NIOSH Report of BP Injury and Illness Data (April 23 – June 20, 2010)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

7/13/2010

Table of Contents

NIOSH Report of Deepwater Horizon Response/BP Illness and Injury Data (April 23 – June 20, 2010)

Background

This report is designed to provide a basic overview of illness and injuries recorded by BP safety officials that occurred to workers involved in the Deepwater Horizon response. Injuries and illnesses were coded and categorized utilizing the Bureau of Labor Statistics Occupational Injury and Illness Classification System (OIICS). It will be updated on a regular basis as new data becomes available. The data used to produce this report was provided to NIOSH by BP safety officials, who are sharing their health and safety incidents database with CDC-NIOSH. The database is comprised of the information recorded by BP safety officials on an incident form which is filled out for any incident which led to a work-related illness or injury. It includes incidents which occurred to BP employees, BP contracted workers, federal/state/local responders, and volunteers. There may be some local (parish) workers involved in response efforts who do not fall under the supervision of the Unified Area Command, and thus would not be included in this database. The incident forms are filled out by BP safety officials, as opposed to healthcare personnel, and do not contain strict medical diagnoses of injury or illness. This method of employer-generated data collection is standard occupational safety and health practice. BP is sharing the information for each incident, but the data it provides to NIOSH does not include the names of the BP employees, contract workers and volunteers. In addition, since the data is being collected by BP, NIOSH cannot independently verify the accuracy and completeness of the data.

NIOSH is producing this report of illness and injuries to promote public health through enhanced awareness of the risks associated with response work in the Gulf. The objective of this report is to provide actionable information to those in a position to reduce the risk of future injuries and illnesses among cleanup workers, such as BP, OSHA, state and local health authorities and others. By pointing to patterns of injury and/or illness, this report may assist interested parties in identifying targets for training, intervention, and other prevention activities. NIOSH welcomes your feedback on the utility of this report and suggestions for future reports. Additional information about specific occupational risks will be reported by NIOSH through health hazard evaluations which will be conducted independently by NIOSH personnel in the field.

Note that portions of this same database are also reported on OSHA's website at http://www.osha.gov/oilspills/DeepwaterDataJuly1.pdf. This website provides the line listing data for the OSHA reportable injuries.

