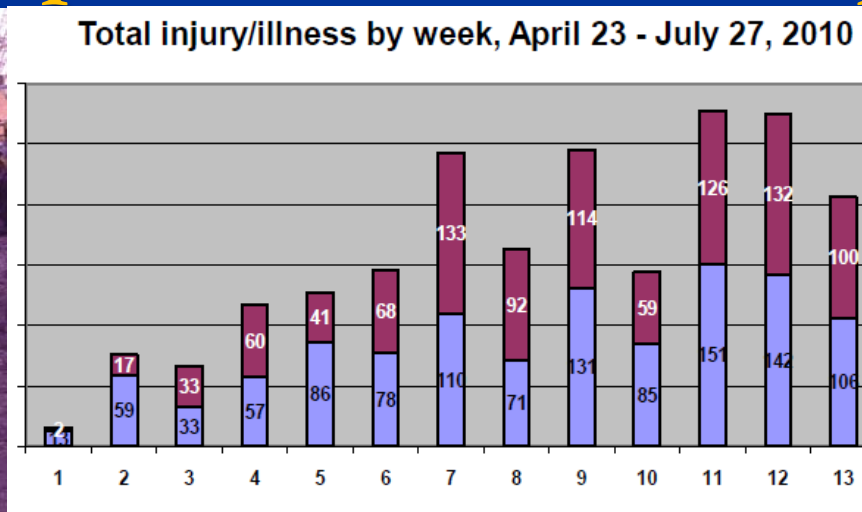


Emergency Responder Health Monitoring and Surveillance (ERHMS) and its Implementation in the Deepwater Horizon Response



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National Institute for Occupational Safety and Health



ERHMS Overview

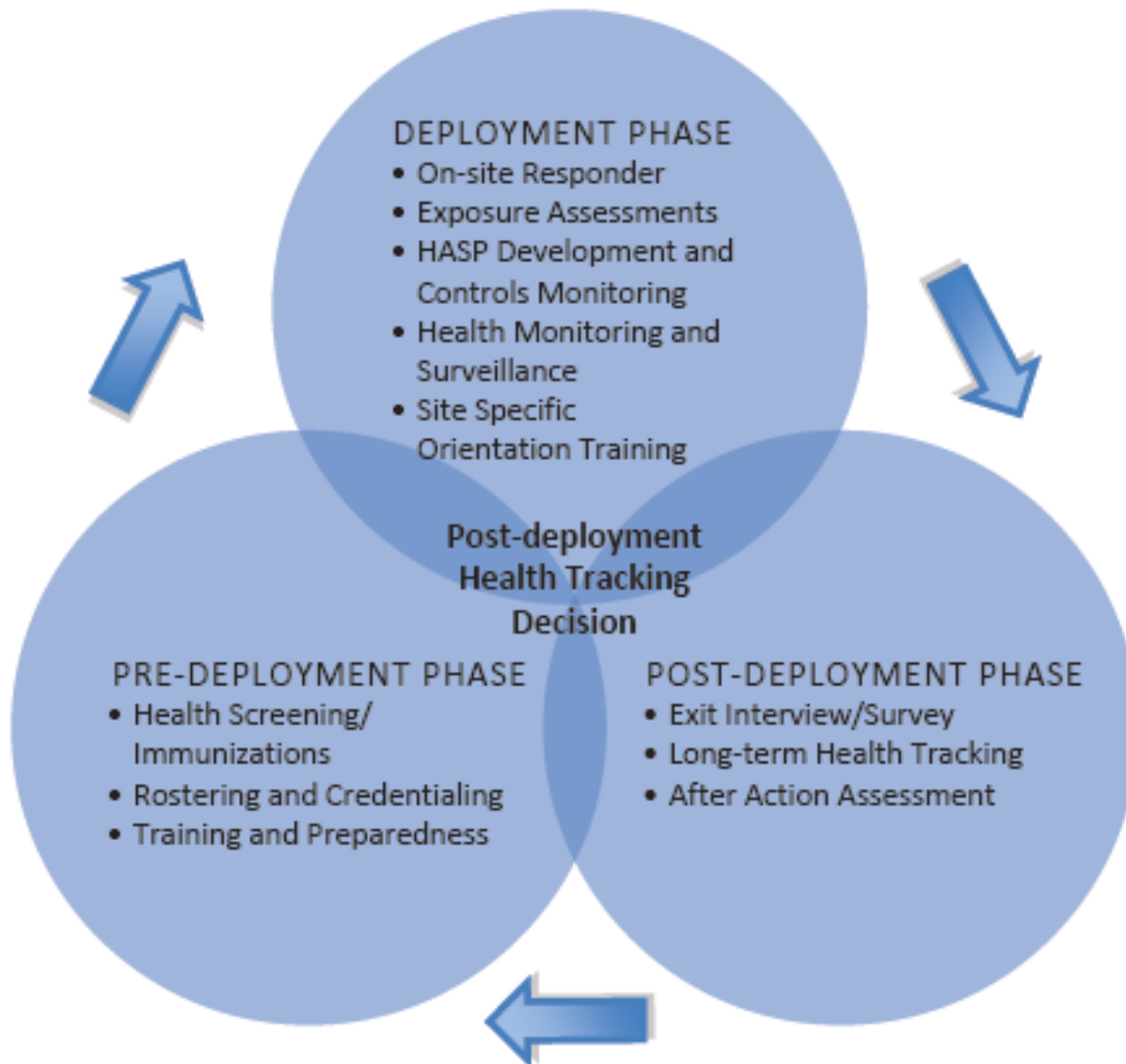
- Cover systematically all phases (pre-deployment, during deployment, and post-deployment)
- Ensure only qualified, trained, and properly equipped personnel (employees, contractors, and volunteers) are selected for deployment
- Ensure all receive sufficient health and exposure monitoring
- Determine whether long-term monitoring or surveillance is needed
- Address long-term health effects of responders



