

Health Monitoring and Surveillance During Response Operations

Purpose

Response personnel need to be monitored in order to document the condition of their health, injury, and illness status during emergency operations in response to disasters and emergent events.

Monitoring refers to the ongoing and systematic collection, analysis, interpretation, and dissemination of data related to an **individual** incident responder.

Surveillance refers to the ongoing and systematic collection, analysis, interpretation, and dissemination of illness and injury data related to an event's emergency responder **population** as a whole.

Health (Injury and Illness) Monitoring

- Allows for prompt recognition of risks that may be amenable to intervention.
- Gathers information that can be used for understanding the health effects of ongoing or new exposures occurring during emergent events.
- Provides valuable information:
 - For setting up medical surveillance post-deployment.
 - For follow-up of adverse health consequences related to work at an incident.
 - On up-to-date protection against illnesses and injuries.
 - On unsafe conditions or practices possibly indicating a lack of adequate training.

Who to Monitor

- Incident personnel who are deployed to specific areas suspected to be hazardous.
- Personnel who are experiencing similar symptoms.
- Workers in certain occupations or with certain exposures.

Health (Injury and Illness) Surveillance

- Involves the collection of different types of information, including medical, exposure, work history and activities, PPE, and training.
- Provides information useful for measuring the health impact at the population level, determining



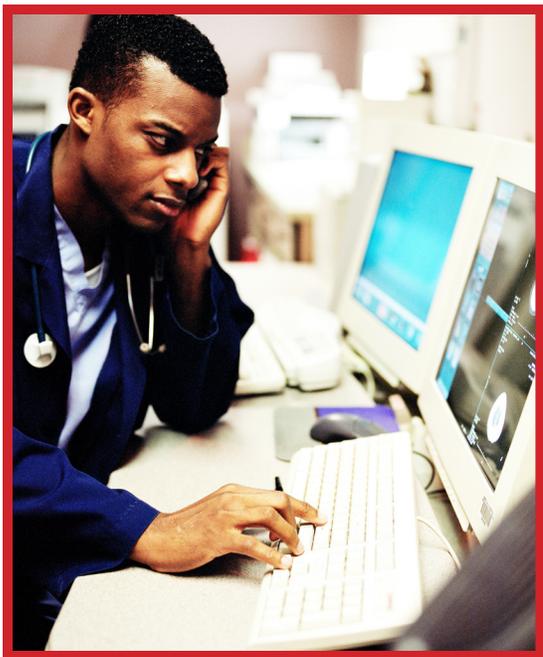
Monitoring and surveillance helps to document and track incident personnel health status during and after an incident

scope of injury and illness, and planning for the next event.

Who to Include in Surveillance

- Incident personnel identified should be based on the type of work being performed, including duration of the task, materials being used, and potential for exposure.

Health Monitoring and Surveillance Data Q&A



Utilizing collected data to prevent or mitigate adverse health outcomes while ensuring responder safety

- **What Are Potential Sources for Data?**
 - Monitoring: Exposure monitoring records, purchasing and production records, training records, health and safety-related policies, and operating procedures.
 - Surveillance: Occupational Safety and Health Administration (OSHA) logs, healthcare facilities.
- **How is Data Acquired?**
 - Electronic transfer systems, records review, surveys.
- **What Type of Worker-Related Data Should Be Obtained?**
 - Monitoring: Personal information, response-related information, medical information, biological monitoring.
 - Surveillance: Denominator, demographics, category of worker, level of training, injury or illness.
- **What Should be Done with Data after Collection?**

Evaluate for quality; code, analyze, and interpret; disseminate in concise and easily understood reports; and communicate to stakeholders as close to real-time as possible.

Emergency Responder Health Monitoring and Surveillance

The Emergency Responder Health Monitoring and Surveillance (ERHMS) system is a health monitoring and surveillance framework that includes recommendations and tools specific to protect emergency responders during the pre-deployment, deployment, and post-deployment phases of a disaster. The intent of ERHMS is to identify exposures and/or signs and symptoms early in the course of an emergency response in order to prevent or mitigate adverse physical and psychological outcomes and ensure workers maintain their ability to respond effectively and are not harmed in the course of this response work. Data will also help to identify during the post-deployment phase which responders would benefit from medical referral and possible enrollment in a long-term health surveillance program. Please refer to Chapter 6 and section 6T for more information on Health Monitoring and Surveillance During Response Operations.

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For more information on ERHMS, please visit:

erhms.nrt.org & www.cdc.gov/niosh/topics/erhms