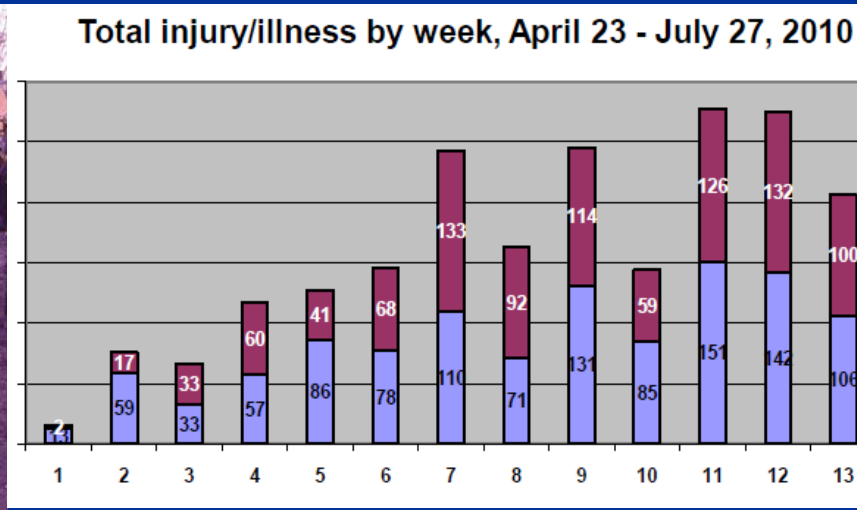


Emergency Responder Health Monitoring and Surveillance “ERHMS”



John Halpin, M.D., MPH
Medical Officer

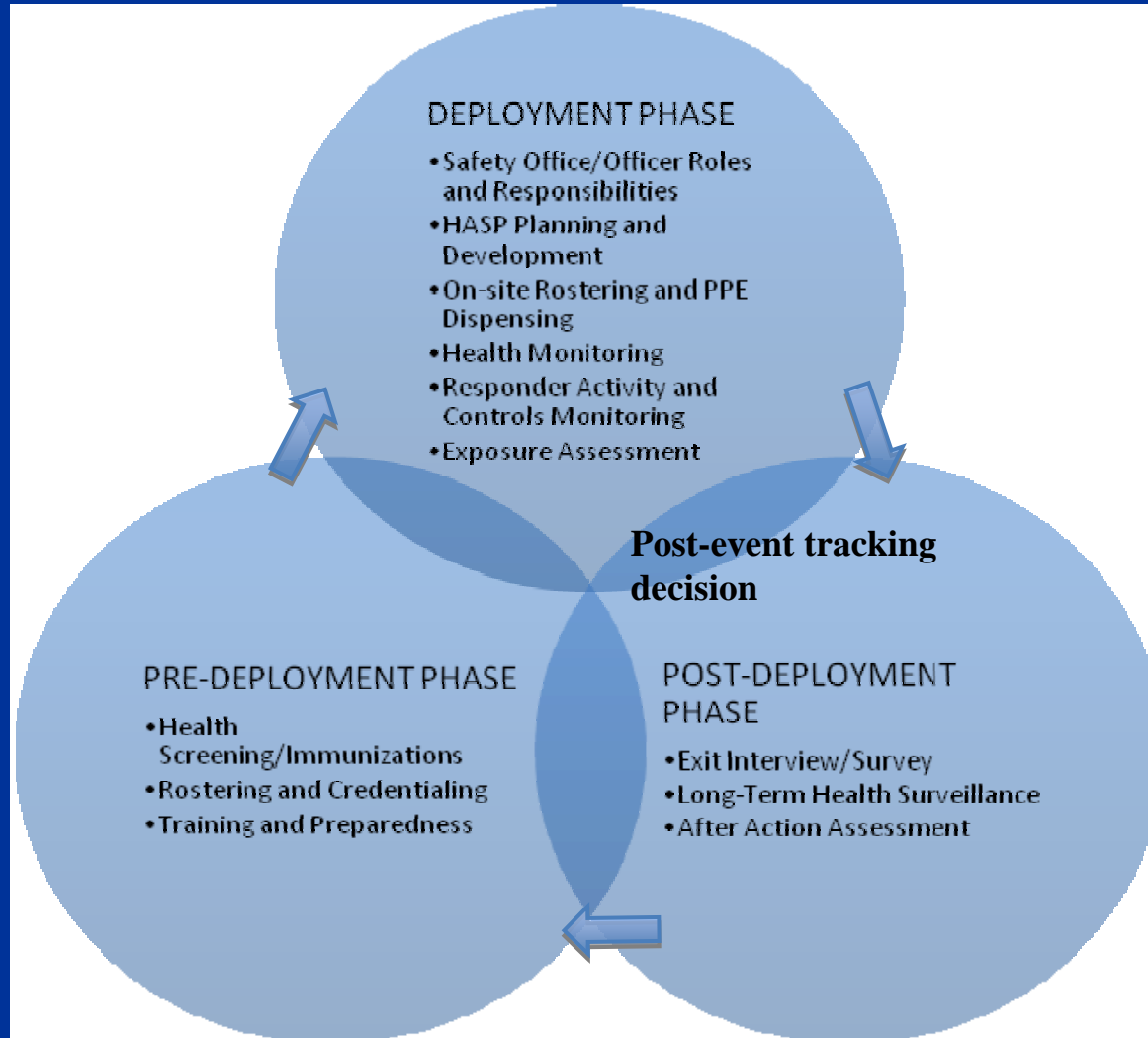
**Emergency Preparedness and Response Office
National Institute for Occupational Safety and Health**



