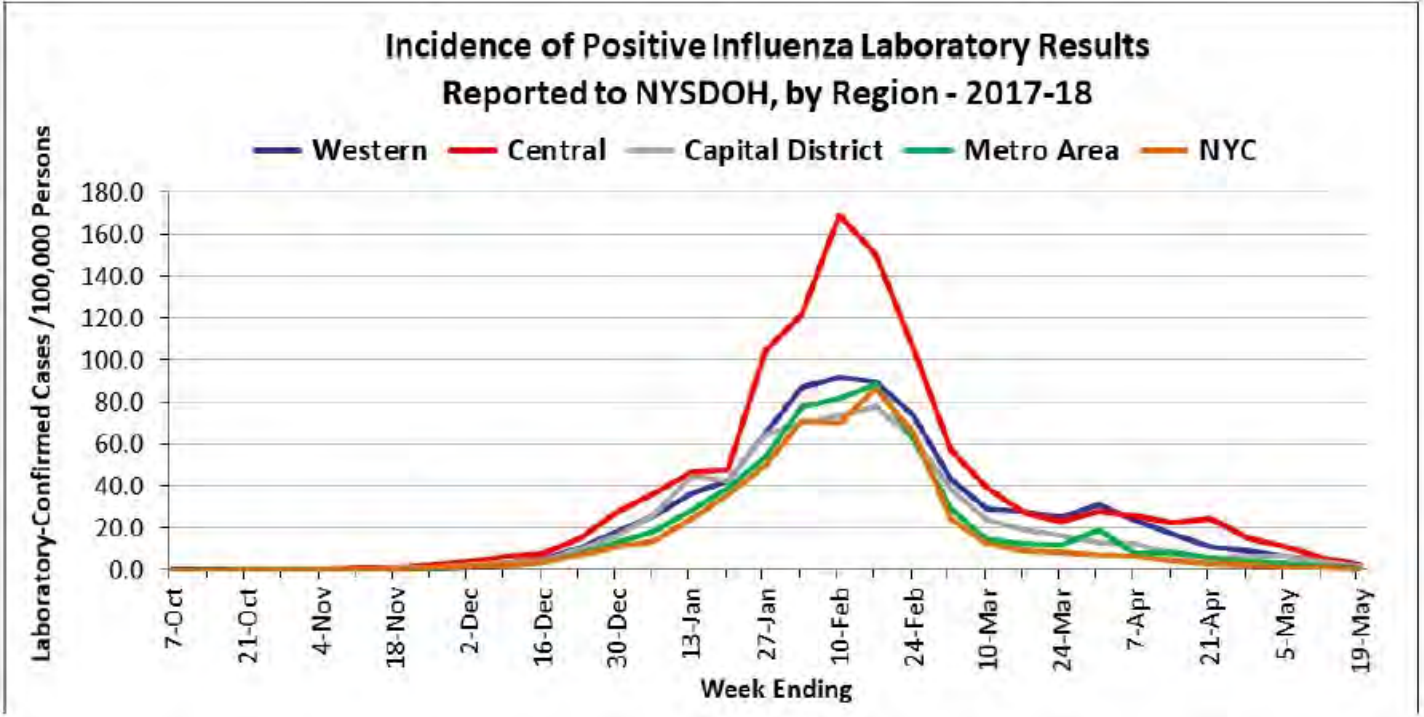
What's on our radar?