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

All Phases





End Product

- **National Response Team Technical Assistance Document**
 - 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)
- Identify gaps
- Develop documents and tools if needed
- Disseminate information through multiple communication methods



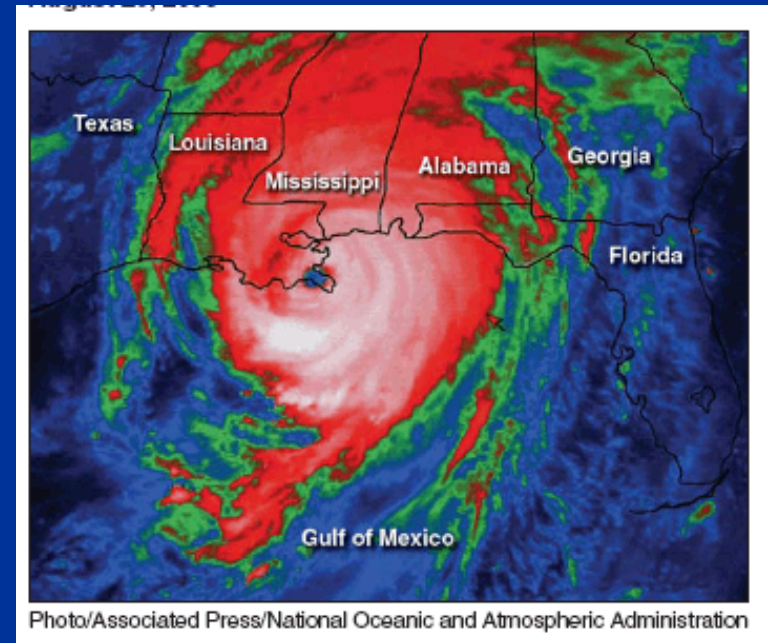
Public Health Preparedness Capabilities:

Responder Safety and Health

- **Function 4: Monitor responder safety and health actions**
 - **Task 1: Conduct or participate in surveillance of public health incident responders before, during and after an incident**
 - **Task 2: Coordinate with healthcare partners to facilitate access to health services for responders**
 - **Task 3: Provide guidance to partner organizations for monitoring of incident-related health outcomes**
 - **Task 4: Utilize data to provide recommendations or considerations for change**
 - **Task 5: Support the Public Information Officer to implement risk-communication strategies**

Pre-Deployment

- Rostering and credentialing
- Providing health screening
- Ensuring adequate health and safety training





Deepwater Horizon Response Pre-Placement Evaluation

CDC Home



Centers for Disease Control and Prevention
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NIOSH
All CDC Topics

Choose a topic above

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A-Z Index for All CDC Topics

Workplace Safety & Health Topics



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
- Develop a Health and Safety Plan (HASP)
- Document worker activities and use of personal protective equipment
- Exposure assessment at the site
- Link exposure information to responder activities
- Responder injury and illness monitoring and surveillance (physical and mental health)
- Communications
- Data management