Goals of ERHMS

- Addresses long-term health effects of responders
- Covers systematically all phases (pre-deployment, during deployment, and post-deployment)
- Ensure only qualified, trained, and properly equipped personnel are selected for deployment
- Ensure all receive sufficient health monitoring
- Determine whether long-term monitoring is needed

Overview of ERHMS





ERHMS Workgroup members

- NIOSH (coordinating)
- National Response Team
- American Red Cross
- Army
- Center to Protect Workers' Rights
- Coast Guard
- Dept of Homeland Security
- Env Protection Agency
- Fed Emerg Mngt Agency
- HHS, Asst Sec for Prep and Response
- InterAgency Board
- International Assoc of Firefighters
- Natl Inst for Env Health Sciences (NIEHS)
- Occupational Safety and Health Administration
- US Army Corps of Engineers
- State Health Depts: OR, CA

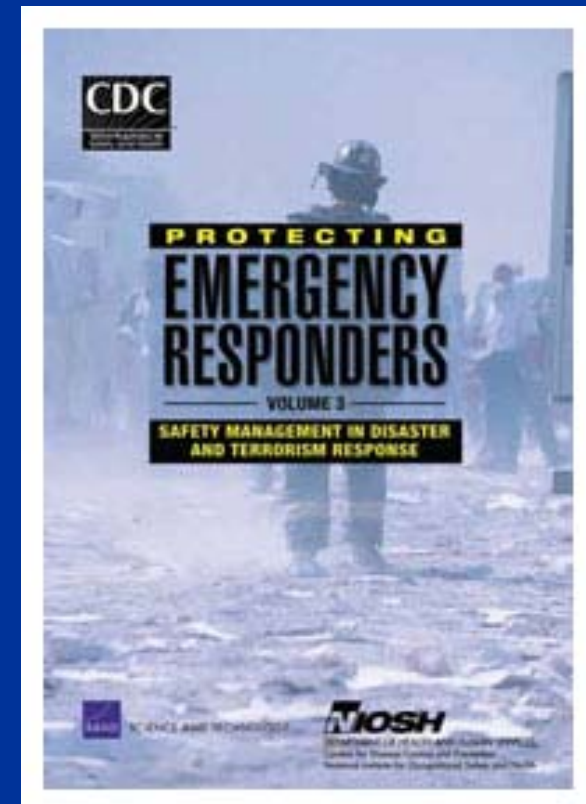
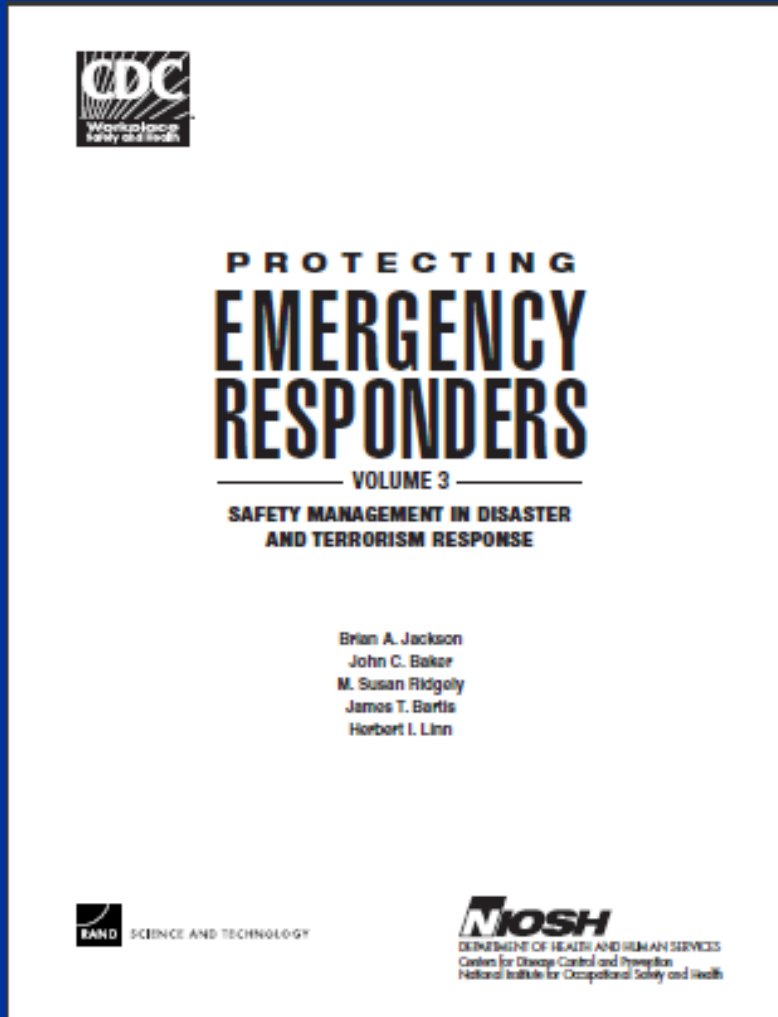