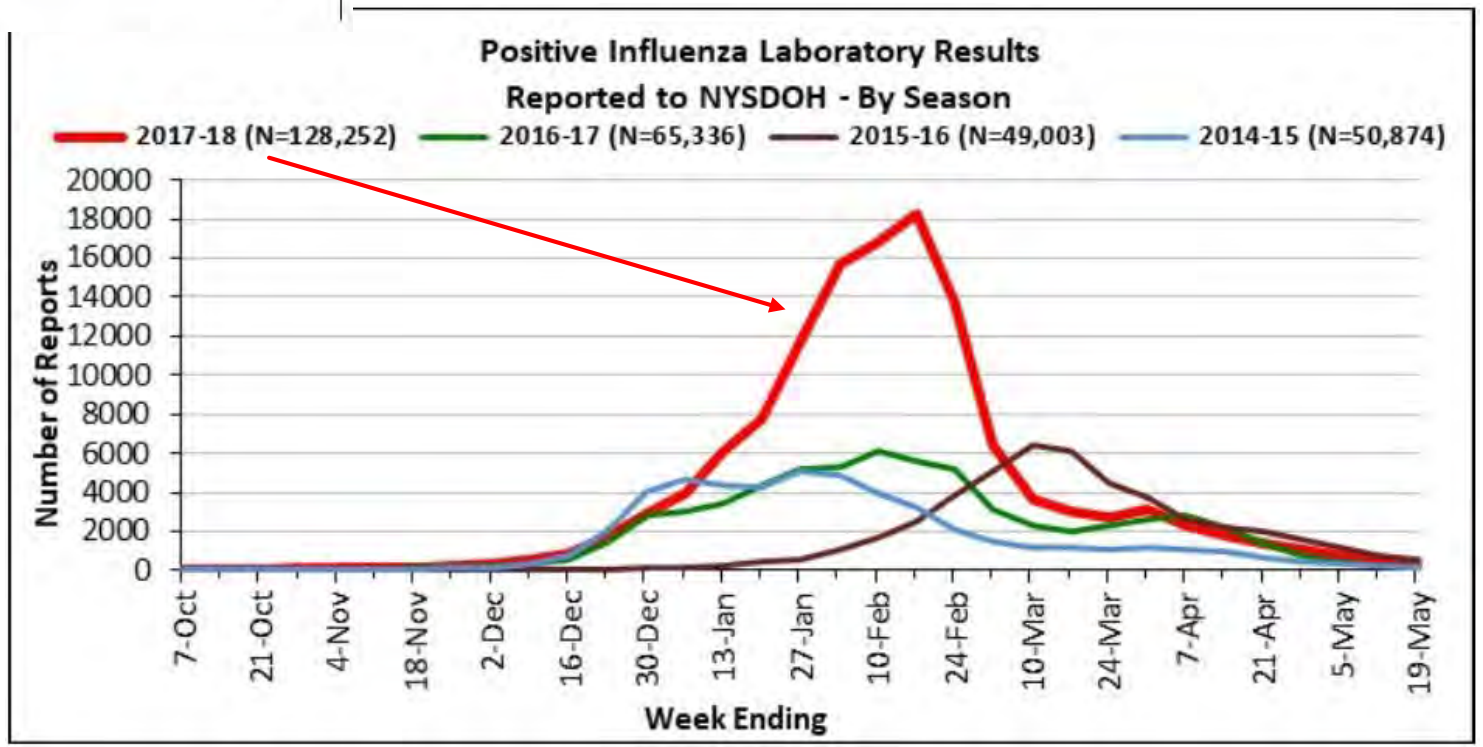
INFECTIOUS DISEASE OUTLOOK MID-YEAR REPORT

MARY FOOTE, MD, MPH

2017-2018 Flu Season

- Highest hospitalization rate since surveillance started (in 2005-6, CDC)
- Severe strain of Influenza A (H3N2) dominated
- Vaccine effectiveness 36%
- Supplies
  - Spot shortages of generic Oseltamavir (Tamiflu) and suspension in NYC
  - IV Fluid shortages (due to hurricane Maria)
- NYSDOH utilized HERDS to monitor healthcare impact
  - HMExec hosted regular update calls


Incidence of Positive Influenza Laboratory Results
Reported to NYSDOH, by Region - 2017-18
Western
Central
Capital District
Metro Area
NYC
Laboratory-Confirmed Cases /100,000 Persons
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
7-Oct
21-Oct
4-Nov
18-Nov
2-Dec
16-Dec
30-Dec
13-Jan
27-Jan
10-Feb
24-Feb
10-Mar
24-Mar
7-Apr
21-Apr
5-May
19-May
Week Ending


Positive Influenza Laboratory Results
Reported to NYSDOH - By Season
2017-18 (N=128,252)
2016-17 (N=65,336)
2015-16 (N=49,003)
2014-15 (N=50,874)
Number of Reports
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
7-Oct
21-Oct
4-Nov
18-Nov
2-Dec
16-Dec
30-Dec
13-Jan
27-Jan
10-Feb
24-Feb
10-Mar
24-Mar
7-Apr
21-Apr
5-May
19-May
Week Ending

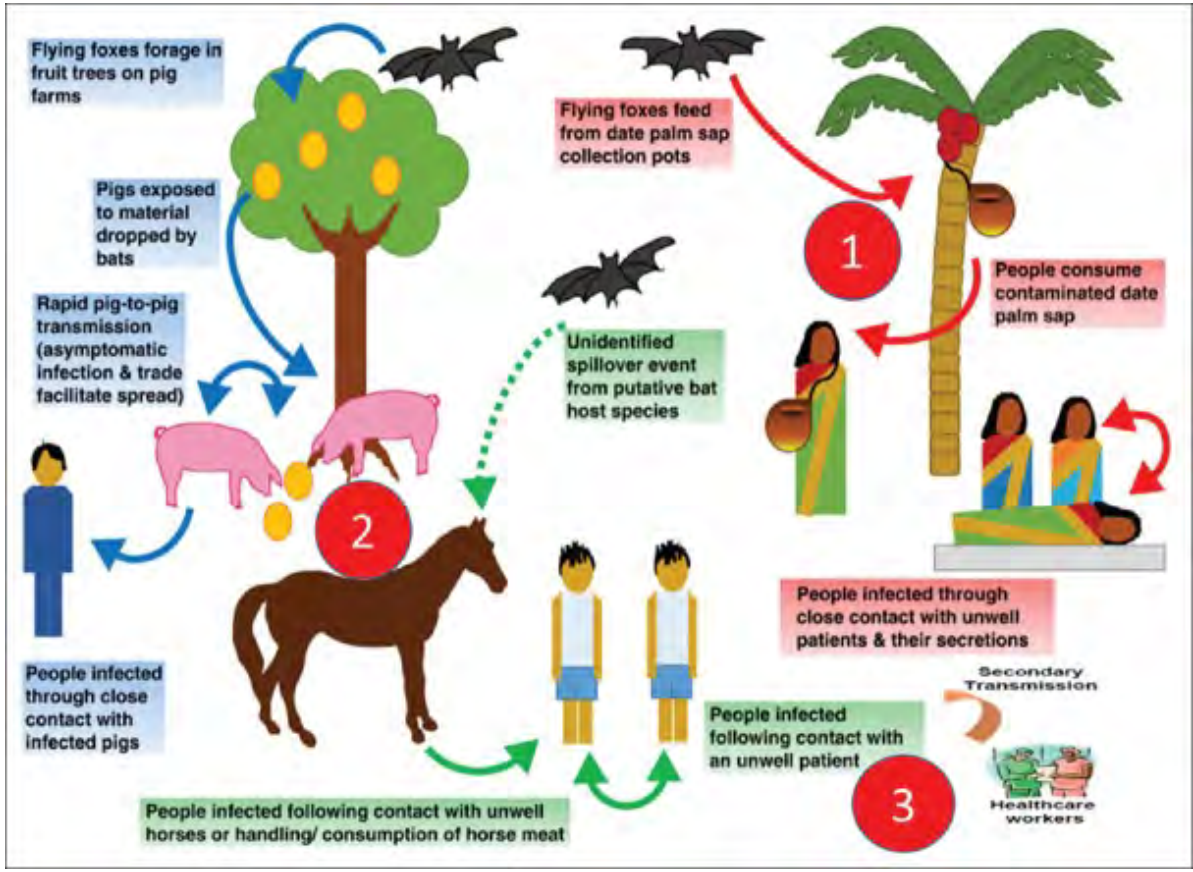
Nipah Virus: Kerala, India (May-June 2018)