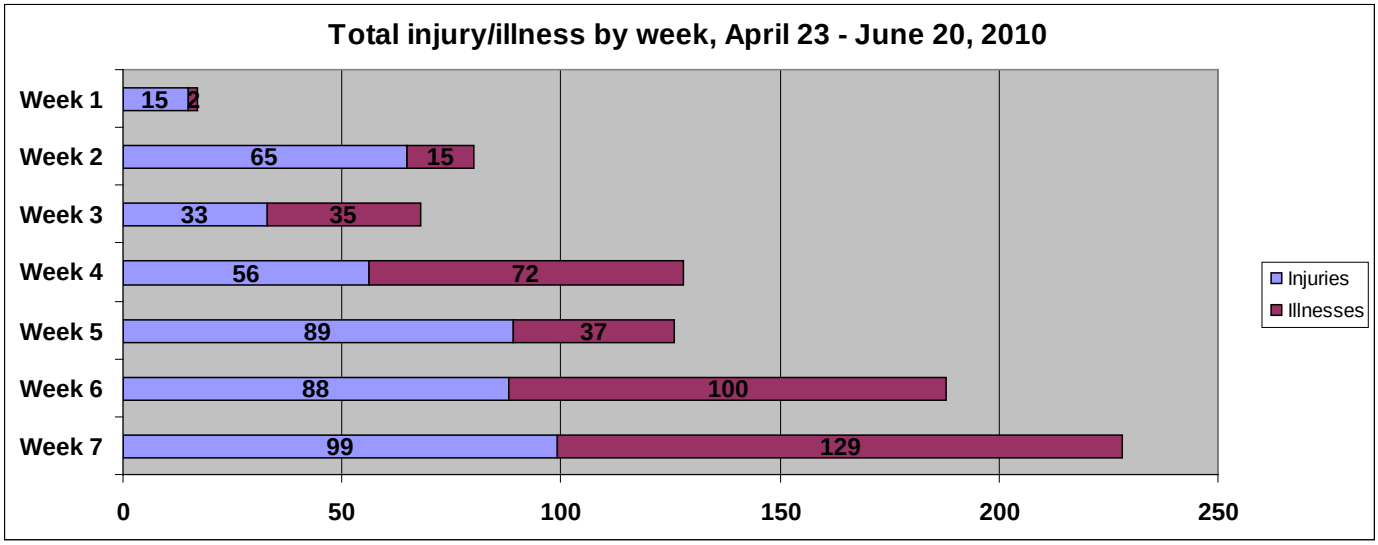
Table 1

Summary of injuries and illnesses, April 23 – June 20, 2010					
Characteristic	**Injuries**		**Illnesses**		**Total**
	Number	**%**	**Number**	**%**	
Total[a]	**491**	50.8	**461**	47.7	**967**
First Aid cases[b]	**334**	48.7	**339**	49.4	**686**
OSHA-recordable cases[c]	**155**	56.0	**120**	43.3	**277**
Missed or Restricted Duty cases	**11**	68.8	**5**	31.2	**16**
Command Center[d]					
Houma, Louisiana	**195**	49.9	**200**	50.1	**399**
Mobile, Alabama	**183**	49.5	**181**	48.9	**370**
Other	**113**	57.1	**77**	38.9	**198**
Worker Type					
Contractor	**461**	50.4	**438**	47.9	**914**
BP employee	**2**	40.0	**3**	60.0	**5**
Federal/State/Local	**16**	70.6	**7**	30.4	**23**
Volunteer	**1**	50.0	**1**	50.0	**2**
Unspecified	**11**	47.8	**12**	52.2	**23**

Notes:

- **a.** The incident type (injury vs. illness) was not able to be determined for 15 cases.
- **b.** Case severity information is missing for two injuries and two illnesses.
- **c.** OSHA-recordable cases are defined as those cases which led to missed day of work, restricted duty, or required medical treatment beyond first aid.
- **d.** Command Center refers to the BP/UAC safety commands which geographically divide responsibility and oversight over Safety concerns. The Houma, LA command site is responsible for safety issues occurring in the state of LA, while the Mobile, AL command is responsible for safety issues occurring in MS, AL, FL, and TX. Command site is unspecified or unknown for 188 cases. 4 cases are listed as Houston and 6 as New Orleans.