End Product

- **NRT technical assistance document (TAD)**
 - Interagency
 - Scalable: Address national, state, and local-sized events
 - Guiding principles for each activity
 - Minimum information (data set) to accomplish each activity
 - Identify existing documents and tools (surveys, checklists, databases, software programs)
- **Develop documents and tools if needed**
- **Disseminate information through multiple communication methods**



RAND document





Recommendation 6.8—Improve Long-Term Surveillance of Responders’ Health Following Major Response Operations

The unusual hazard exposures and working conditions involved in major disaster response operations create the potential for significant, long-term health consequences of disaster response. Although there are long-term care and surveillance systems for World Trade Center responders,²⁷ such ad hoc efforts do not address the broader need for follow-up care and surveillance for responders to major disasters.

To effectively characterize the consequences to responders’ long-term health, it is clear that an accurate registry of involved responders, preferably compiled as the response is under way, is a prerequisite to any eventual surveillance or treatment effort. Workshop participants delineated a number of points of leverage during a response and in the post-incident period. As described above, perimeter control can provide the accountability information needed to determine who might have been exposed to what at the disaster site. Without information on who was involved, there is no guide for who should be screened for which potential long-term effects [Study Workshop]. Understanding where people were and what they were doing during the event is key for post-event intervention, and it is very difficult to reconstruct after the fact if the data were not originally collected.²⁸ Tracking of post-disaster health problems is also complicated by lack of baseline data and accountability information for responder activities during the response.



GAO Report on WTC Health Monitoring

February 28, 2006

SEPTEMBER 11

Monitoring of World Trade Center Health Effects Has Progressed, but Program for Federal Responders Lags Behind



Highlights of [GAO-06-481T](#), a testimony before the subcommittee on National Security, Emerging Threats, and International Relations, Committee on Government Reform, House of Representatives

Why GAO Did This Study

After the 2001 attack on the World Trade Center (WTC), nearly 3,000 people died and an estimated 250,000 to 400,000 people in the vicinity were affected. An estimated 40,000 people who responded to the disaster—including New York City Fire Department (FDNY) personnel and other government and private-sector workers and volunteers—were exposed to physical and mental health hazards. Concerns remain about the long-term health effects of the attack and about the nation's capacity to plan for and respond to health effects resulting from future disasters.