- 2 young men fell ill after cleaning “bat infested well”
  - Other family members + HCW became ill
- Over 3 weeks, 19 infected, 17 died
  - Most cases spread person to person
- GHSA funded trainings started in 2014 prepared labs and public health to identify and respond
  - Hotline set up, special transport used, care in private isolation ward
  - Followed EVD model for safe/dignified burials

Nipah Virus

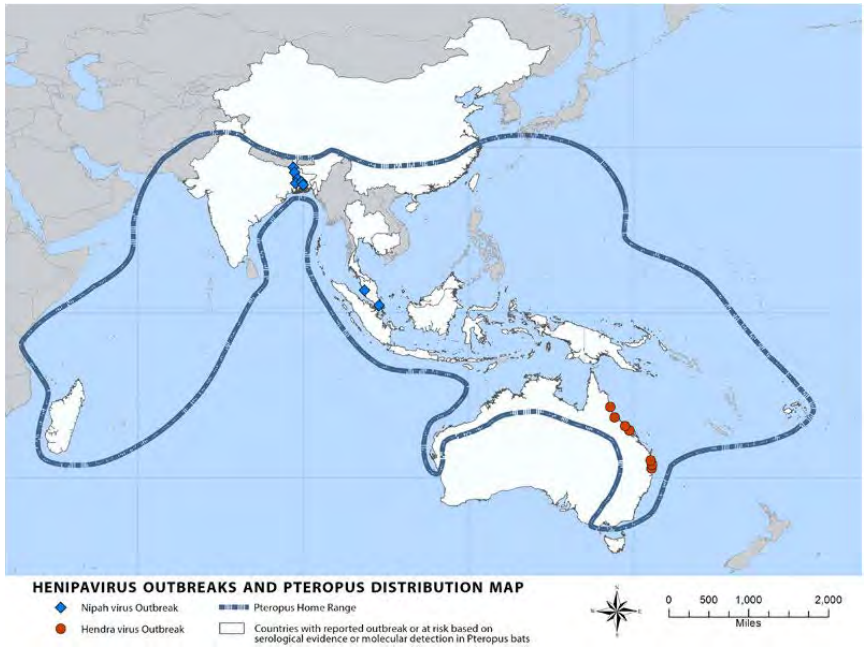
Prior Outbreaks

- Malaysia (1998): 300 cases
  - Human contact with pigs
- Bangladesh (multiple): >200 cases
  - Fruit bat contaminated date palm sap
  - Ongoing sporadic cases annually
- India (2001, 2007, 2018)
  - Most cases were spread human to human
  - In 2001 33 HCWs and hospital visitors infected



Nipah Virus

- Transmitted by fruit bats and other infected animals
  - Case fatality 40-75%
  - Incubation period = 5-14 days
- Symptoms
  - Acute respiratory symptoms
  - Encephalitis = fever and headache → drowsiness, disorientation and confusion → coma
- Infection control→ droplet and standard (min)
- No treatment or vaccines