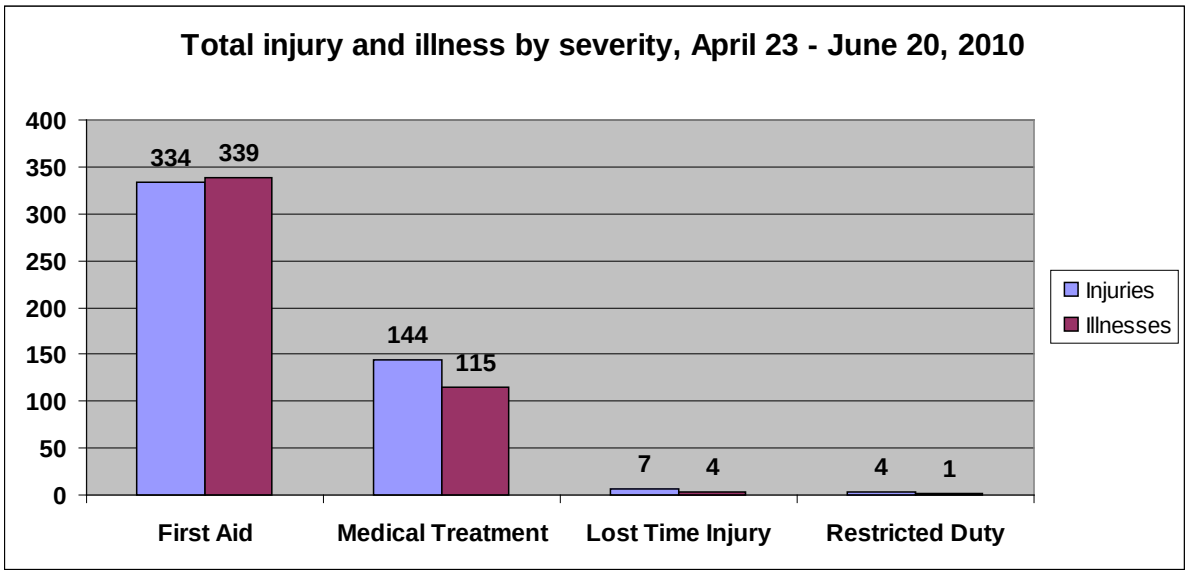
Graph 1



Notes:

- Week 1 is defined as Monday April 26 -Sunday May 2, 2010. Each subsequent week begins on the following Monday.
- Total cases for this graph: 834. This excludes 117 cases from week 8, which was not included on the graph because of incomplete data (<7 days). A week over week graph that includes numbers from week 8 will be presented in the next Injury and Illness report.
- Increases in weekly totals may be partially attributable to more complete reporting as well as to increasing numbers of workers involved in the response. Denominator data is not currently available for this report.

Graph 2



Notes:

- Medical Treatment refers to any case requiring treatment beyond first aid, but which did not result in restricted duty or lost time.
- Nineteen cases had insufficient information to include in this graph.

Injury and illness frequencies are presented below stratified by location of their occurrence: onshore vs. offshore. This distinction may ultimately be useful in identifying important exposures that vary by location, or identifying specific worker groups at risk. Injury and illness