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Training for a disaster

I began writing this column the day after Hurricane Sandy flooded the northeast coast of America. Her effects actually reached to the Mississippi River and far into Canada. The devastation at New York University, where thousands of genetically engineered mice were lost and other biological research materials were destroyed, has been widely reported¹. Many colleagues prepared for the 'hit' by checking on equipment, ensuring that enough provisions were available and even staying overnight in their offices.

Disasters come in all shapes and sizes, but few are as big and full of impact as Sandy was. In southern California where I live and work, the disaster profile consists of earthquakes and major fires. Elsewhere the top concerns may be snow storms, ice, loss of electricity, HVAC breakdown, acts of terrorism and more. Regardless of the manifestation, all lab animal facilities should have specific disaster-response plans that are tailored to their own circumstances. This makes me ponder how we as trainers can be a part of the preparations. What role can we play?

Curiously, the week before, I had taught about disasters in my lab animal management class. I then wrote the quiz on the material as follows, combining it with concepts of good laboratory practice (GLP): "Imagine you are in AHS369 lab, doing a rabbit procedure/exercise. There is an earthquake of reasonable magnitude. OOPS!—there is no disaster plan. No SOP. What should the policy, the plan and the SOP be? Write 10 items that should be included." I think now of how auspicious this experience was for myself. And I wonder what other trainers do to help prepare for disasters. So I asked a few colleagues who have personal experience in such matters how they think outside of the box, when they don't even know what kind of box they'll be in. How do they train for disasters?

Denise DiFrancesco, who experienced Sandy in Philadelphia, PA: "Most institutions and companies have emergency disaster planning meetings and documents, and some even perform mock practice sessions. In the

summer of 2012, we at Wistar Institute's Animal Facility had revisited our disaster planning documents. But there was one point we had not expected: the mayor called a state of emergency keeping all vehicles off the highways. I made the decision to drive to the facility Sunday night and sleep there for the following two nights. I think going forward we will see more of these extreme storms, and this was definitely a practice run to see how we handled things, how could we have done better and what did we learn."

Stacy LeBlanc, who experienced flooding in Houston, TX: "At MD Anderson, we train, train and train some more. Each year, we hold our Emergency Preparedness training where we cover our responses to all sorts of emergencies. This training proved its effectiveness during Tropical Storm Allison when several of our staff members returned to the facility and implemented the Emergency Plan without having to be called. You can have the best emergency response plan ever written, but it's worthless if your staff doesn't know what to do, how to do it and when to do it."

Kim Overhulse, who experienced earthquakes in southern California: "I have incorporated a safety section in the new employee orientation. We have an SOP that covers our disaster response, such as what to do if you are actively working with an animal when a fire alarm goes off or an earthquake happens. My role is to provide employees with the information and with the physical orientation to exits. I issue a reminder every year during the ShakeOut (an earthquake drill) and refer everyone to the SOP and company program for emergency response."

Jackie Newell-Hunt, of the National Institutes of Health's Animal Resources Team: "Tabletop exercises are one of the most effective tools in our training arsenal. They can be tailored to any audience, type of scenario and time frame. We ask a facilitator to provide a disaster scenario to the group and then facilitate a discussion about how the program would respond and recover. Additional information or

interjections are provided as the mock situation progresses. These exercises provide opportunities for testing lines of communication and team-building and for identifying weaknesses in your preparedness training and response plans."

It's important to distinguish between disaster preparations and disaster training. Certainly, an institution can write a plan and stockpile supplies. But unless staff members are informed, these efforts may not be properly utilized. To help prepare staff members, a trainer can, for example, set up scenarios (mock disasters) to test preparedness; help the health and safety office to design teaching modules; incorporate institution-specific aspects in planning the response before, during and after the disaster; and assess whether preparedness training has taken root in the mindsets of animal care providers.

In parting, I refer readers to the chapter on "Emergency Response and Management" in *Management of Laboratory Animal Care and Use Programs*² and the article "Guidelines for hurricane and disaster preparation for animal facilities"³, both of which have additional references. Also, the "NIH Extramural Response to Natural Disasters and Other Emergencies" was recently updated (http://grants.nih.gov/grants/natural_disasters.htm). Both the Federal Emergency Management Agency (<http://training.fema.gov/EMICourses/>) and the American Red Cross (<https://classes.redcross.org/>) offer training courses on emergency preparedness.

The silver lining of Sandy's dark clouds should be improvements in disaster training.

1. Cossins, D. NYC Science Stunned by Sandy. The Scientist.com. <<http://www.the-scientist.com/?articles.view/articleNo/33109/title/NYC-Science-Stunned-by-Sandy/>>
2. Vogelweid, C. Emergency response and management. in *Management of Laboratory Animal Care and Use Programs* (eds. Suckow, M.A., Douglas, F.A. & Weichbrod, R.H.) (CRC Press, Boca Raton, FL, 2001).
3. Thomas, T. Guidelines for hurricane and disaster preparation for animal facilities. *Lab Anim. (NY)* **36**, 28–31 (2007).