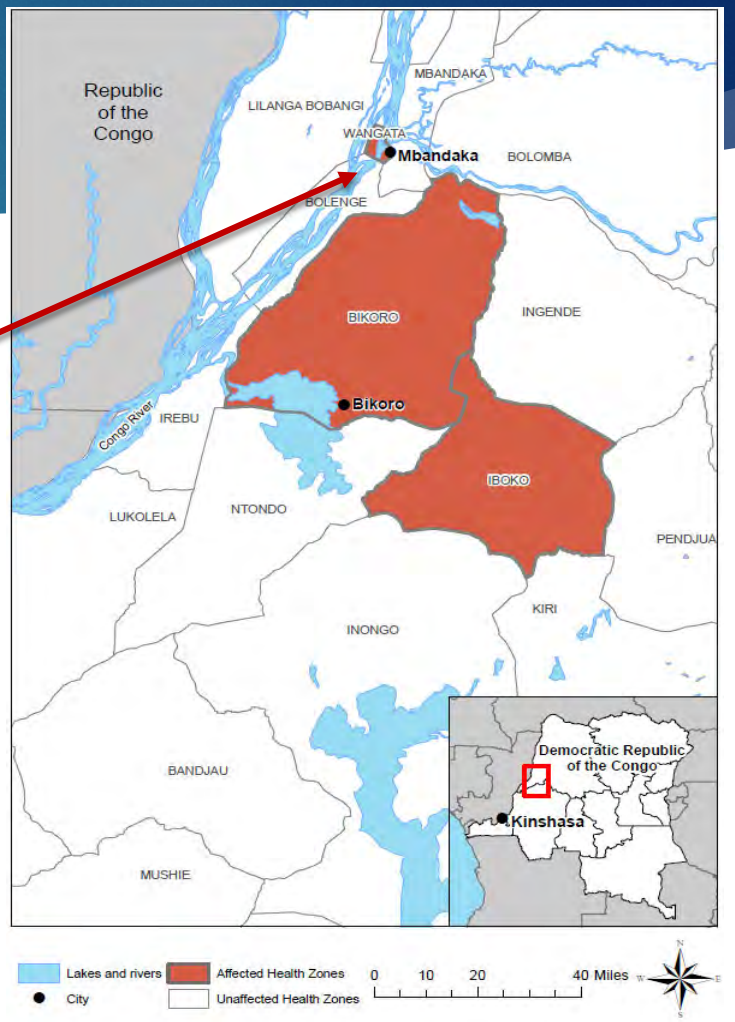


Nipah Virus Distribution Map

Ebola 1.0: May—July 2018

Democratic Republic of the Congo

- May 3, 2018, DRC reported a cluster of 21 suspected EVD cases in remote Bikoro region
  - Remote area but on major river trade route
- First wide-scale use of rVSV-ZEBOV vaccine
- Rapid international and cross-border response
  - Port of entry/congregate setting screening, vaccinations, mobile diagnostic lab, etc.
- Cases = 54 likely, 38 confirmed
  - Deaths = 33 (61% CFR)
- One returned HCW evaluated in Dever for EVD→ neg



Democratic Republic of Congo, Bikoro, Iboko, and Wangata health zones had confirmed cases of Ebola.

Source: CDC, WHO

Ebola Vaccine

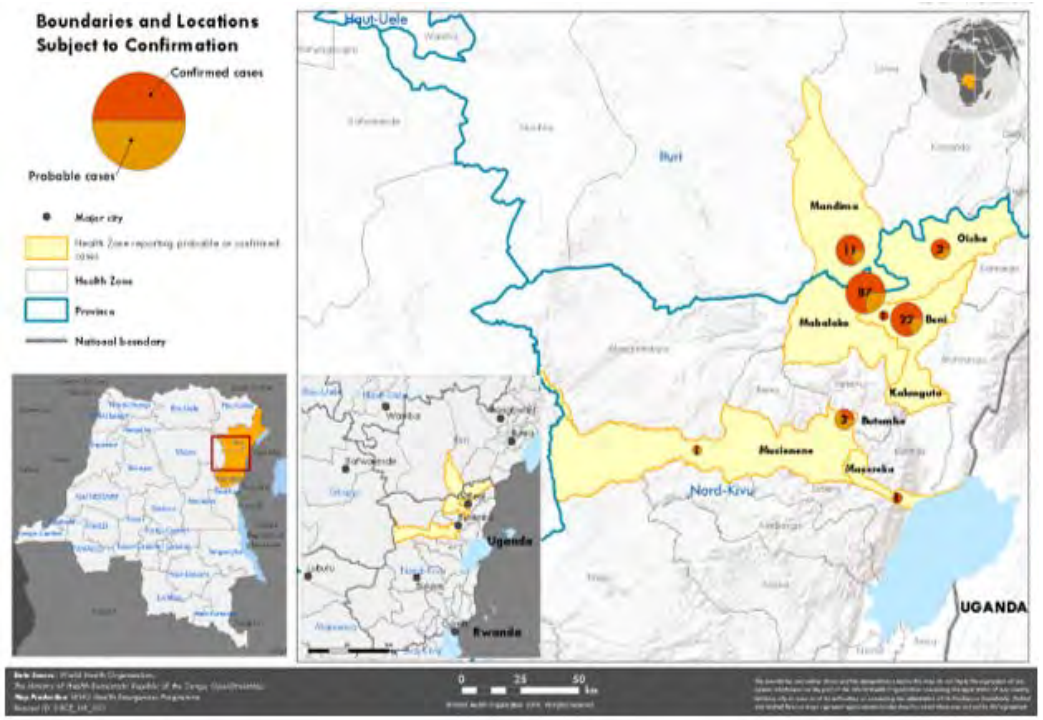
- rVSV-ZEBOV → Investigational vaccine protective against Ebola Zaire strain
- Vesicular stomatitis virus (VSV) vector + EVD protein
- Initially studied in later phase of W. Africa outbreak
  - 16K volunteers received (Africa, EU, US)→ safe and effective immune response
- Use ring vaccination strategy
  - Contacts and contacts of contacts
  - Local and international healthcare workers in affected/at-risk areas