Deepwater Horizon Roster Efforts



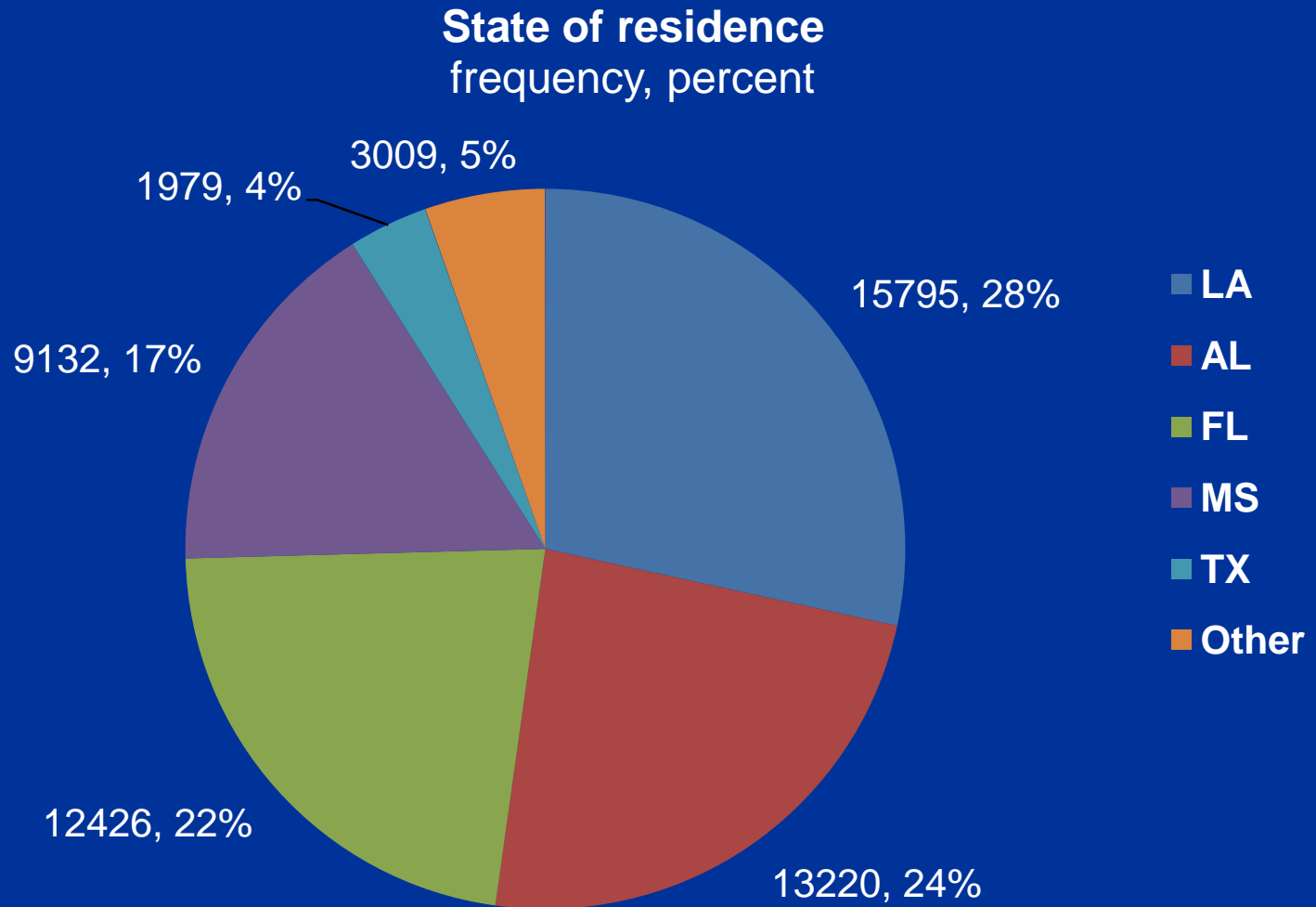
**55,388 workers
rostered
(as of 10/15/10)**