Several federally funded programs have monitored the physical and

What GAO Found

Three federally funded monitoring programs implemented by state and local governments or private organizations after the WTC attack, with total funding of about \$104 million, have provided initial medical examinations—and in some cases follow-up examinations—to thousands of affected responders to screen for health problems. For example, the FDNY medical monitoring program completed initial screening for over 15,000 firefighters and emergency medical service personnel, and the worker and volunteer program screened over 14,000 other responders. The New York State responder screening program screened about 1,700 state responders before ending its examinations in 2003. These monitoring programs and the WTC Health Registry, with total federal funding of \$23 million, have collected information that program officials believe researchers could use to help better understand the health consequences of the attack and improve treatment. Program officials expressed concern, however, that current time frames for federal funding arrangements may be too short to allow for identification of all future health effects. CDC recently received a \$75 million appropriation to fund health screening, long-term monitoring, and treatment for WTC responders and is deciding how to allocate these funds.



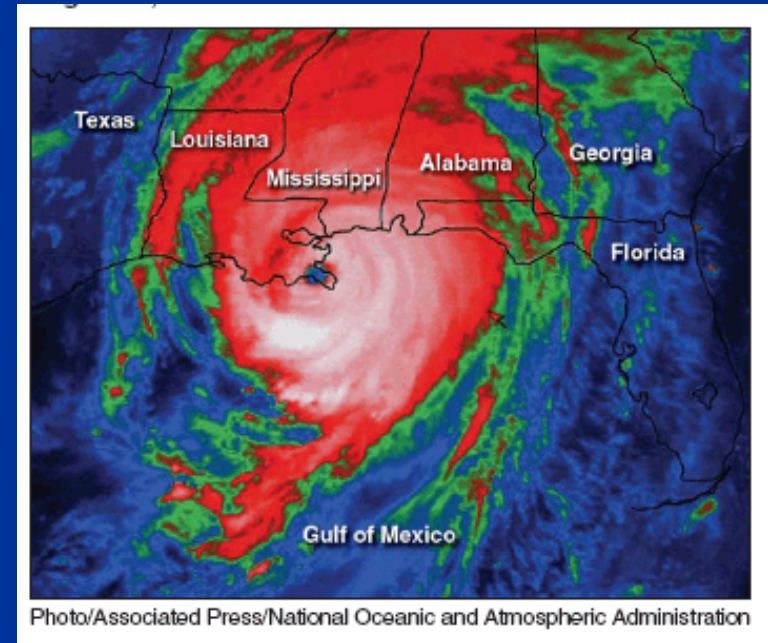
GAO Report on WTC Health Monitoring

- Officials involved in WTC health monitoring programs cited lessons from their experiences that could help others who may be responsible for designing and implementing health monitoring efforts that follow other disasters, such as Hurricane Katrina.
- These include the need to:
 - Quickly identify and contact people affected by a disaster;
 - Monitor for mental health effects, as well as physical injuries and illnesses; and
 - Anticipate when designing disaster-related monitoring efforts that there will likely be many people who require referrals for follow-up care and that handling the referral process may require substantial effort.



Pre-Deployment

- Rostering and credentialing
- Health screening
- Health and safety training





Deepwater Horizon Response Pre-Placement Evaluation

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Workplace Safety & Health Topics



NIOSH Home

Workplace Safety and Health Topics

Deepwater Horizon Response

Interim Guidance for Protecting Deepwater Horizon Response Workers and Volunteers

Medical Pre-Placement Evaluation

Medical Pre-Placement Evaluation Indicators for Health Professionals

Chemical Exposure Assessment

Tips for Deepwater Horizon Response Workers

Respiratory Protection Recommendations

Summary of Potential

[NIOSH](#) > [Workplace Safety and Health Topics](#) > [Deepwater Horizon Response](#)

NIOSH Interim Information

07/21/2010

DEEPWATER HORIZON RESPONSE

Medical Pre-Placement Evaluation For Workers Engaged in the Deepwater Horizon Response

The objective of these recommendations is to provide guidance for health professionals who provide primary care to workers or volunteers who may be involved with the Deepwater Horizon response. The recommendations describe a plan for pre-placement evaluation to gather medical information on workers prior to beginning oil spill response work. The pre-placement evaluation is not a formal fitness for duty examination, but is designed to 1) provide health professionals with guidance on the important elements of such a pre-placement evaluation; 2) help health professionals identify individuals with health concerns that need to be addressed, identify individuals with specific susceptibilities whose activities may need to be restricted or modified, and identify medication, immunization or training needs; and 3) provide valuable information to the worker on his/her health status and potential demands of the work they will encounter. Additionally, this evaluation will provide some documentation of the worker's health status, and may provide an opportunity for the worker to be directed to further medical evaluation.