Restrepo, *Lancet* (2017); Gsell, *Lancet (*2017); Restrepo, *BMJ* (2015)

One week later…Ebola 2.0

Democratic Republic of the Congo (ongoing)

- July reports of 26 people with suspected EVD in northwestern DRC
- Same strain as previous outbreak (*Zaire*) but unrelated
- Ring vaccination + experimental therapies
- Significant challenges
  - Conflict zones, porous border region, community resistance, healthcare transmission (19 HCW cases)
- Cases (9/17) = 142 likely, 111 confirmed
  - Deaths = 97 (68% CFR)



Confirmed and probable Ebola virus disease cases by health zone in North Kivu and Ituri provinces, DRC

Source: WHO

Monkeypox Virus

Nigeria (ongoing)

- Re-emerged September 2017, found in 26 states
- 262 suspected cases→ 7 deaths

United Kingdom (September 2018)

- Unrelated cases being treated in London and Liverpool
- Both cases with exposures in Nigeria

Other affected countries

- Current outbreaks in Nigeria, DRC
- Cameroon, CAR, Liberia with recent cases

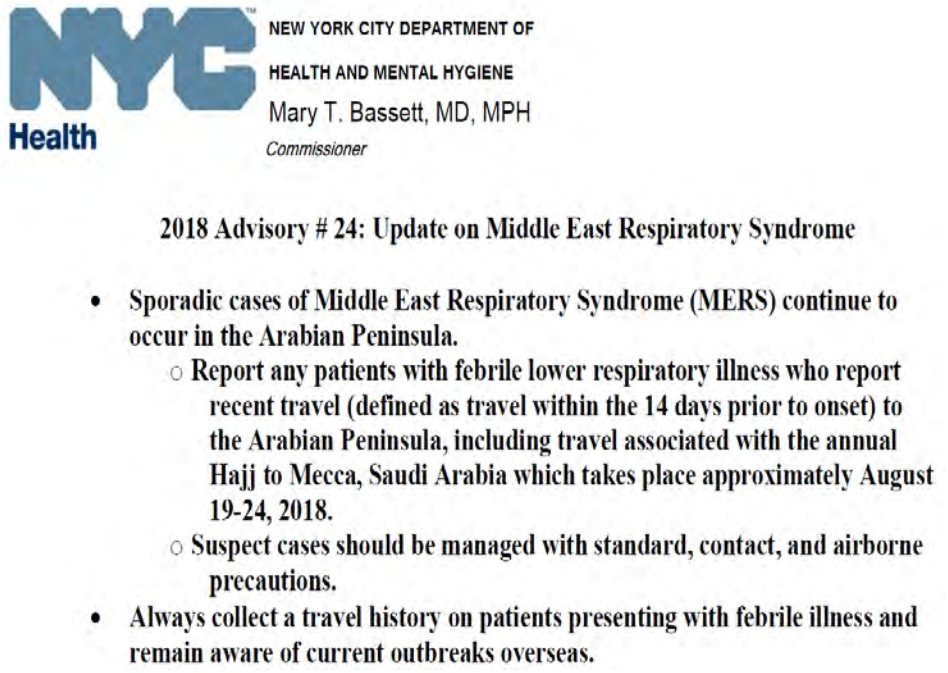
Monkeypox Virus

- Milder cousin of smallpox
  - Case fatality rates up to 10%
- First discovered in DRC (1958)→ endemic to central/west Africa
  - USA outbreak in 2003 with 47 likely cases
- Symptoms → fever, chills headache, muscle aches, backache, large swollen lymph nodes
  - Rash 1-3 days later; starts on face then spreads to other parts of the body
- Requires very close contact to spread person to person
- Infection control→ **airborne, contact, standard precautions**
  - Smallpox vaccination 85% effective

MERS-CoV Updates

- Ongoing sporadic cases in Saudi Arabia (KSA)
- Hajj recently finished (Aug 19-24th)
  - Uptick in to DOHMH→ no cases identified
- UK diagnosed 1 case (8/16/2018)
  - Camel exposure in KSA
  - Traveled while symptomatic
- South Korea diagnosed 1 case (9/8/2018)
  - Returned traveler from Kuwait
  - Initially presented with diarrhea→ isolated quickly

