Surveillance of Workers
Responding Under the National Response Framework

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Overview

- Lessons from Recent Events
- Applying those Lessons to the Federal Workforce
- Principles to Carry Forward
Workers in Disasters

- Traditional Groups
  - First responders
  - Health care workers
  - Skilled support

- Traditional Approach to Workers
  - Training dependent on nature of the worker, nature of the hazard and workplace (from traditional workplace safety and health)

- New Approach
  - Analogous to the “all-hazards” model, an “all workers” model?
  - Recognition that disasters, especially large-scale, differ from traditional workplaces
Lessons From 9/11/01 Related to Training

- Cross-functional Incident Command System (ICS) training and practical exercises are needed
- Increase coordination between federal agencies related to training, applicable safety and health standards and enforcement
- Post-event operations often involve workers in multiple roles (first responder, skilled support, law enforcement)
Other Lessons From 9/11/01

- Critical Incident Stress Debriefing
- Role of OSH enforcement and sampling – still necessary
- Surveillance needs to be considered before the fact
- Better to think about training before the disaster
Pre-Event Training – All Workers
- Hazard/threat recognition
- Use of emergency/communications systems
- Understanding the ICS
- Understanding specific functional role and roles of others
- Evacuation
- Use of personal protective equipment (PPE)

Additional Pre-Event Training for Selected Workers
- HAZWOPER*

New Internal and External Threats

Incident Command System (ICS)

Communication System

Basic Health and Safety Training
- Personal Protective Equipment
- Hazard Communication
- Egress and Evacuation
- HAZWOPER*

Post-Event Training*
- Critical incident debriefing
- Site-specific hazards
- Site-specific safety and health requirements
- Site specific command and communications
- HAZWOPER*

New Generic Training Components

Mitchell et al. (2004)
Medical Surveillance for Disaster Response Workers

- 2005 New Jersey/Hopkins Conference
- Goal: develop guidelines for medical/psychological surveillance and environmental exposure monitoring, for workers involved in incident response under the National Response Plan (NRP)
National Response Framework

- Effective March 22, 2008
- New Worker Safety and Health Support Annex
- DOL/OSHA coordinating agency
  - Pre-Incident Coordination through Worker Safety and Health Coordination Committee
  - Incident Activities:
    - Needs assessment
    - Site-specific health and safety plan
    - Worker safety and health assessment
    - PPE
    - Data management
    - Training and communication
    - Health and medical surveillance
  - Post-Incident “lessons learned”
Purpose and Value of Surveillance

- Detect evidence of exposure
- Detect early evidence of abnormality
- Provide information or reassurance
- Gather information about situation or event
  - Worker protection
  - Research?
    - Ethics of informed consent
HAZWOPER requires…
  – the employer to identify specific site hazards \([1910.120(c)]\); or to identify, to the extent possible, all hazardous substances or conditions present - \([1910.120(q)(3)(ii)]\)

Respiratory Protection requires…
  – the employer to identify and evaluate the respiratory hazards in the workplace – \([1910.134(c)]\)

Bloodborne Pathogens requires…
  – the employer to determine who has occupational exposure to blood or OPIM – \([1910.1030(d)(2)]\)

Expanded Health Standards –
  – examples include Lead, Asbestos, Cadmium, Formaldehyde, Benzene
Impact of Exposure Assessment on Medical Surveillance

Exposure assessment results help determine what medical surveillance requirements apply.

- For workers exposed to regulated chemicals above the action level or permissible exposure limit, the exposure assessment can be used as a trigger for complying with the medical surveillance requirements of a specific OSHA standard.
Mental Health: Lessons Learned from Previous Disasters

- “Normal” response to stressful, disastrous situations
- Rapid recognition and response to abnormal responders
- Challenge in getting people who have sx to seek assistance
- Similar results from civilian, military disasters
- Military has considerable experience
Model of Integrated Behavioral Health Surveillance

- Resistance, Resilience, Recovery Model
- Pre-Deployment
  - Integrate mental health screen with physical health screen (part of “clearance” process) – requires tailoring, training, thoughtful integration
- During Deployment
  - Supervisor observation, safety officer assessment
- Post-Deployment
  - Short-term, medium-term access to mental health services (particular challenge for private sector workers)
Other Considerations in Surveillance

- Special populations
  - Non-English speaking populations
  - Contractors/self-employed
  - Volunteers

- Risk communication
  - How to report results of surveillance, especially given unique aspects of exposure

- Ethical issue
  - Reporting all results to monitored workers
  - Participation

- Fiscal issues
  - Stafford Act
Final Recommendations I

- **Purpose of medical surveillance:** identify exposures and/or early symptoms of disease, and to link those findings to individual care and preventive interventions.

- **Goals of surveillance are:**
  - (1) Prevent and mitigate adverse physical and mental health outcomes
  - (2) to assess and maintain worker functionality (ability to attend and respond effectively to personal and professional responsibilities)

- Participation in surveillance should be confidential and voluntary, to the extent feasible.

- In the context of the National Response Plan/Framework, surveillance should be an ongoing process, occurring all the way from pre-deployment, to the field, to the post-deployment period and beyond.
Final Recommendations 2

At the time the NRP/NRF is activated, there should be a centralized mechanism to capture data related to individual and collective exposure in order to facilitate individual treatment, preventive interventions and future long term public health needs.
Final Recommendations 3

A critical need for effective surveillance is the creation of a registry of workers at the site. Once a disaster site is identified and the Incident Command System is established, access to the site should be controlled and entering workers registered. Onsite surveillance should then be initiated.
Mental health surveillance should be integrated into the overall medical care and surveillance. The goals of the mental health surveillance response are: (1) to assess and maintain worker functionality; and (2) to prevent and mitigate adverse mental health outcomes. This should be an ongoing process, occurring all the way from pre-deployment, to the field, to the post-deployment period and beyond.
Final Recommendations 5

- Exposure assessment strategies should be developed and implemented under the ICS as a way to protect workers on the job, and should also be *integrated with medical/psychological surveillance* to help guide interventions.
Final Recommendations 6

Each individual worker should receive detailed and interpreted biomedical and exposure data. All de-identified surveillance and exposure data should be publicly available, provided to all workers, and interpreted appropriately.
Risk communication needs to be an integral part of the entire worker protection program, including surveillance.
Implications for a Research Agenda

- Role of new biological markers of exposure, dose, early biological effects
- Role of “Smarter” Information Technology
  - Integration of surveillance, health, exposure, job assignment data
- Effectiveness of integrated behavioral-physical health models of care/surveillance
- Health Services Research – providing similar care to public, private sector workers, non-organized workers, vulnerable populations
References