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During Deployment

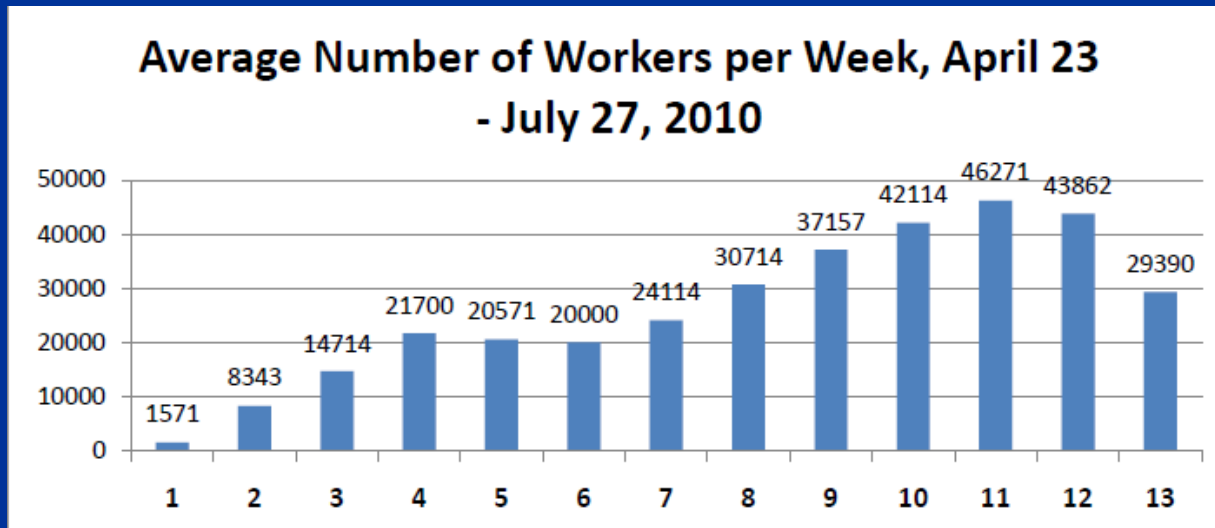
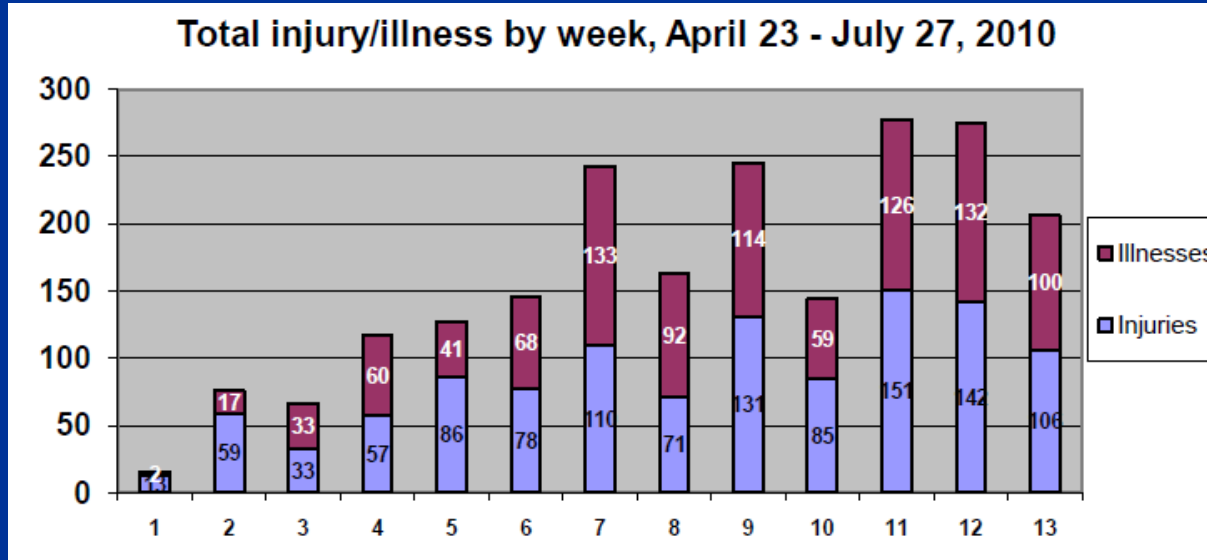
- On-site rostering
- On-site safety training
- Health and Safety Plan (HASP)
- Document worker activities and use of personal protective equipment
- Exposure assessment
- Responder injury and illness surveillance (physical and mental health)