Date		Gulf Coast Oil Spill Initial Survey					
Name (Last, First, MI)		Date of birth		Last four digits of social sec.		Gender	Race/Ethnicity
<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> Asian <input type="checkbox"/> Other
Cell phone (with area code)	Street address		City	State	ZIP	Email address	
<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Name and number of contact who will know where you are in 6 months				Employer or volunteer organization on site			
<input type="text"/>				<input type="text"/>			
What has been your USUAL Job prior to the Spill?		On the Oil Spill, are you a:					
<input type="text"/>		<input type="checkbox"/> BP employee <input type="checkbox"/> Contractor <input type="checkbox"/> Government worker <input type="checkbox"/> Volunteer <input type="checkbox"/> Don't Know					
How many years have you been working at your USUAL job?		Would you be willing to be contacted about participating in a possible post-event survey?					
<input type="text"/>		<input type="checkbox"/> Yes <input type="checkbox"/> No					
Response Work (please be as specific as possible)							
What will be your job or responsibilities?		What training have you received? (Check all that apply)			Are you expecting to use respiratory protection?		
<input type="text"/>		<input type="checkbox"/> Module 1: BP HSE Basic Orientation <input type="checkbox"/> Module 2: Contractor Expectations <input type="checkbox"/> Module 3: Post-Emergency Spilled Oil Cleanup <input type="checkbox"/> First Responder Awareness <input type="checkbox"/> Annual refresher <input type="checkbox"/> First Responder Operations (8 hr) <input type="checkbox"/> Annual refresher <input type="checkbox"/> Hazardous Materials Technician (24 hr) <input type="checkbox"/> Annual refresher <input type="checkbox"/> HAZWOPER (24 hr) <input type="checkbox"/> Annual refresher <input type="checkbox"/> HAZWOPER (40 hr+) <input type="checkbox"/> Annual refresher <input type="checkbox"/> Other training, describe:			<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know		
Will your job tasks involve the potential of exposure to oil or oily substances?					Have you been fit-tested for a respirator in the last year?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know					<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know		
If yes, please describe the tasks:					Do you smoke?		
<input type="text"/>					<input type="checkbox"/> Yes, number of cigarettes per day: <input type="text"/> <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer		
What are your expected deployment location(s)?					CDC recommends that adults be vaccinated for tetanus every 10 years. Have you had a tetanus vaccine within the past 10 years?		
<input type="text"/>					<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know		
How long are you planning on working on the oil spill?		Are you expecting to use personal protective equipment to protect your skin?			Do you have other issues or concerns?		
<input type="checkbox"/> less than 1 week to one week <input type="checkbox"/> 1 week to 2 weeks <input type="checkbox"/> more than 2 weeks to one month <input type="checkbox"/> More than one month <input type="checkbox"/> As long as the work is available <input type="checkbox"/> I don't know		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know			<input type="text"/>		
		Are you expecting to use personal protective equipment to protect your eyes (goggles or eyewear)?					
		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know					
I have read and understand the Data Use and Disclosure sheet about who is collecting this information and how it will be used and that my participation is voluntary.							
Signature _____							



