Public Health Surveillance
2010 Deepwater Horizon Response

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Initial Response

• April 30: Contacted affected states to offer technical assistance
  – States expressed interest in enhanced surveillance
• Developed and disseminated draft enhanced surveillance plan and tool to the states
  – One state adapted CDC surveillance form
  – Three states implemented enhanced surveillance using existing systems
  – Health effects under surveillance: respiratory, cardiovascular, ocular, dermal, GI symptoms
CDC Surveillance Plan

• Coordinate state-based surveillance
  – collect daily state surveillance data
  – provide timely reports back to states

• Conduct national surveillance
  – BioSense
  – National Poison Data System

• Provide epidemiologic and surveillance technical support when requested

• Publish summarized data on CDC’s website
### National Surveillance (7/31/10)

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<tr>
<th>Surveillance System</th>
<th>Description</th>
<th>Reporting Periods</th>
<th>Findings</th>
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</table>
| **BioSense**                 | - Monitoring 21 ED chief complaint and final diagnosis syndromes in 86 facilities in affected states (VA, DoD, civilian)  
- Pilot to assess 5 Mental Health syndromes in BioSense 
- Providing state-specific reports to each state. | Recently changed from daily to weekly | No anomalies detected since 5/17/10  
Rash anomaly in FL DoD facility, unrelated to DWH event |
| **National Poison Data System (NPDS)** | - Tracking calls for 60 PCC in affected states related to:  
  1) oil spill exposure **AND**  
  2) seafood contamination and dispersant exposure related to oil spill  
- PCC calls come from:  
  - private citizens  
  - paramedics  
  - healthcare providers etc  
- Providing state-specific call reports to AL, MS. | Recently changed from daily to weekly | - 1028 total exposures calls:  
- 504 minor health effects  
- 121 moderate health effects  
- 4 major health effects  
- remaining calls - no or un-related health effects  
- Common reported health effects:  
  - headache (n=247)  
  - nausea (n=165)  
  - cough/choke (n=114)  
- Since June 2\textsuperscript{nd}, few calls regarding potential exposure to contaminated seafood (n=51) and dispersants (n=66) |
Calls to Poison Control Centers (NPDS)

Total Oil Spill Calls to the Gulf States
April 30 to July 31, 2010

* Gulf Oil Spill call surveillance started on April 30, so the first bar represents data only for April 30 to May 1.
# State-based Surveillance (7/31/10)

<table>
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<tr>
<th>State</th>
<th>Surveillance Activity</th>
<th>Description</th>
<th>Reporting</th>
<th>Summary of Findings</th>
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</table>
| LA    | Line list and questionnaire, EARS (syndromic surveillance), PCC, and SEET hotline | - Conducting surveillance on patients who indicate oil exposure; follow-up with questionnaire  
- Querying EARS for “oil”  
- Began May 3, 2010  
- State link to weekly surveillance summary available | Weekly | Exposure cases:  
- 324 total reports of health effects believed to be related to exposure  
Total by worker status:  
- 241 (74%) occupational  
- 83 (34%) non-occupational  
General population health effect primarily related to odors |
| MS    | Drop-in, sentinel surveillance | - Collecting data in 5 coastal EDs using a modified ILI tool  
- Began May 9, 2010  
- Began June 11, 2010 collecting specific data on oil-related visits from coastal EDs | Weekly | Since June 11:  
- 47 oil-related visits reported  
Majority of health effects reported are of rash, respiratory, and mental health complaints |
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| FL    | ESSENCE (syndromic surveillance) | -Monitoring in 6 ED's in coastal counties for symptoms  
-Querying ESSENSE for “oil”  
-Began May 1 | Weekly beginning July 11 (previously daily)  
FPICN data also aggregated in the National PCC data | Total of 15 ED visits with health effects after contact with crude oil related pollutants. (ESSENCE)  
Often multiple exposure routes – inhalation, dermal, and ingestion  
Health effects range from throat/ocular irritation, dizziness, short of breath, nausea/vomiting, diarrhea, cough, bronchospasm, headache, rash |
| AL    | Drop-in ED surveillance using CDC form | -Collecting data in coastal EDs and urgent care facilities among patients indicating oil exposure  
-Began May 18 | Weekly | Total exposure visits to date are 94  
7 reports of oil exposure via inhalation and dermal contact  
Health effects included respiratory symptoms, cardiovascular symptoms, dermal irritation, headache, and vomiting |
Total Exposure Visits in Alabama, May 30 to July 31, 2010

*Percentage of visits that were related to the oil spill compared to total visits*
Surveillance Trend Data

• Overall decreasing trends in state’s exposure reports

• Calls to Poison Centers (PCC) for oil-related exposures
  - Peaked in June
  - Now maintain a slow downward trend
Behavioral Health Surveillance using BRFSS Methods
Proposed Objective & Specific Aims

• **Objective:** Conduct behavioral health surveillance that meets needs of:
  – States (public health & mental health)
  – Federal agencies (CDC, SAMHSA, ACF, DHHS/ASPR)

• **Specific aims:**
  – Document behavioral health impacts of oil spill
  – Identify need for and use of behavioral health services
  – Rapidly transmit data, findings, & recommendations to state and Federal stakeholders and others as appropriate
  – Consult with stakeholders regarding use and utility of the information
  – Identify longer-term information needs
Behavioral Risk Factor Surveillance System (BRFSS)

- Largest, on-going telephone health survey system
- Tracks health conditions and risk behaviors
- Conducted by the 50 state health departments, District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands
- Provides state-specific information about many health issues
Planning Assumptions

• States
  – Active participants in planning
  – Receive data files for their areas
• Leverage BRFSS infrastructure: states & CDC
• Standardized questionnaire across the 5 states
• Target: Start calls within 6 weeks
• Development facilitated by use of pre-tested “off-the-shelf” questions
  – BRFSS modules
  – Others
Options for Survey Implementation

• Stand-alone survey
  – Contract with single vendor to conduct survey in all 5 states, or
  – States collect data through supplements to their existing BRFSS survey contracts

• Supplement existing BRFSS with additional questions
  – States collect data through supplements to their existing BRFSS survey contracts
Next Steps

• 16 August: BP announces funding support for behavioral health
• $3 M from SAMHSA to CDC for survey
• Manager: CDC PH Surveillance Program Office, Division of Behavioral Surveillance (BRFSS program):
  – Coordinate development & implementation
  – Engage state & federal partners
• Immediate next steps
  – Identify participants for planning process
  – Select option
  – Define sample size, areas
  – Refine objectives & survey content
Questions?

For more information please contact CDC Emergency Operations Center

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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.