

## **NIEHS leads disaster research response project**

*By Eddy Ball*

NIEHS Senior Medical Advisor [Aubrey Miller, M.D.](#), shared details of a new National Institutes of Health NIH Disaster Research Response Project, dubbed DR2, at the 2014 Worker Safety and Health Technical Conference this fall in Washington, D.C.

The event was organized and hosted by the National Response Team (NRT), a consortium of 15 federal departments and agencies with interests in disaster response. The DR2 presentations included a discussion of disaster training and exercises led by NIEHS Worker Education and Training Director [Chip Hughes](#).

“Getting health researchers on-site immediately following a disaster is a must for collecting the samples and data we need to help understand any impacts on people’s health and to be able to improve our responses to prevent illness and injuries in the future,” Miller told the audience. “Disaster response research requires science on steroids to get critical information in a timely way.”

Following the conference, NIEHS and National Toxicology Program Director Linda Birnbaum, Ph.D., received a letter of thanks from NRT co-chairs Denise Matthews, a safety and occupational health specialist for the Occupational Safety and Health Administration, and Brian Kovak, an environmental scientist with the U.S. Environmental Protection Agency (EPA).

“It is vital to improve responders’ and managers’ ability to recognize risk and stress indicators and utilize improved interventions and protective actions,” wrote Matthews and Kovak. “This research will certainly advance worker safety and health.”

### **The DR2 project**

In conjunction with the institute’s NIH partner, the National Library of Medicine (NLM), Miller, Hughes, and NIEHS Clinical Research Branch Acting Director [Stavros Garantziotis, M.D.](#), along with other NIEHS staff from various programs, are leading the DR2 effort to be better prepared for performing timely disaster research well before weather, terroristic attacks, and other disruptive events strike. They are working to develop quick access to useful data collection tools, rapid development and implementation of research protocols, a national environmental health researcher network, and capacity to deploy trained researchers to the field.

In his discussion of the importance of timely disaster research, Miller referred to several events that occurred over the past 15 years, including the World Trade Center terrorist attack, Hurricane Katrina, the Deepwater Horizon oil spill, the Elk River, West Virginia chemical oil spill, and the recent Ebola response. He posed the questions that people typically want to know about each of the events — “Is it safe for communities and workers? Did our approaches to reduce harm or health impacts work? How can we better prepare for the next one?”

Since August 2013, the NIEHS and NLM team has been helping to define and achieve DR2 objectives (see graphic). A key concept of the effort includes collaboration among government agencies, across the environmental health sciences community, and among stakeholders.

The goal of DR2 is the creation of a readily accessible infrastructure that will allow researchers to look beyond the immediate devastation of disasters and understand ways to improve responses and help protect people.

According to Miller, the DR2 efforts will serve to help all researchers, regardless of the nature of the event, by helping to build needed infrastructure and processes for the collection of invaluable information. He said he hopes it will soon save scientists on the ground the precious time often lost in reinventing tools and protocols; ushering them through the lengthy approval process; and training responders and data professionals.

As part of its role as DR2 organizer and lead, NIEHS has set up a dedicated email address at [DR2@niehs.nih.gov](mailto:DR2@niehs.nih.gov) for questions and comments.



*Miller leads disaster response for the NIEHS Office of the Director. He previously served a similar role with EPA. (Photo courtesy of Steve McCaw)*



*Hughes oversees grants for training workers in disaster response and postevent remediation. Several recent grantee workshops included disaster response exercises. (Photo courtesy of Steve McCaw)*

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## Gulf Oil Spill, April 2010

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ARTICLE

Decades later, we still can feel the consequences of the Exxon Valdez oil spill. How will the even larger crisis in the Gulf impact our health? The IOM will hold a meeting June 22-23 to discuss the health issues for those living and working near the Gulf.

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### IOM Workshop, New Orleans. June 22-23, 2010

**Key Points**

- Longitudinal human health research is clearly indicated
- Health studies should begin as soon as possible
- Mental health & psychosocial impacts must not be overlooked
- Sensitive populations need to be monitored
- External stakeholders must be part of the process
- Data and data systems should be developed to support wider research efforts

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*This slide from Miller's talk underscores important components of disaster response research in the aftermath of the Deepwater Horizon oil spill. With DR2, these components should be identified before the event, not in a workshop two months afterwards.*

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## NIH Disaster Research Response (DR2) Project

Project Started Aug. 2013 and is ongoing

**Pilot project to help galvanize and accelerate needed infrastructure as part of a larger HHS Effort**

**Objectives**

1. Central repository data collection tools & research protocols
2. NLM public website: "Disaster Research Responders"
3. Rapid Data Collection Capability: baseline epi., clinical, & biospecimens
4. Environmental Health Research Response Network (EHS Network)
5. Training intra/extramural disaster researchers
6. Share & Integrate: HHS/federal response & recovery frameworks
7. Toxicology Support: information and testing (new)
8. Environmental Data: to go with human health information (new)

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*In this slide, Miller pointed to the broad objectives of an integrated response strategy.*

## DR2 milestones

### Readily available health data collection tools

- Data repository
- Public DR2 [webpage](#)  
(<http://disasterinfo.nlm.nih.gov/dimrc/dr2/disasterresearch.html>)
- NIEHS disaster response protocol

### Disaster research response network

- Coordinated broad spectrum of parties interested in improving response capabilities and responding to emergencies
- Set up ways to engage communities in research response and facilitate citizen science

### Workshops, training materials, and guidance

- Conducted a [training exercise](#) in Los Angeles to test DR2 tools and strategies
- Co-sponsored [Enabling Public Health Research During Disasters workshop](#)  
(<http://iom.edu/Activities/PublicHealth/MedPrep/2014-JUN-13.aspx>)
- Helped plan Ebola response [workshop](#)  
(<http://iom.edu/Reports/2014/Research-Priorities-to-Inform-Public-Health-and-Medical-Practice-for-Ebola-Virus-Disease-WIB.aspx>)

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