Number and Distribution of Responders by State of Residence





Top 10 Usual Occupations

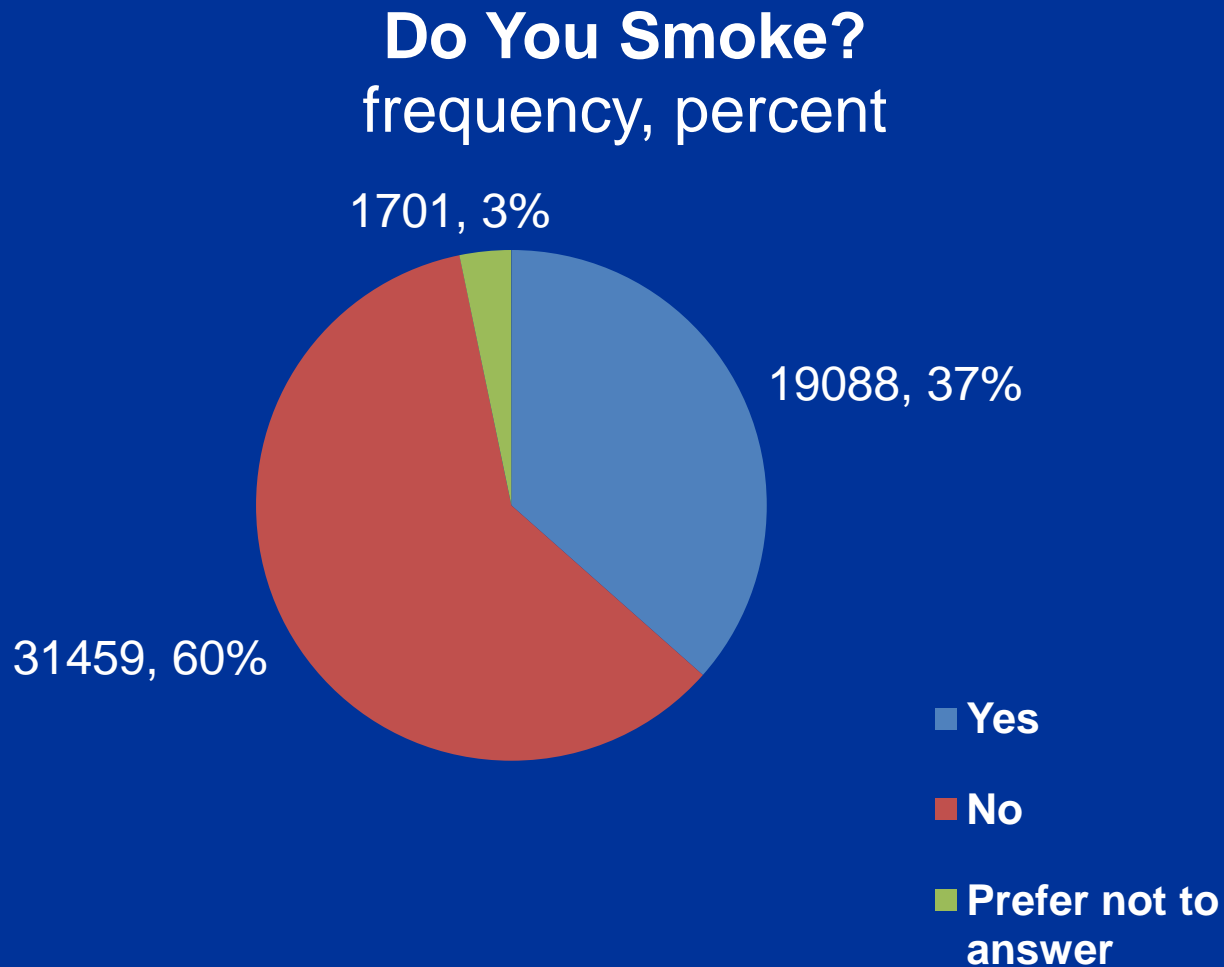
<i>What was your usual job prior to the spill?</i>	<i>Freq.</i>	<i>%</i>
<i>INDUSTRIAL/TRADES</i>	6949	13.80
<i>MANUAL/WAGE LABOR</i>	6739	13.39
<i>PROFESSIONAL/SCIENTIFIC/OFFICE</i>	5002	9.94
<i>FISHING/SHRIMPING</i>	2699	5.36
<i>MARINE</i>	2678	5.32
<i>OIL/WELL/CLEAN UP</i>	2547	5.06
<i>UNEMPLOYED</i>	2117	4.21
<i>FOOD/FOOD SERVICE</i>	1981	3.94
<i>RETAIL</i>	1532	3.04
<i>DRIVER/DELIVERY</i>	1205	2.39

Number and Distribution of Responders by Highest Level of Hazardous Materials Training Completed

<i>Highest Level of Hazardous Materials Training Completed</i>	<i>Freq.</i>	<i>%</i>	<i>Cum. Freq.</i>	<i>Cum. %</i>
<i>None</i>	32242	58.03	32242	58.03
<i>First Responder Awareness</i>	835	1.50	33077	59.53
<i>8 Hour First Responder Operations</i>	811	1.46	33888	60.99
<i>24 Hour HAZWOPER or HazMat Technician</i>	3857	6.94	37745	67.93
<i>40 Hour HAZWOPER</i>	17816	32.07	55561	100.00



