

# You May Be Prepared, But Are You Ready?

---

Michael J Consuelos, MD MBA  
Principal, MJC Solutions

# Disclosures

---

- I have no disclosures pertinent to the material covered in this presentation.
- I will not be endorsing any commercial products or services in this presentation.

# Today's discussion

---

1. What did we learn from past events?
2. People run hospitals
3. Resilient communities
4. Table top exercise
5. Parting advice

**Before we get started**



# What did we learn from 2017?

- Hurricane Season
  - 3 hurricanes in four weeks
  - More than 260 deaths
  - Estimated \$300 billion in damages
- Hurricane Harvey
  - Five days to harden facilities, pre-position supplies, and plan patient evacuation (compared to Katrina)
  - Texas Hospital Association report:
    - In-house daycare
    - Chaplains and social workers to manage stress

# Route 91 Harvest Music Festival (2017)

---

- Closest trauma center received few victims
- Nearly 200 victims were transported to Sunrise Hospital
- Approximately 90% of victims arrived by private vehicle
- Instant activation of plans and all-hands approach
- Victim unification and family notification required new methods
- It was a Sunday night

# People run hospitals

---

- Impact on the people who take care of the people
- Family separation
- Loss of life and property
- Childcare
- Public transportation
- Burn out

# Will they come to work?

- Survey of 6,428 health care workers from 47 NYC/metro health care facilities on ability and willingness to work during an event:

	Able to work	Willing to work
Weather emergency	48.9%	80.4%
Bioterrorism	68.6%	61.1%
Chemical terrorism	71%	67.7%
Mass casualty incident	82.5%	85.7%
Environmental disaster	80.6%	84.2%
Radiation terrorism	63.8%	57.3%
<b>Untreatable infectious diseases outbreak</b>	<b>63.5%</b>	<b>48.4%</b>

Qureshi et al, J Urban Health.  
2005 Sep; 82(3): 378–388





# Readiness and chronic disease

- Hospitals may be the only functional source of care in the community
- Hurricane Katrina (2005):
  - 21,673 visits to New Orleans ED's in immediate two months:
    - 24.3% chronic disease conditions
    - 7.2% for medication refills
    - 5.7% or routine care

Sharma et al, Disaster Med Public Health Prep. 2008 Mar;2(1):27-32

# Sandy (2012) and vulnerable populations

---

New Jersey all-cause death rates for the month following the storm:

- 6% increase
- Impacted areas had higher rates, peak at 12%
- Elderly (76 y/o and older) increased by 10%

Kim et al, Am J Public Health. 2017 August; 107(8): 1304–1307

# Community readiness

- Patients lose access to providers and pharmacies
- Loss of infrastructure can lead to unsanitary conditions
- Post-acute care facilities at increased risk of failure
- Home health workers during a pandemic:
  - 43% willing to care for current patients
  - 27% willing to care for new patients

