

Be prepared

Scenario-based training for disasters is better than just drawing up a paper plan, say **Jennifer K. Pullium** and colleagues.

Two years after Hurricane Sandy hit the US east coast, we are often asked what we learned from the disaster. Some lessons sound trivial, such as the importance of keeping headlamps ready and accessible. Some are worth stressing: we learned that we had a good contingency plan. But the most important thing we learned is that the way people act during a disaster can be more important than the written plan.

We are veterinary surgeons and animal-laboratory managers at the New York University (NYU) Langone Medical Center. Prior to Sandy, our emergency preparation comprised lectures and exercises. This served us well, but our contingency plan did not anticipate staff who care for lab animals having to break through a ceiling and lower a basket to trained hazard-response professionals to rescue laboratory mice. Ten days into the disaster, our team was stressed, cold and exhausted. We triaged, treated and transported mice for seven straight hours until late into the night. We rescued 600 cages with thousands of mice, many of them unique strains that investigators feared were lost entirely¹.

Standard emergency preparations do not account for taxed and terrified minds, and tendencies to make poor decisions. The strength of the people in our team came from skills unrelated to their day jobs. But previous experiences came in handy — one of us (M.A.R.) served in the US Army, and another of us (J.K.P.) is a licensed pilot. Such training enabled us to make good decisions under pressure. The US military has trained soldiers for appropriate responses to stressful conditions for decades. Pilot instruction teaches people to efficiently use complex, systematic approaches in times of crisis to assess risks, instruct crews and manage stress.

These kinds of skills are not taught in typical disaster training². They should be. In the months after the flood waters ebbed, we created a series of tactical decision games to improve employees' abilities to lead responses and to assess and communicate situations. These go far beyond paper plans.

SIMULATED STRESS

Institutions typically develop plans while sitting around a conference table in a comfortable room with refreshments. Practice sessions are run with the entire staff on a warm, sunny day. They do not prepare people to act decisively. When surveyed, most animal-resource staff at our facility said that they



A steel door pushed in by Hurricane Sandy at the NYU Langone Medical Center.

would attempt to contact upper management before doing anything in an emergency. But if leaders are absent during crises, indecision could cause destructive delays. The best-written disaster plan is not worth the paper if it is printed on without people on site able to execute it.

Training can shape contingency plans to account for particular personalities. During our emergency response, we saw clear aptitudes in two people who were employed as cage-washers, an entry-level position. In the days following Sandy, these two never hesitated. They invigorated and motivated their teams, and stayed positive and focused. Leading by example, they encouraged higher-ranking personnel to keep working, even when tired and hungry. They were integral members of our impromptu rescue team, evaluating the situation and making decisions. They determined the route to transport rescued animals to another NYU Langone facility, a trek that spanned several floors and buildings without power. Had we known of their capabilities earlier, we might have made them leaders of small teams from the start of the emergency.

Training can empower personnel to feel competent to step into leadership voids. Too many training programmes look for responses guided by standard operating procedures, with predetermined 'correct' answers. By contrast, tactical decision games

simulate stressful, challenging situations and require participants to make choices without full information or clearly correct answers². Exercises that were initially developed for military use have been adapted for civilians by industrial psychologists such as Margaret Crichton. Such training is becoming standard in aviation, nuclear-power plants and medicine³. After coping with Sandy, our team created a programme for animal-care facilities.

DECISION TIME

Our exercises put trainees on their mettle. We allow too little time for people to assess disaster scenarios. Instead of analysing the situation, we demand that trainees state their next actions; we force them to make decisions on the spot. When a trainee says that he would call for help, we hand over a phone to hear what he would say. Then we ask what he will do when emergency responders or leaders reply that they are not coming. Everyone gets a turn in the 'hot seat', with individuals scrutinized both by the trainer and by their fellow participants. In our classes, distractions such as air horns, darkness and flashing lights increase stress.

People may not enjoy these exercises, but they do see the value. Working through shifting scenarios allows trainees to become confident in their thought processes and abilities. When people are reduced to stumbling responses, this is framed as an area to improve. In our exercises, much as in a real disaster, a right answer is not essential; making a decision is.

Such training can be easily incorporated into other team-building exercises in a busy work environment. We conduct disaster training annually. Staff learn crucial lessons about how to lead in a crisis. Even if the skills developed are never put to use in a real disaster, facilities, people and animals are still likely to benefit. ■

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