frequencies may vary by onshore/offshore location for a variety of reasons, including the nature of tasks performed on the shore vs. on the water; the number of workers employed in each setting; varying degrees of exposure to crude and weathered oil and dispersants, and workers' access to medical facilities or medical care when they feel ill or sustain an injury.

Table 2

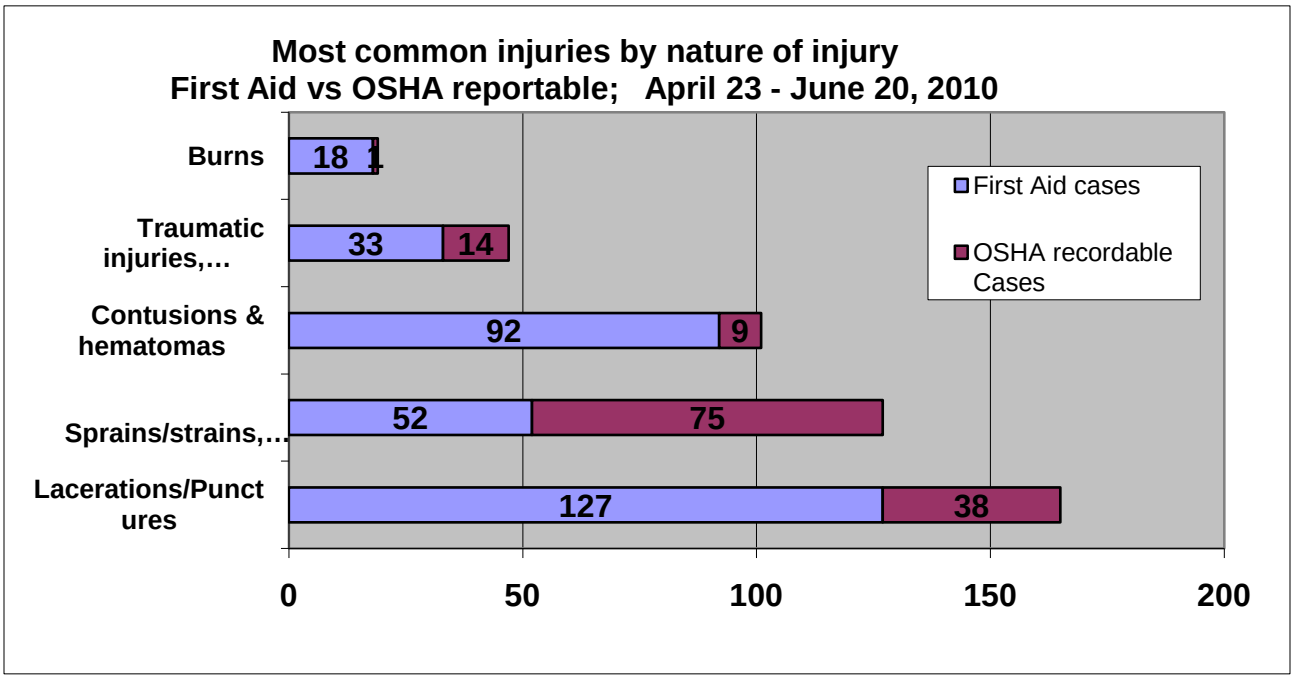
Breakdown of injuries and illnesses by location, April 23 – June 20, 2010					
Characteristic	**Onshore**		**Offshore**		**Total**
	Number	%	Number	%	
Total[a]	695	71.9	271	29.0	**967**
Injuries[b]					
First Aid Cases	224	67.1	110	32.9	**334**
OSHA-recordable cases	110	71.0	44	23.4	**155**
Illnesses[c]					
First Aid cases	260	76.9	79	23.4	**339**
OSHA-recordable cases	88	72.7	32	26.4	**120**
Command Center[d]					
Houma	339	85.0	59	14.8	**399**
Mobile	334	90.3	36	9.7	**370**
Unspecified/Other	22	11.1	176	88.9	**198**
Selected Injuries/Illnesses					
Heat Stress	72	69.9	31	30.1	**103**
Multiple Symptoms	73	83.0	15	17.1	**88**
Lacerations/Punctures	114	69.1	52	30.9	**165**
Sprains/Strains & Muscle Pain	102	80.3	24	18.9	**127**