Gershon et al, Am J Disaster Med. 2010 Jan-Feb;5(1):15-26

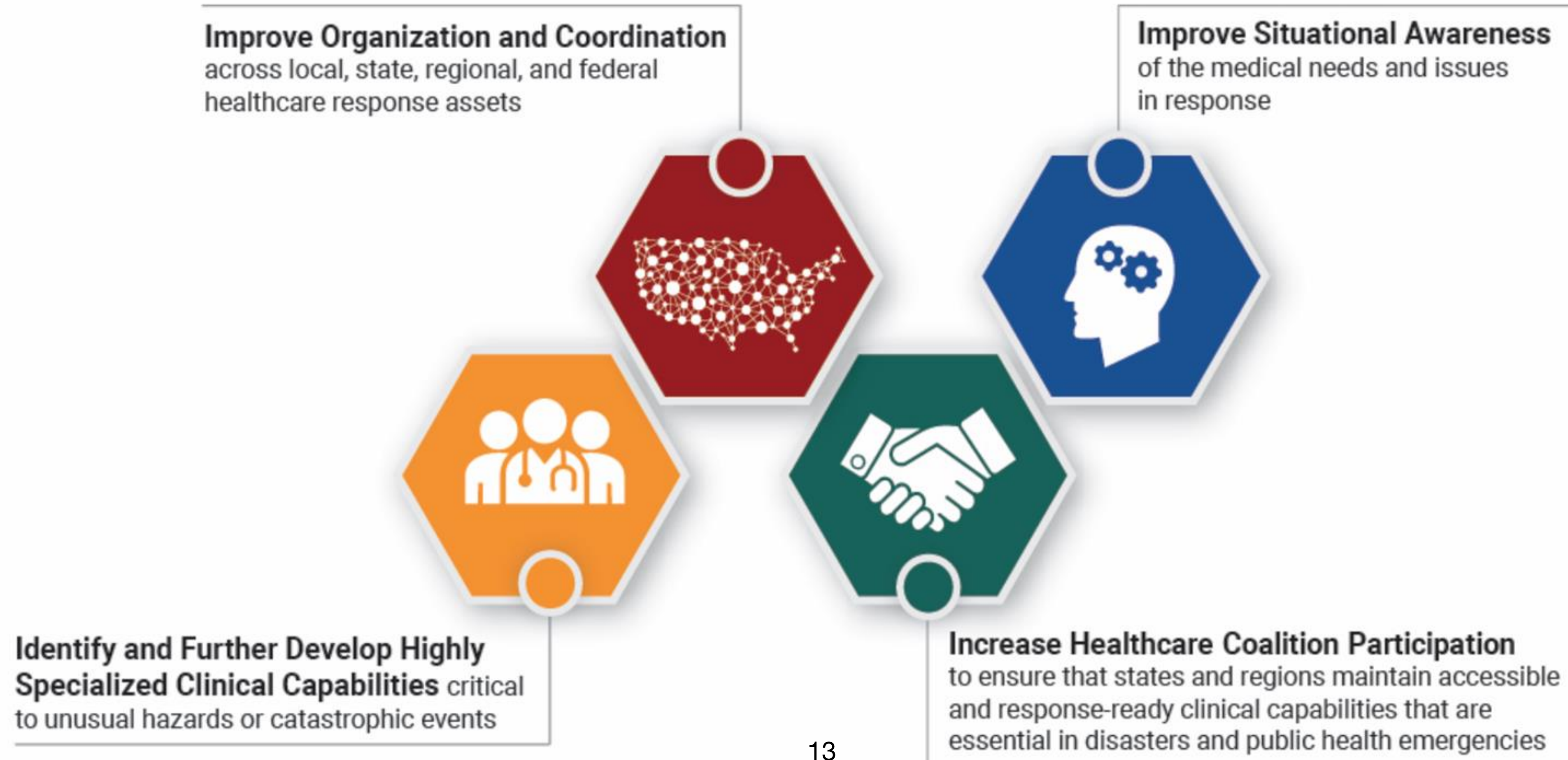
# Increase community readiness

---

- Plans need to include strategies to build a more resilient community
- EMR/registries can identify vulnerable populations
- The role of Community Health Needs Assessments (CHNA)
- Identify partners in the community

# ASPR Regional Approach

## Regional Disaster Health Response System Goals



You May Be Prepared, But Are You Ready?

Questions before we discuss your readiness?

# Table Top Exercise

- The following discussion is an exercise.
- All details are fictional, but based on real-world possibilities (no zombies)
- The goal is to quickly pressure test your assumptions about your readiness to respond to a novel infectious disease threat.

# Situation

- During the past 2 months a new influenza-like virus has been rapidly spreading throughout the US.
- The first cases were seen in Asia, then the west coast, and within 6 weeks cases were seen in the Lehigh Valley.
- Symptoms are rapid onset of runny nose and cough, fever and headache.
- Viral shedding occurs 24hrs before onset of URI symptoms and lasts for 48hrs after fever has subsided.
- The illness tends to last 3-5 days in the least severe cases.



# Situation

- The novel virus has a mortality rate as high as 30%, highest in susceptible populations (infants, elderly, pregnant moms, and chronically ill).
- Death is usually from respiratory failure.
- A diagnostic test and vaccine are under development and antivirals seem to have some effect if started in the first 1-2 days.
- The key to survival in severe cases seems to be supportive care, usually mechanical ventilation, some cases ECMO.

# Today in the US

- It is February and the “regular flu” is present in lower numbers than usual, but all hospitals are near or at capacity.
- The CDC expects at least 33% of the population will contract the new virus.
- It is clear that densely populated areas have higher rates of infection and people are fleeing cities.



# Today in this region

- Your ED and inpatient facilities are at capacity
- Area school districts, colleges, and employers are discussing closing schools/businesses.
- Only 15% of your workforce has been infected
- The CDC and PA-DOH are developing guidelines for infection control, anti-viral treatment, and return to work/guidance materials that need to be communicated/adopted.



# Let's discuss your readiness

---

For the next 5 minutes turn to the person(s) next to you and discuss:

1. What are your biggest concerns?
2. What are your priorities?

# Partners

---

- Southwest Airlines model
- Families
- Linens
- Food
- Cleaning
- Facilities
- Outpatient practices
- Pharmacies
- Dialysis units

# What would improve your readiness?

---

For the next 3 minutes turn to the person(s) next to you and discuss:

1. What is your role in improving readiness?
2. What is your next step?
3. When are you going to discuss this with your team/supervisor?

# Parting advice

---

- Continue the conversation
- Treat every flu season as a disaster
- Every disaster has a lesson...look for novel challenges and solutions
- Prioritize maintaining business continuity
- Build a resilient community
- Develop relationships to engage other partners



Michael J. Consuelos, MD MBA  
mjconsuelos@mac.com  
484-661-6515