Number and Distribution of Responders by Smoking Status



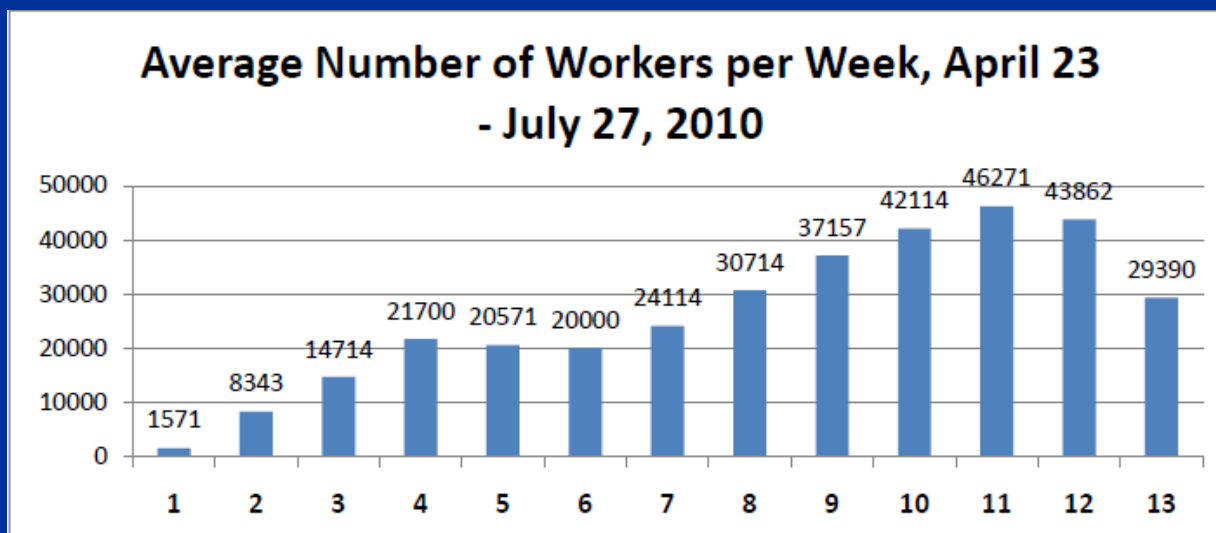
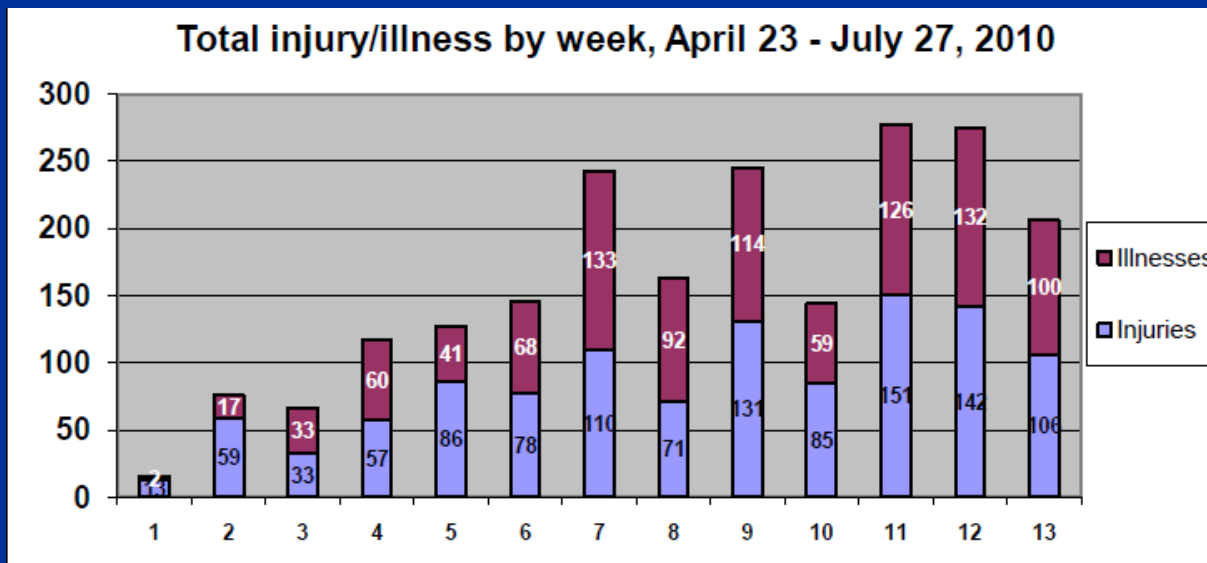