August 19, 2018 Health Alert



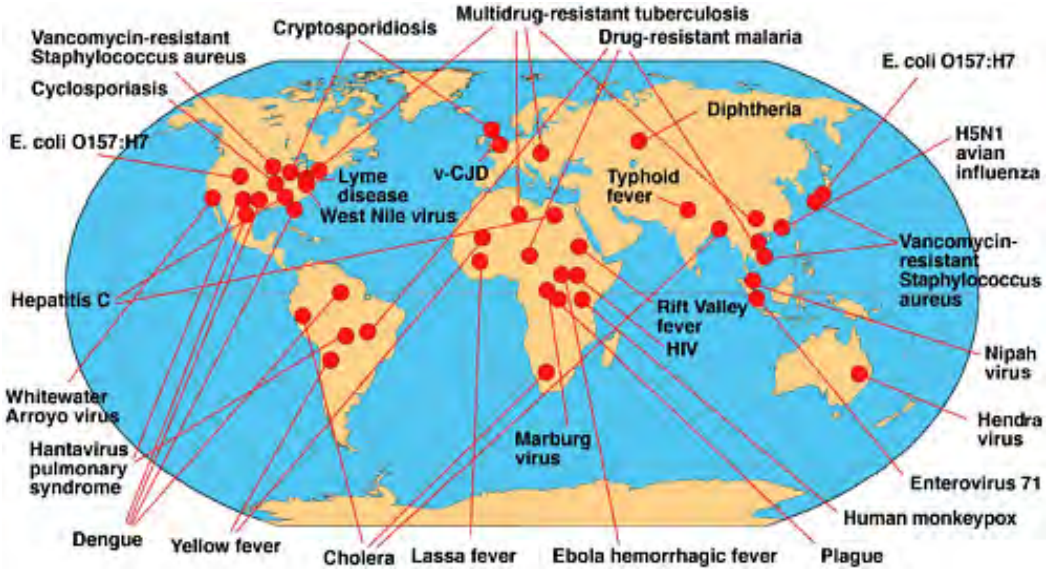
NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Mary T. Bassett, MD, MPH
Commissioner

2018 Advisory # 24: Update on Middle East Respiratory Syndrome

- **Sporadic cases of Middle East Respiratory Syndrome (MERS) continue to occur in the Arabian Peninsula.**
  - **Report any patients with febrile lower respiratory illness who report recent travel (defined as travel within the 14 days prior to onset) to the Arabian Peninsula, including travel associated with the annual Hajj to Mecca, Saudi Arabia which takes place approximately August 19-24, 2018.**
  - **Suspect cases should be managed with standard, contact, and airborne precautions.**
- **Always collect a travel history on patients presenting with febrile illness and remain aware of current outbreaks overseas.**

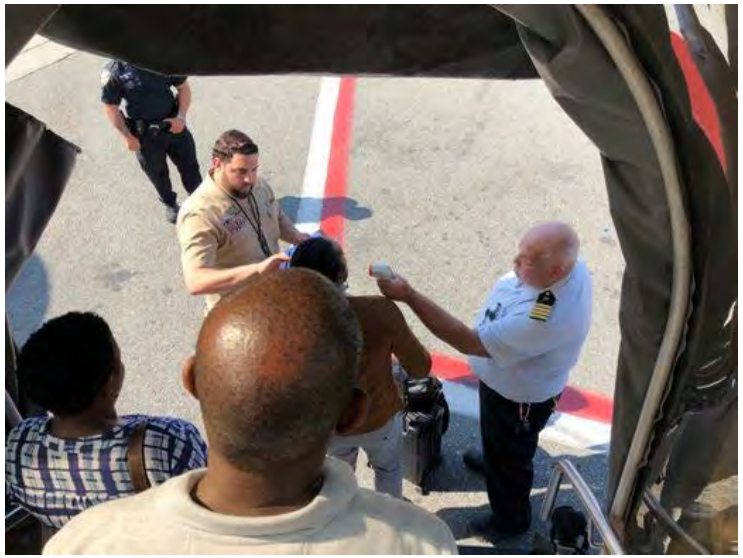
NYC Health Alerts: https://www1.nyc.gov/site/doh/providers/resources/health-alert-network.page

What's on Our Radar for 2018 and beyond?



JFK Incident: September 6, 2018

- Call from Emirates that ~100 patients ill on flight from Dubai
  - 549 passengers on board
  - ~ 100 returning from the Hajj
- CDC Quarantine Station and FDNY staff evaluated
  - 11 patients reported symptoms (1 was GI)
  - 3 of those with fevers
- Evaluated at Jamaica Hospital
  - 2 with influenza, 1 with rhinovirus
- Next day→ subsequent incidents in Philadelphia + Boston



New Invasive Tick Species

- **Asian longhorned tick** (*Haemaphysalis longicornis)*
- Native to Asia and Pacific Islands
- Found in NJ sheep farm (Nov 2017)
  - Now in 7 states including NYC suburbs
- Hearty and difficult to eliminate
- Carry diseases in Asia but no infections found in US (for now!)

The ear of a sheep in New Jersey covered with long-horned ticks. This infestation was the first confirmed appearance of the new tick species in the U.S.

NYT August 6, 2018

Focus on Pandemic Influenza

- **100 year anniversary of the 1918 pandemic!**
- Opportunity to review plans
  - Respiratory surge capacity
- New flu medication fast-tracked for approval
- Universal vaccine closer but still long way away
- Upcoming exercises
  - DOHMH Pandemic Influenza TTx (October)
  - NYC H+H “PanX” Workshop (November)

Fever/Travel Screening Resources

- **DOHMH now providing regular updates of current outbreaks in NYC and around the world:** https://www1.nyc.gov/site/doh/providers/reporting-and-services-main.page
  - NYC Health Alerts: https://www1.nyc.gov/site/doh/providers/resources/health-alert-network.page
- **Staff can also refer to the following sites for outbreak information**
  - ProMed: https://www.promedmail.org/
  - Travel Clinical Assistant: https://dph.georgia.gov/TravelClinicalAssistant
  - Healthmap: http://www.healthmap.org/en/
  - CDC: cdc.gov/outbreaks