Roster efforts at Staging Areas

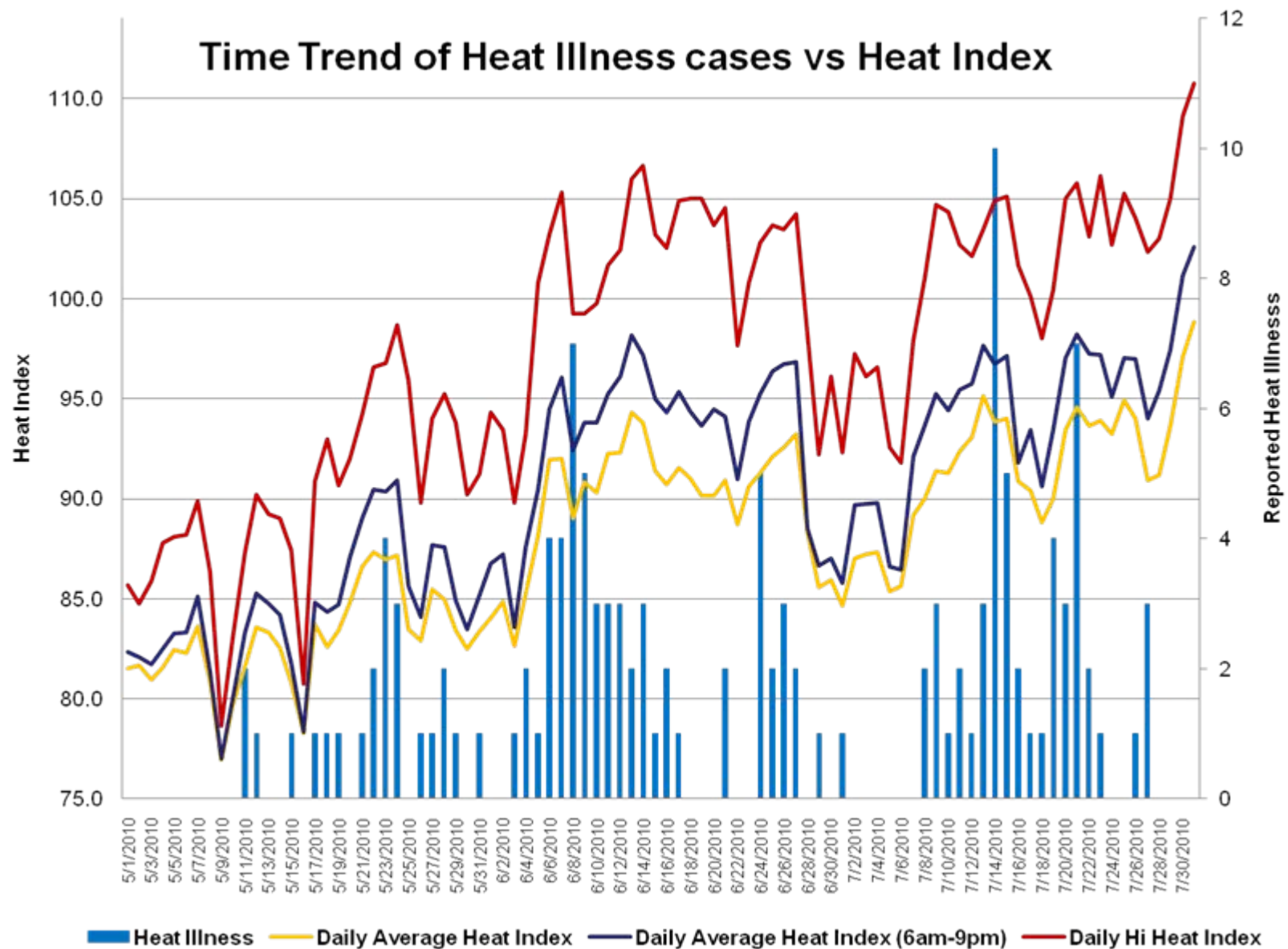




NIOSH Report of UC/BP Injury and Illness Data



NIOSH Report of UC/BP Injury and Illness Data





Health Hazard Evaluations (HHE)

On Shore Evaluations:

- Beach clean-Up
- Wildlife rehabilitation
- Equipment decontamination and waste stream management

Off Shore Evaluations:

- Source Control
- In-situ burns
- Booming, skimming, dispersant operations



HHE staff at
source control



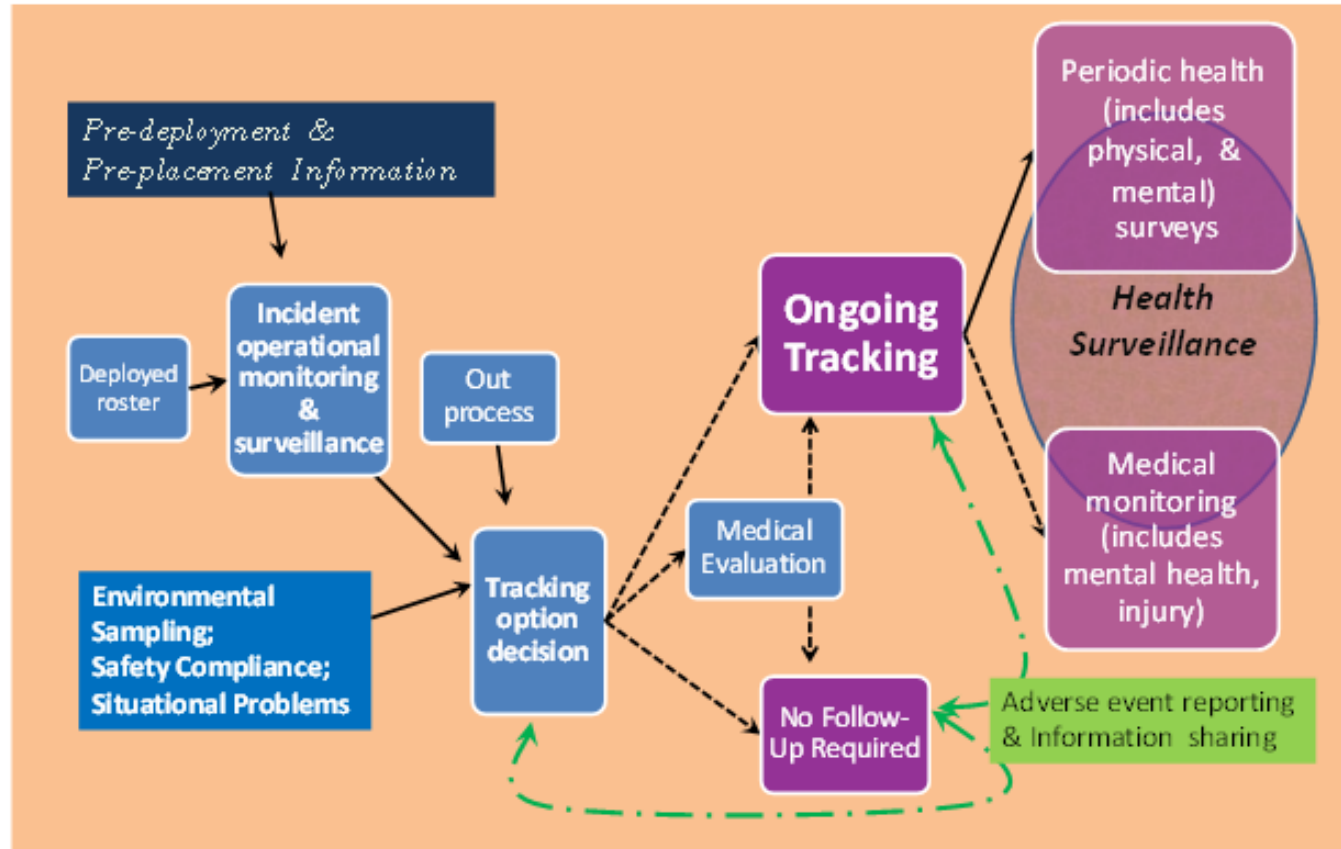
Post-Deployment

- Exit interviews/surveys
- Analyzing exposure data in conjunction with self-reported and healthcare provider-generated information
- Determine the need for long-term monitoring





EHRMS Health Tracking Decision



Key: dark blue box = pre-deployment information; sky blue box = during deployment information; purple box = post-demobilization activities; green box and dashed line = communication pathways for those responders not being actively followed; solid black line = information about all responders; dashed black line = information about a subset of responders.



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Questions?