Disaster Response and Recovery

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Topics Covered

• Disaster response
  – Incident command
  – Vivarium
    • Animals
    • Staffing
  – Personnel

• Disaster recovery
  – Short-term measures
  – Other considerations and innovative planning
The Storm

- Kinetic energy 5.8 (NOAA scale 0-6)
  - Equivalent to 5 Hiroshima bombs; 2.7x Katrina
- > 250 deaths; est. cost of $65.5 billion
- Storm surge
  - Building designed to withstand a storm surge 20% greater than the largest surge in recorded history in NYC
- Minutes to evacuate staff in vivarium
- Generators on the roof
- Fuel tanks in the basement per NYC code
CHALLENGES

I expected times like this - but never thought they'd be so bad, so long, and so frequent.
Incident Command

• Integrated institutional disaster response

• Participants:
  – Animal Resources Director/AV
  – Facilities and Environmental health and safety
  – Information technology
  – Institutional senior leadership
  – Public relations
  – Purchasing
  – Human resources and labor relations
It’s All On You
BELIEVE IN YOURSELF
Because The Rest of Us Think You’re an Idiot.
Responsibilities

• Everyone in the institution has their area of focus
  – Don’t assume everyone will (or is able) to drop everything and assist you

• Need to ensure multiple people are capable of leading the vivarium disaster response
  – Don’t assume the Director or AV will be onsite
Responsibilities

- Issues that previously would have required multiple meetings and much hand wringing – now just require decisions
- Remember – indecision is a decision
- Differences between clinical and research staff become more apparent
Vivarium

• Personnel safety comes first
  – May be working in an unfamiliar site
  – Need to know the emergency egress(es)

• Began by rounding all animal facilities and satellites for: animal health, food, water, +/- bedding, temp, RH
  – Had already stockpiled food, bedding, etc.
  – Bottled water (water cooler) for everything
Vivarium

- Consider a stash of cash (few thousand)
- Relocated satellite animals for easier care
- Store emergency supplies in multiple locations
To what point do you allow environmental parameters outside the *Guide* or Animal Welfare Act before euthanasia?

- Days? Week(s)?
- Assuming the animals are clinically normal….
- Are you going to euthanize everything because there are no air exchanges but temp and relative humidity are OK?
Vivarium

• Just because the storm/earthquake/event has passed….doesn’t mean the disaster is over
  – Couple weeks after the storm, another building was not going to resume utilities
  – ~4,000 cages; 8 different species; 50 PIs
  – Winter is coming….

• Recommend local institutions determine what housing can be offered in a disaster
Smilow rescue
Smilow Rescue

- Disaster plan included moving lower rows of cages to upper rows on the racks
- Immediately stated that animal resource staff would NOT be the ones cleaning up
- ~10 days after the storm, reports from hazmat team that there was movement in upper rows
- Great…..Now what?
Staffing

• Don’t assume people will come to work just because they are “essential personnel”
• Effective disciplinary program
• Have people staying onsite in advance
• Make it as comfortable as possible
  – Hotel room(s); food (before, during, after)
• Cell phones and non-institutional email
  – Consider Twitter feed; proprietary systems
Press
CLUELESSNESS

There are no stupid questions, but there are a lot of inquisitive idiots.
• Myths from my residency training:
  – Lab animal vets don’t speak to the press
  – Your PR people will take care of everything
  – Just give them a briefing about animal research

• Realities I learned the hard way:
  – No one knows your operation as well as you
  – Reporters focus on the most meaningless info
  – If you want something done right, do it yourself
Press

- News cycle doesn’t care of you’ve been working almost 48 hrs with no sleep
- “Not available for comment” = “Not sitting by the phone with nothing to do but answer endless questions”
- Encourage staff not to read internet comments
  - Healthy, intelligent, well-adjusted people don’t spend their days commenting on internet articles
Personnel

- Now members of an “exclusive club”
  - Find a way to communicate this fact to outsiders
- Mandatory PTSD counseling
- Look for hidden opportunities with previously difficult staff members
- Look after each other
  - Make sure people are eating, sleeping, home OK
Anger Management
SANITY
Minds Are Like Parachutes. Just Because You’ve Lost Yours
 Doesn’t Mean You Can Borrow Mine.
People I Wanted to Punch

• Anyone who asked if I had power back at work yet

• Anyone who said, “Hope things are back to normal now. So, can you do [insert completely petty task] for me?”

• Anyone who said “OMG – I lost power for a whole week!”

• Anyone who shared their Monday morning quarterback comments
RECOVERY

Time Heals All Wounds. But It Usually Leaves a Pretty Big Scar.
Short-term Measures

• Replacement animals
  – Cryo makes it much easier
  – Takes time to bring back and need housing

• Replacement facilities
  – Temporary and permanent
  – Better hope you’ve been nice to people

• Recognize that some investigators are going to leave no matter what you do
TROUBLE
LACK CAN’T LAST A LIFETIME UNLESS YOU DIE YOUNG.
What can we do to really plan?

• Tabletop exercises are not enough
  – Reading comprehension test of disaster plan
  – Doesn’t tell you how anyone would perform in an actual emergency

• Tactical Decision Games (TDGs)
  – Developed by the military
  – Civilian use by industrial psychologists
    • Crichton, M. *Horiz. Psychol.* 10, 7–22 (2001)
  – Can’t simulate a disaster, but failure is not an option
What can we do to really plan?

– Participants are given an emergency scenario and asked to make decisions under stress
  • Distractions, time limits, role play
  • Recommended for ALL levels of employees

– What really matters are the human factors (non-technical skills)