Thank You

Mary Foote, MD, MPH

mfootemd@health.nyc.gov

347.396.2686

Community Engagement Framework

- **Jacqlene Moran**, Community Engagement Specialist, NYC Department of Health and Mental Hygiene, Office of Emergency Preparedness and Response

PUBLIC HEALTH EMERGENCY MANAGEMENT THROUGH A COMMUNITY ORGANIZING AND SOCIAL JUSTICE LENS

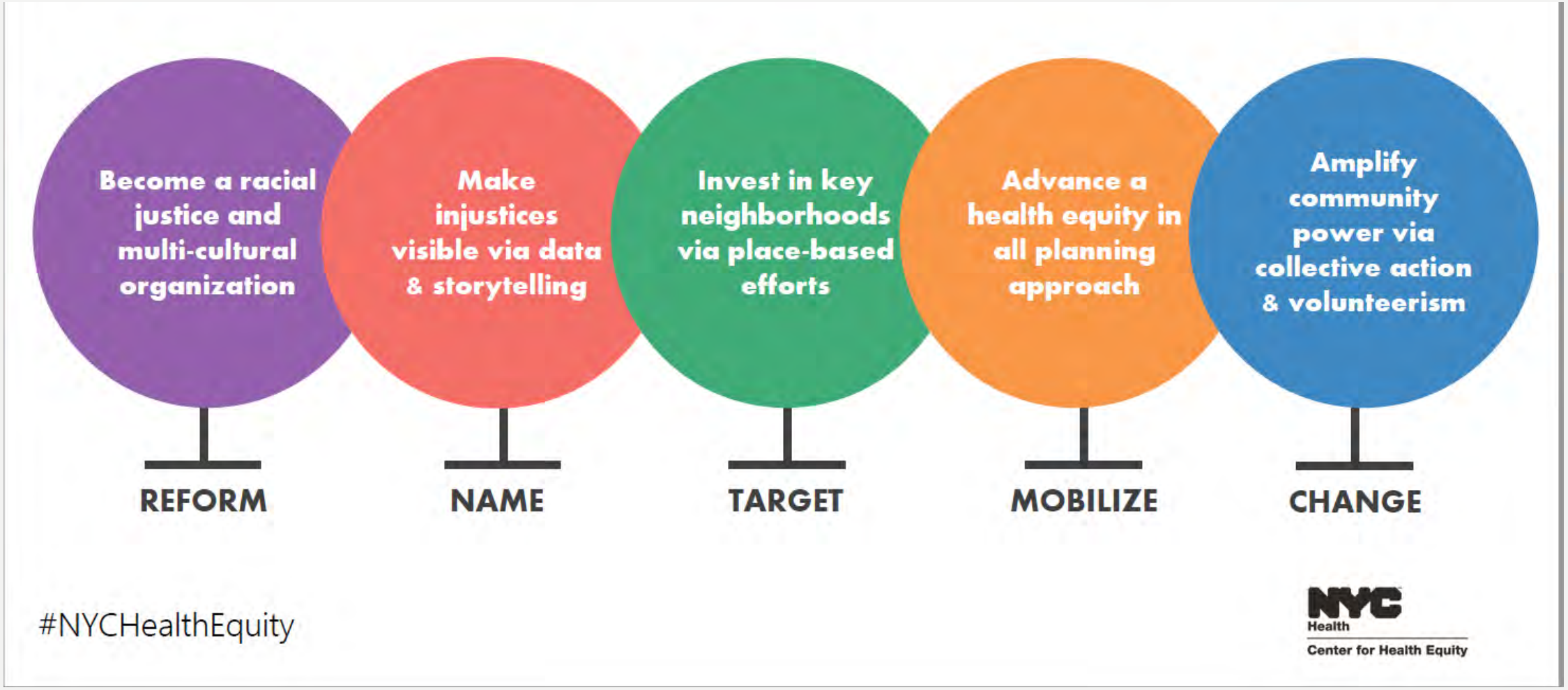
NYC HEALTH CARE COALITION LEADERSHIP COUNCIL MEETING

RACE TO JUSTICE
ADVANCING RACIAL EQUITY & SOCIAL JUSTICE

Problem Statement

Structural racism is at the root of the health gaps we see by race. Years of racist policies and unjust practices across our institutions have led to worse health outcomes in communities of color than in white communities. For example, discriminatory housing policies in the 1950s created racially segregated neighborhoods and concentrated poverty in communities of color. The results of these policies are visible today in the limited resources and opportunities in low-income areas, which are largely communities of color. But the laws and practices that perpetuate racism were created by people and can be undone by people as well.