Deepwater Horizon Roster Report

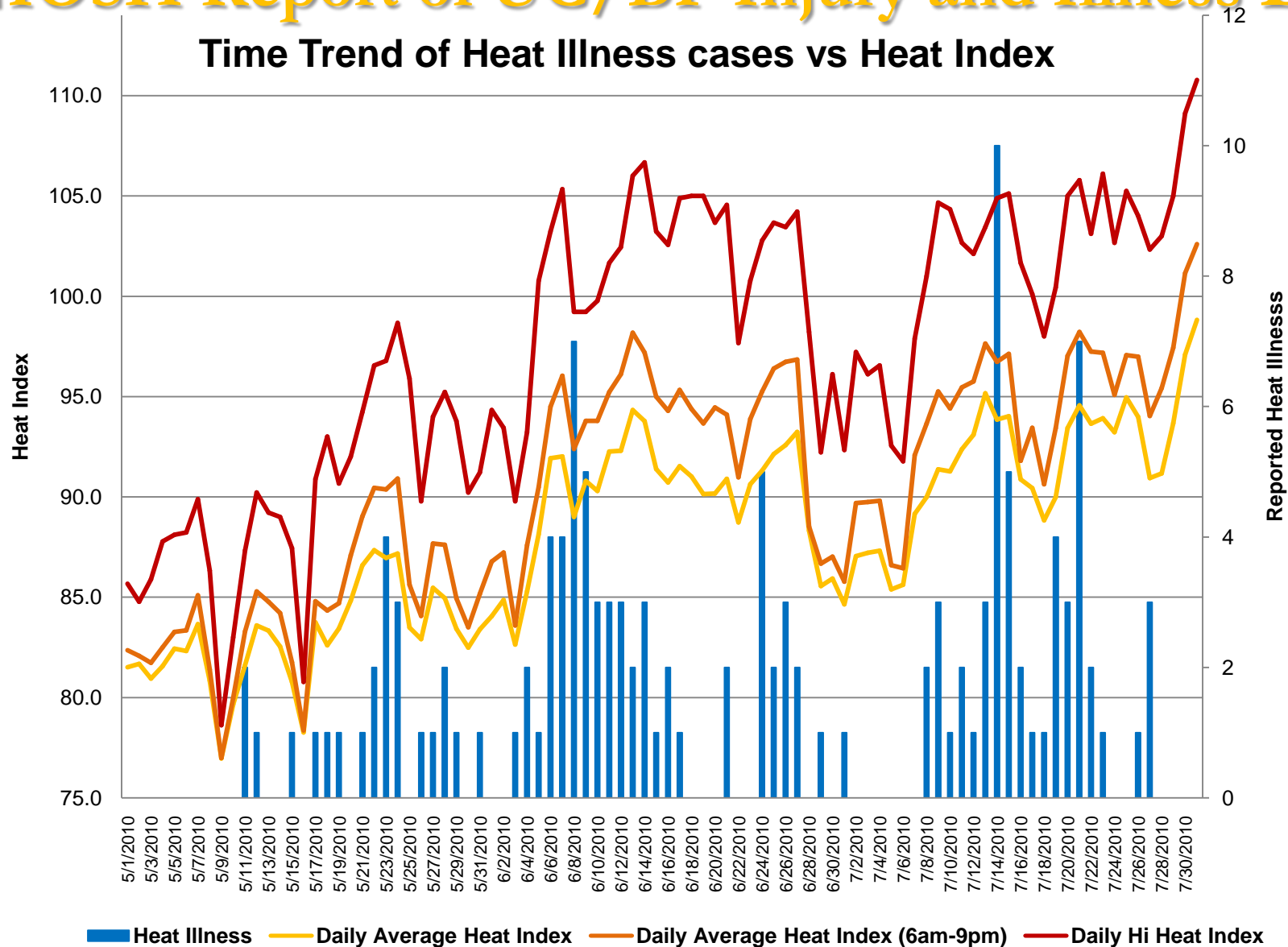
- Describes 55,000 population of Deepwater Horizon workers who were rostered
- Will be posted on NIOSH website at:
 - <http://www.cdc.gov/niosh/topics/oilspillresponse/workerroster.html>



