

What are our priorities?

The National Institute for Occupational Safety and Health (NIOSH) **Emergency Preparedness and Response Program** prepares for and responds to chemical, biological, radiological, and natural incidents and events. The program integrates occupational safety and health into responses to protect response and recovery workers with the help of partners from industry, labor, trade associations, professional organizations, academia, and other federal agencies.

What do we do?

- Manage policy, science, and program activities associated with worker safety and health during emergency responses and for emergency preparedness activities.
- Support the Centers for Disease Control and Prevention's (CDC) emergency response efforts:
 - Contribute to the development of intra- and inter-agency response plans,
 - Staff the Worker Safety and Health Team within the CDC's Emergency Operations Center, and
 - Participate in emergency preparedness and response training activities and exercises.
- Support the Occupational Safety and Health Administration (OSHA) during a disaster to

protect worker safety and health under the National Response Framework.

- Support the implementation of **Emergency Responder Health Monitoring and Surveillance™** by response organizations to protect response and recovery workers.
- Participate in response planning at the local, state, national, and international levels to ensure the timely identification of health hazards associated with emergency responses and implementation of adequate protection measures.
- Use the **Disaster Science Responder Research (DSRR) Program** to identify research needs to protect response and recovery workers while identifying solutions to rapidly support research during emergencies.

What have we accomplished?

- Published **guidance** with the United States Department of Agriculture to protect workers from illnesses and injuries associated with livestock and poultry wastewater and sludge from animal feeding operations during and after floods.
- Published **resources** to help the emergency response community prepare for and respond to a fourth generation agent (nerve agents) incident.
- Supported the NIOSH opioid response by providing technical assistance to first responders, releasing a **training video** to accompany **first responder guidance**,

conducting **health hazard evaluations**, and delivering training to over 400 first responders.

- Participated in CDC's 2018 Pandemic Influenza full-scale exercise where one objective focused on understanding supply and strategies for using respiratory protective devices.
- Published a **manuscript** on modeling radiation exposure of response workers in shelters following a nuclear detonation.
- Completed an **external peer review** of the Emergency Preparedness and Response Program assessing its public health impact. The Program received a score of 10 out of 10.

What's next?

- Collaborate with the Federal Emergency Management Agency (FEMA) to implement the Disaster Related Exposure Assessment and Monitoring (DREAM) course to provide a comprehensive resource for emergency responders at the FEMA Center for Domestic Preparedness.
- Publish educational materials, including videos and infographics, to help protect first responders from exposure to fentanyl.
- Participate in the interagency Crimson Contagion 2019 Pandemic Influenza Exercise series.
- Improve gaps identified in 2018 Anthrax table top exercise to better respond to a wide area release of anthrax by enhancing interagency collaborations.
- Update NIOSH's emergency preparedness and response webpages to make them more user friendly and improve their visibility among workers.
- Initiate development of a tool to rapidly collect hazard surveillance data during hurricanes to target research needs.

At-A-Glance

The Emergency Preparedness and Response Program integrates occupational safety and health into emergency planning and response to protect response and recovery workers. This snapshot shows recent accomplishments and upcoming work.

Interim Guidance for Protecting Workers from Livestock and Poultry Wastewater and Sludge During and After Floods

Interim Guidance for Protecting Workers from Livestock and Poultry Wastewater and Sludge During and After Floods

PURPOSE OF THIS GUIDANCE: To protect workers from illnesses and injuries associated with livestock and poultry wastewater and sludge from animal feeding operations during and after floods.



Infectious Diseases Spread by Swine and Poultry

Examples of diseases that may be spread to workers from contact with swine and poultry and their manure include:

- Swine: brucellosis, erysipelas, leptospirosis, streptococcosis, salmonellosis, campylobacteriosis, cryptosporidiosis, giardiasis, yersiniosis, hepatitis E, listeriosis, pathogenic E. coli, mragravim
- Poultry: erysipelas, salmonellosis, campylobacteriosis, cryptosporidiosis, listeriosis, pathogenic E. coli

Signs and Symptoms

- Workers should watch for signs and symptoms including diarrhea, vomiting, fever, cough, fever with cough or sore throat, rash, dermatitis, wound infections, conjunctivitis (i.e. pink eye), neurological signs, or other indicators of infection.
- Workers with signs or symptoms should report them to their supervisor and seek medical evaluation right away, before your healthcare provider about your workplace exposures.

Immunizations

- Ensure that all employees are up-to-date on tetanus-diphtheria immunization since employees are at risk of soil-contaminated injuries. Current CDC recommendations do not support hepatitis A vaccination for sewage workers or disaster responders. For more information, go to National Disaster and Severe Weather Immunization at <https://www.cdc.gov/disasters/disease/responderimmun.html>.

Overview

Farms, animal production sites, and processing plants contain animal waste. Waste or manure can be located in places such as animal housing, open lots, pastures, manure treated fields, sediment basins, above ground storage structures, underground storage tanks, lagoons, storage ponds, and manure drying or composting sites. Workers may be at risk of exposure to animal diseases that may be passed from animals through contact with workers' broken skin, eyes, nose, mouth, or mucous membranes. Diseases may spread from contact with animals' infected body fluids or tissues and from contaminated water or materials. Manure and wastewater may also contain additional hazardous compounds such as chemicals, hormones, antibiotics, metals, and allergens. In addition, workers may encounter musculoskeletal hazards (e.g., lifting heavy animals and objects), physical hazards (e.g., unstable buildings and structures, sharp objects, heat, noise), chemical hazards (e.g., fuels, fertilizers, pesticides, cleaning agents, hydrogen sulfide) and allergens (e.g., latex and animal saliva, skin, urine).



Centers for Disease Control and Prevention
 National Institute for Occupational Safety and Health



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Timeline of Select EPRO Responses

- 2018**
 - Hurricanes Florence and Michael
 - Opioid Epidemic
 - California Wildfires
- 2017**
 - Hurricanes Harvey, Irma, and Maria
 - Opioid Epidemic
 - Parkersburg, WV Warehouse Fire
- 2016**
 - Zika
 - Flint Water Contamination
 - Radiation Exposure at a Scrap Metal Facility
- 2015**
 - Ebola
 - High Pathogenic Avian Influenza
 - Investigation of *Burkholderia pseudomallei*
- 2014**
 - Ebola
 - Nontransplant Anatomical Donation Center Investigation
 - CDC Laboratory Anthrax Response

To learn more, visit
www.cdc.gov/niosh/programs/epr