NYC DOHMH FOCUS ON HEALTH EQUITY

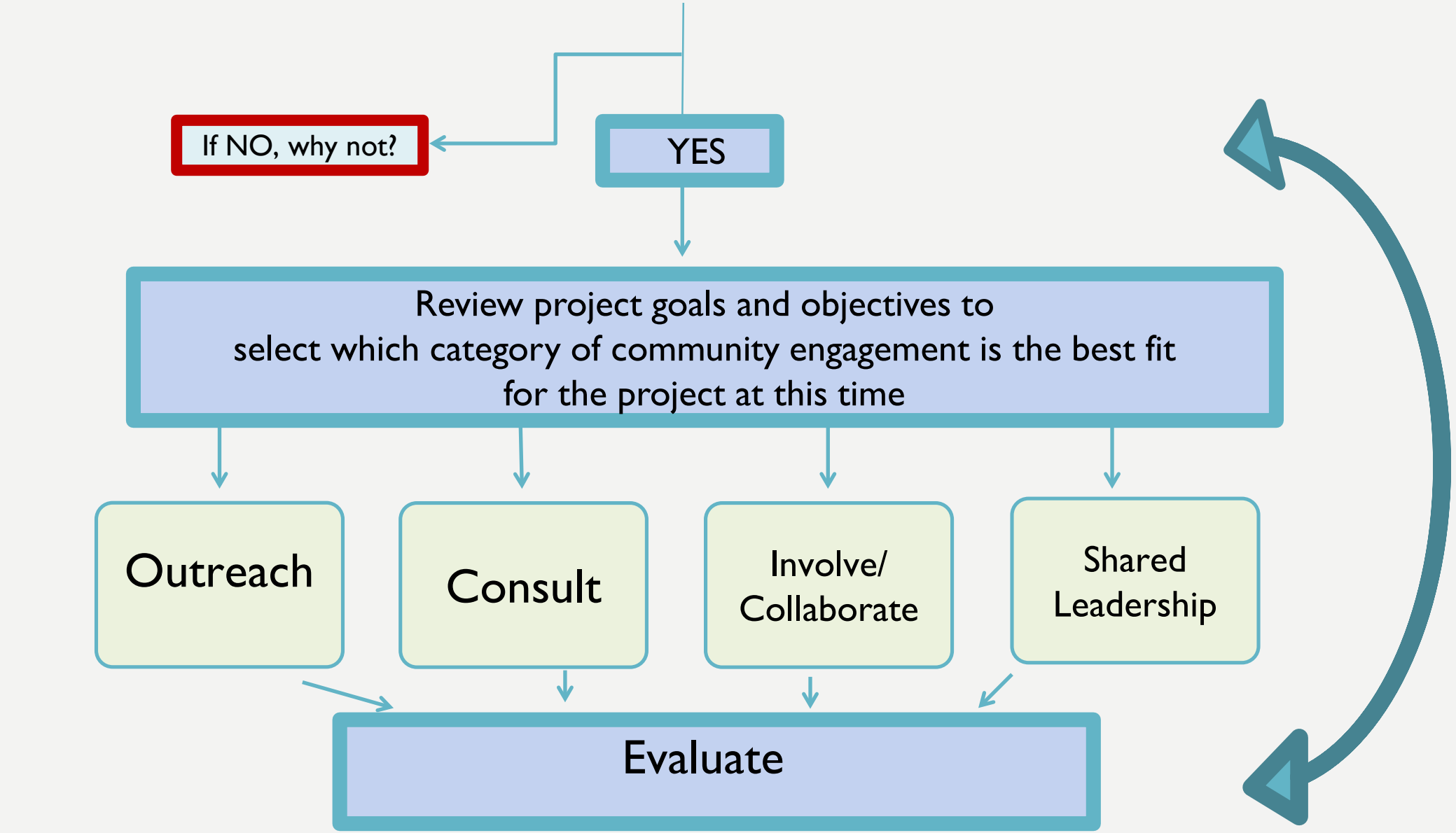


NYC DOHMH COMMUNITY ENGAGEMENT FRAMEWORK

Meaningful Community Engagement Advances Health Equity

- Tapping into the expertise and organizing capacity of communities
- Understanding communities know their own assets and barriers best
- Building and maintaining trusted relationships ensures program sustainability and success

CONSIDER **COMMUNITY ENGAGEMENT** FOR EVERY PROJECT



OUTREACH

DEFINITION

- Establish communication channels with communities for relevant information dissemination
- DOHMH-led and community informed

EXAMPLES

- Community informed media campaigns, health fairs, presentations, emergency notifications, newsletters

CONSULT

DEFINITION

- Seek information from stakeholders and incorporate their input into systems, policies, programs, and interventions
- DOHMH-led and community informed

EXAMPLES

- Listening sessions, community consultations, town halls, needs assessments, advisory groups, etc.

INVOLVE/COLLABORATE

DEFINITION

- Form partnerships with stakeholders to achieve common goal
- DOHMH-community shared decision making.

EXAMPLES

- Coalitions and workgroups with shared responsibility in program development and implementation

SHARED LEADERSHIP

DEFINITION

- Share ownership of a problem and its solution through a community-driven process
- Community-led shared decision making

EXAMPLES

- Community-based participatory research, grassroots initiatives, planning groups with authority to guide DOHMH in decision-making

INTEGRATING INTO PREPAREDNESS & RESPONSE

Neighborhood-based approach to emergency management

- Goal: Bridging connections between healthcare coalitions and community-led coalitions
- Outcome: Better coordinate disaster response and recovery services in impacted communities
- Next Steps: Share examples of operationalizing the community engagement framework in our work

QUESTIONS?

Thank You!

JACQLENE MORAN

Community Engagement Specialist

Office of Emergency Preparedness and Response

NYC Department of Health and Mental Hygiene

Email: jmoran@health.nyc.gov

Phone: 347-396-2937

nyc.gov/health/emergencyprep

Election Results

Final Remarks and Adjournment

Thank You!

“Emergency Preparedness is a team sport”

-Eric Whitaker

NYC Health