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 on
source control vessels

Six Work Task Categories

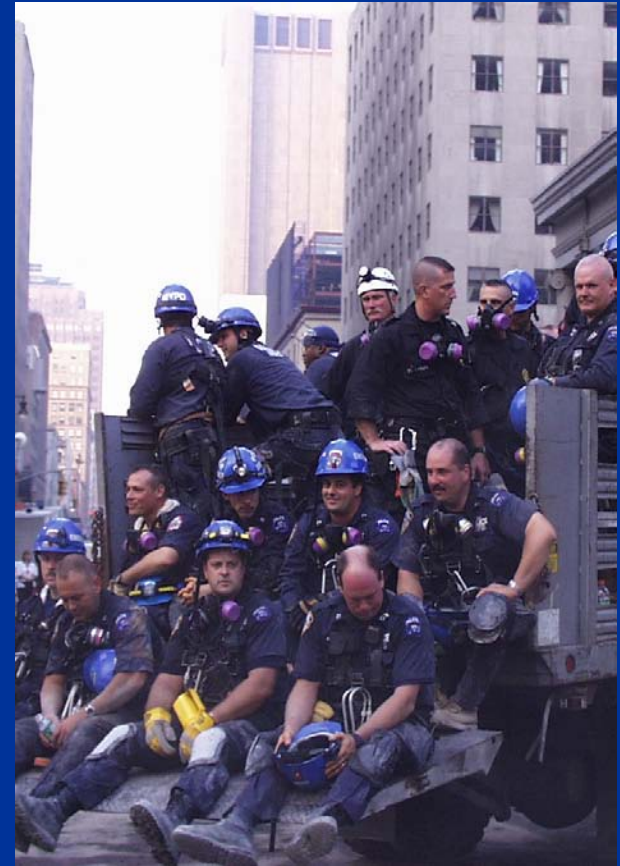


Occupational Hazards in the Gulf Response

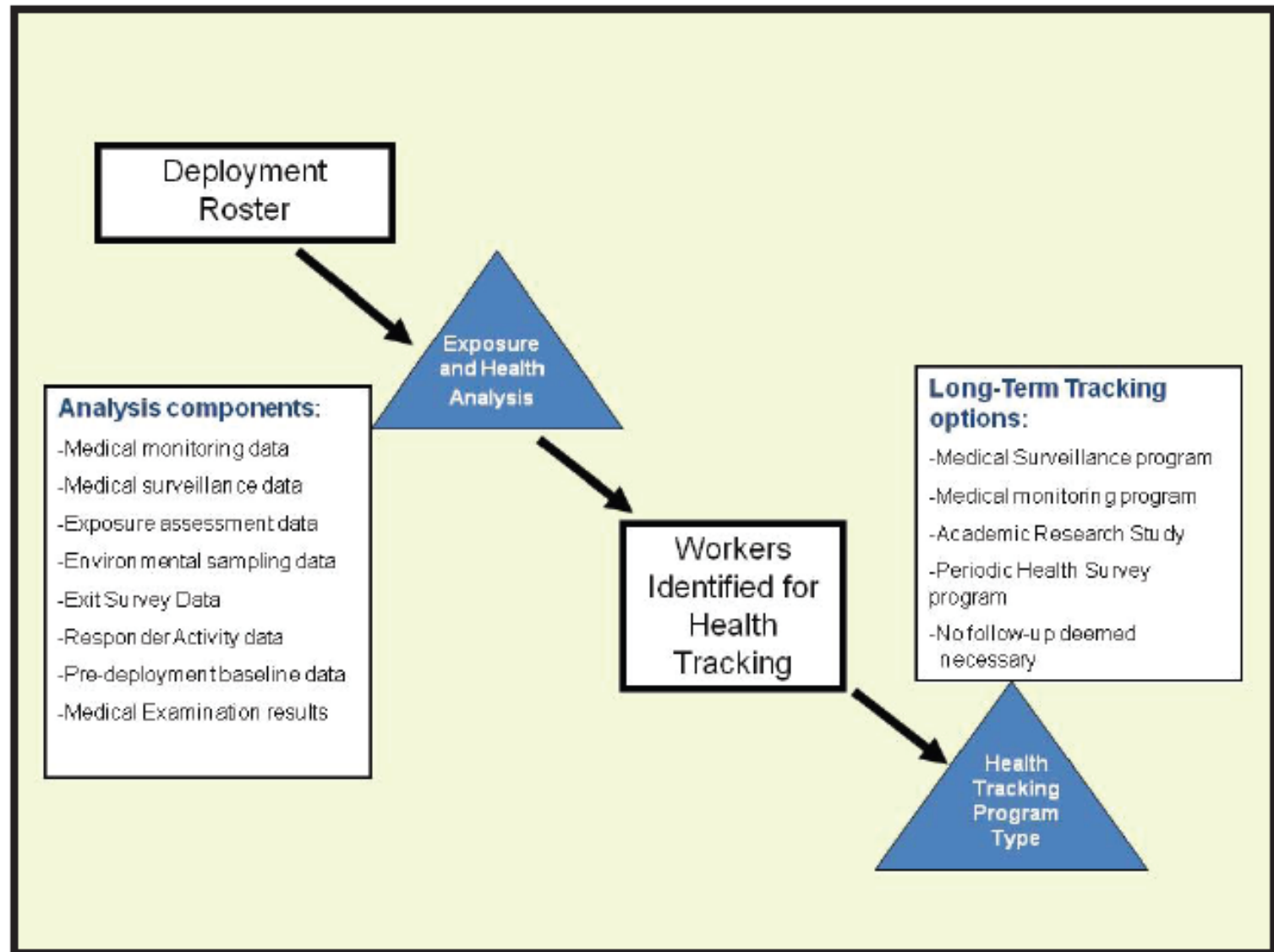


Post-Deployment

- Outprocessing assessments
- Analyze exposure data in conjunction with self-reported and healthcare provider-generated information
- Determine the need for long-term monitoring
- After action assessments



EHRMS Tracking



Key: blue diamond = decision point; black box = information about responders



Anthrax Exercise Methods

- Entry survey
- Exit survey
- Surveys modified from Gulf oil spill
- Interviews conducted using handheld PDAs





How You Can Partner with ERHMS

- Review draft guidance and tools documents
 - www.cdc.gov/niosh/docket/review/docket223
- Implement components in each of your agencies
 - Write into contracts
- Outreach plan
 - Conferences
 - Training modules



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

Emergency Response Resources:
<http://www.cdc.gov/niosh/topics/emres/>

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.