Notes:

- **a.** One case did not contain sufficient information to define its location onshore vs. offshore.
- **b.** Case severity information missing for two injuries
- **c.** Case severity information missing for two illnesses

d. Command Center refers to the BP/UAC safety commands which geographically divide responsibility and oversight over Safety concerns. The Houma, LA command site is responsible for safety issues occurring in the state of LA, while the Mobile, AL command is responsible for safety issues occurring in MS, AL, FL, and TX.

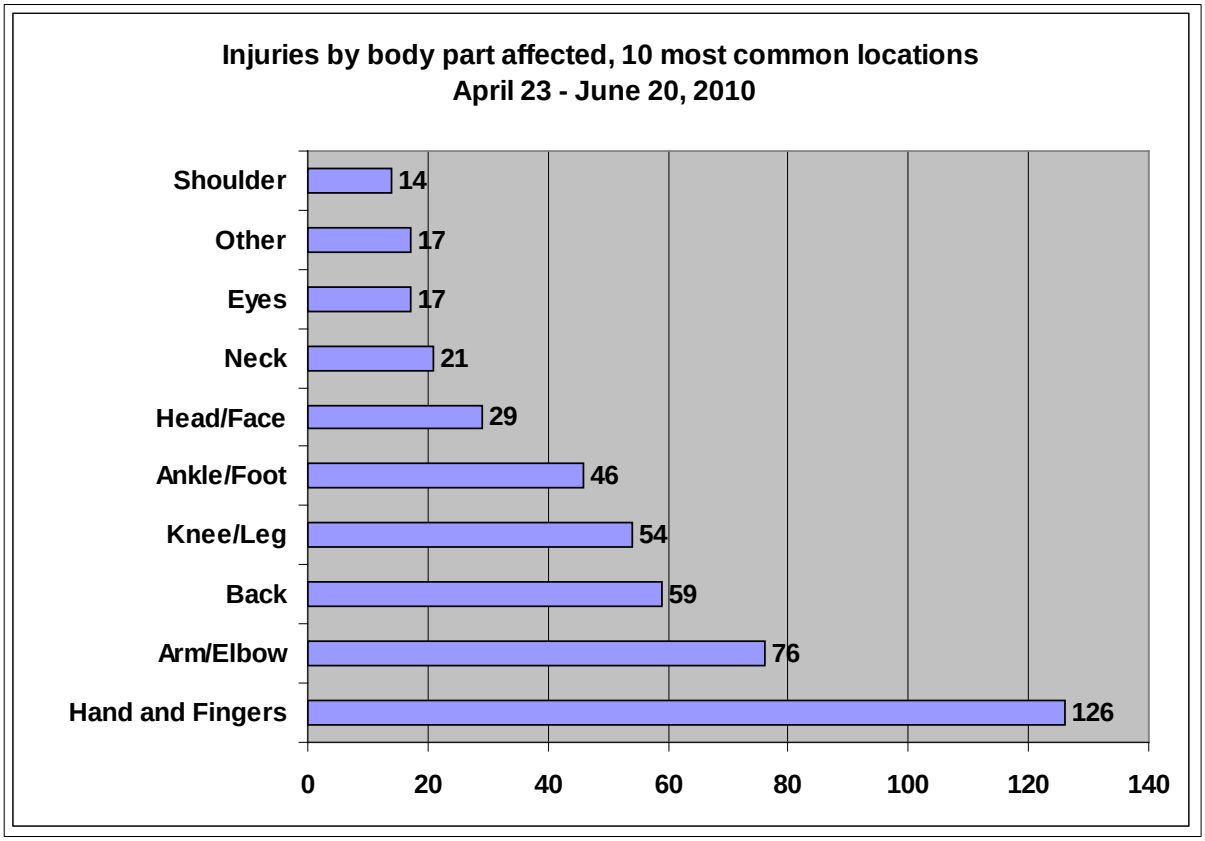
Graph 3



Notes:

- OSHA-recordable cases are defined as those cases which led to missed day of work, restricted duty, or required medical treatment beyond first aid.
- "Traumatic injuries, unspecified" are defined as those cases in which the data was not sufficient to provide a more specific description of the nature of the traumatic injury. For example, the case description could read, "worker slipped and injured leg" but it is not clear what type of injury resulted, e.g. sprain/strain, contusion, or laceration.
- Lacerations/Punctures consisted of 78 lacerations, 10 puncture wounds, and 73 bite/stings.

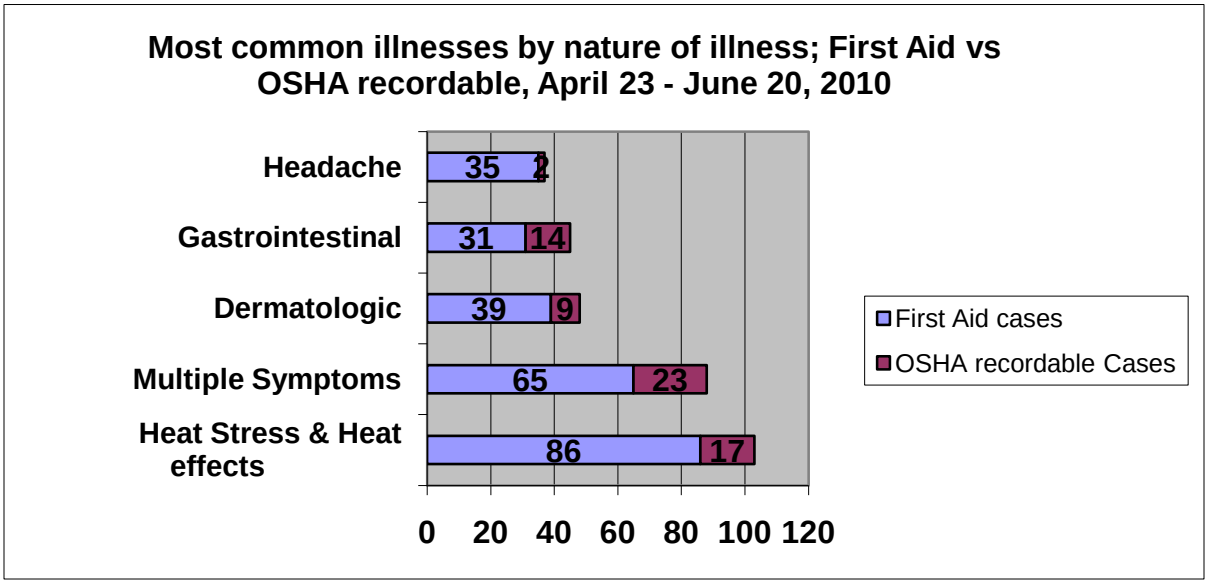
Graph 4



Notes:

- Head/Face category excludes only the eyes.
- 'Other' is defined as those cases in which body part could not be determined from the narrative.

Graph 5



Notes:

- Multiple symptoms refers to symptoms occurring in more than one organ system for a given case which were not attributed to a single, specific underlying cause (such as heat stress).
- OSHA-recordable cases are defined as those cases which led to missed day of work, restricted duty, or required medical treatment beyond first aid.

Observations

Illnesses

Heat Stress

- 72/103 Heat stress injuries occurred "Onshore." From job title information provided, 58 of 72 onshore heat stress cases appear to have been reported by laborers, beach cleanup workers, boom decontamination workers and heavy equipment operators.
- Of the 103 Heat-related cases, 28 of these required either IV fluid administration or were transported to a hospital for further care, or both. Of these, only 1 was listed as resulting in restricted duty or a missed day of work.

Multiple symptoms

- Multiple symptoms refer to symptoms occurring in more than one organ system for a given case which were not attributed to a single, specific underlying cause. Examples from the database include cases of:
    1. nausea, vomiting, headache, and dizziness
    2. headache, blurred vision, and dizziness
- The majority of all "multiple symptoms" cases occurred onshore (83%), as opposed to offshore where exposure to oils vapors and dispersants is considered greater or more likely. Of the 23 OSHA-recordable cases involving multiple symptoms, 20 occurred onshore. Many of these had symptoms consistent with heat stress, but were not identifiable as such based on the information provided in the database. Of the 3 which occurred offshore, none reported any possible association with oil or dispersant or any other type of chemical exposure.
- Of the 65 multiple symptoms cases listed as treated by First Aid, 53 occurred onshore. Of the 12 which occurred offshore, 7 were from a cluster of fishermen whose cases are part of a NIOSH HHE investigation. Of the remaining 5 cases, none reported the possibility of oil/dispersant exposure or any other chemical exposures.

Dermatologic

29 cases of skin rash were recorded between April 23 and June 20, 2010; 12 of those were attributed to the use of sunscreen wipes, which appeared to cause an allergic/irritant skin reaction in these cases. Five were attributed to heat rash.

Respiratory

Nine cases were recorded which could be considered primarily respiratory in nature. 7/9 required medical treatment. 6/9 occurred onshore (4/6 in beach activities). Only 1 of these

cases was reported to be related to a chemical exposure, which was neither oil nor dispersant.

Chemical Exposures

Carbon monoxide poisoning

On June 14, 2010, four related cases of carbon monoxide poisoning were recorded. Four contract workers whose job titles were recorded as "field techs" were hospitalized after reporting fatigue, drowsiness and fainting. The incident reportedly occurred offshore on a vessel. All four workers were treated at the hospital and released the same day. BP Safety reports that they are investigating this incident.

Crude/weathered oil/dispersants

- Oil and/or dispersants were explicitly mentioned as a contributing factor in a total of 6 cases.
- 4 cases involved dermal exposure to the face or arm. Other symptoms reported in association to oil or dispersant include nausea, however extremely small numbers and limited information in the incident reports prohibit further analysis of those cases.

Injuries

- 48% of sprain, strain, and muscle pain injuries were related to motor vehicle accidents, of which 92% were OSHA-reportable.
- 13 cases of cuts/lacerations were due to the use of knives, including pocket knives. The most common activity reported was cutting rope.
- 81 lacerations and 80 contusions were recorded as due to contact with objects or equipment. This included being struck by or struck against an object, caught in or caught by an object or equipment, or crushed or compressed against/by an object or piece of equipment, etc.