Proposed NIOSH Surveys of Healthcare Workers and Management of Health and Safety Practices

NIOSH Public Meeting
Sheraton Cincinnati Airport Hotel
Hebron, KY
April 30, 2008
Part of the Centers for Disease Control and Prevention

- The Federal agency charged with conducting research and making recommendations for the prevention of work-related injury and illness.

Created by the 1970 OSH Act (PL 91-596)
Occupational Safety and Health

**Regulation/Enforcement**
- Department of Labor
  - Mine Safety and Health Administration (MSHA)
  - Occupational Safety and Health Administration (OSHA)

**Research and Prevention Recommendations**
- Department of Health and Human Services
  - Centers for Disease Control and Prevention (CDC)
  - National Institute for Occupational Safety and Health (NIOSH)

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Study Purpose

- Describe healthcare worker health and safety (H&S) perceptions, work practices, and use of exposure controls for targeted hazards

- Describe prevalence and distribution of establishment-based H&S management policies, programs, and practices for targeted hazards

- Provide data that will be useful for benchmarking, identifying gaps relative to the use of best practices, and defining future research priorities
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Study Objectives and Impact

- Conduct web-based healthcare worker survey aimed at members of participating professional and labor organizations who have potential exposure to targeted chemical agents
- Conduct web-based management survey aimed at person with primary responsibility for worker health and safety
- Share results with participating organizations, healthcare stakeholders, the general public and the scientific community
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Past and Future Activities

Feasibility Evaluation
Oct 2002 - June 2006
Evaluated tools and methods for collecting OS&H surveillance data from healthcare workers and management
Recommendations used to develop NORA proposal

NORA Proposal
Approved - July 2007
Competitive, peer review process
Awards based on technical merit and available funding

NORA Project
Oct 2007 – Sept 2010
Conduct web-based surveys of healthcare workers and management based on lessons-learned from feasibility evaluation

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Feasibility Evaluation (2002-2006)

- Stakeholder meetings  2002
- Questionnaires development  2003-04
- Focus groups/cognitive interviews  2004
- Pilot tests (2 large medical centers)  2004-05
- Contractor final report  7/06
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Feasibility Evaluation - Major Findings

- Establishment based approach too time-consuming and more complicated than expected
- Over 90% of respondents preferred the web mode (vs paper) when given a choice
- Response rates for web respondents averaged 45% for the two pilot tests
- Accuracy of worker and management responses was very good based on post survey interviews, observations of work area and work practices, and/or review of documents

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Timeline for Proposed Surveys

- Funded Oct 2007- Sept 2010

- Activity Timeline:
  - Stakeholder Meeting: April 30, 2008
  - Focus Groups: Fall 2008
  - Pretest: Spring 2009
  - Data Collection: 2009-2010
  - Data Dissemination: 2010 -

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**Description of the Worker Survey**

- Partner with professional and labor organizations representing HCWs
- Target HCWs who use or are potentially exposed to selected hazardous chemical agents
- Recruit HCWs workers via email with hot link to web-based survey
- Voluntary and anonymous
- 30 minute self-administered questionnaire
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Worker Questionnaire

Core Module (for all respondents):
- Health and safety perceptions
- Work organization (work hours, changing shifts)
- Job stress
- Use of safe needle devices/needlesticks
- Workplace violence
- Physical demands (lifting, repetitive tasks)
- General use of PPE/C
- Medical surveillance
- Demographics

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Worker Questionnaire

Hazard Modules (for targeted occupations):
- Antineoplastic agents (n=2)
- Aerosolized medications
- High level disinfectants
- Chemical sterilants
- Anesthetic gases (n=3)
- Surgical smoke
- Cleaning agents/spill clean-up
Worker Questionnaire

Topic Areas in Hazard Modules:
- Hazard-specific training
- Specific agents used
- Exposure determinants
- Work practices and engineering controls
- Use of PPE/C

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<table>
<thead>
<tr>
<th>Module</th>
<th>Targeted Hazard</th>
<th>Specific Agents</th>
<th>Targeted Occupation(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>Cross-cutting, health and safety hazards</td>
<td>Aerosolized Medications, physically demanding tasks, sharps, stress, violence</td>
<td>All respondents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ribavirin, pentamidine, tobramycin, pick list of selected drugs</td>
<td>Respiratory therapists, nurses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Preparing Antineoplastic Agents</td>
<td>Pharmacists and pharmacy technicians</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Administering Antineoplastic Agents</td>
<td>Oncology nurses and infusion nurses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chemical Sterilants</td>
<td>Medical supply technicians</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Level Disinfectants</td>
<td>Medical supply technicians and endoscopy technicians</td>
</tr>
</tbody>
</table>

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# NIOSH Surveys of Healthcare Workers and Management
## Health and Safety Practices

## Worker Survey – Targeted Hazards and Occupations

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<table>
<thead>
<tr>
<th>Module</th>
<th>Targeted Hazard</th>
<th>Specific Agents</th>
<th>Targeted Occupation(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Surgical Smoke</td>
<td>Surgical smoke</td>
<td>Surgeons, anesthesiologists, nurse anesthetists, operating room nurses, dermatologists, medical assistants who use lasers or electrosurgery devices.</td>
</tr>
<tr>
<td>G</td>
<td>Waste Anesthetic Gases</td>
<td>Desflurane, Enflurane, Halothane Isoflurane, Nitrous oxide, Sevoflurane</td>
<td>Surgeons, anesthesiologists, nurse anesthetists</td>
</tr>
<tr>
<td>H</td>
<td>Waste Anesthetic Gases, bystander</td>
<td>Same as above</td>
<td>Medical and surgical assistants and perioperative nurses</td>
</tr>
<tr>
<td>I</td>
<td>Waste Anesthetic Gases, Post-Anesthesia Care Unit (PACU)</td>
<td>Same as above</td>
<td>Perioperative nurses</td>
</tr>
<tr>
<td>J</td>
<td>Housekeeping Hazards (selected cleaning agents and hazardous spill cleanup)</td>
<td>Quaternary ammonium compounds, phenols, aldehydes, oxidizers, etc</td>
<td>Housekeeping/janitorial/environmental services personnel</td>
</tr>
</tbody>
</table>

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Proposed Study Plan – Worker Survey

1. Identify Collaborating Organizations
2. E-mail Recruitment of Members; Hot Link Embedded in Email
3. Members Complete Online Survey; Data Stored on Secure Server
4. Data Cleanup & Analysis
5. Provide Aggregate Data To Partnering Organizations; eChartbook on NIOSH Website

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Description of the Management Survey

- Establishment-based
- Target person with primary responsibility for worker health and safety
- Web-based survey (with possible paper option)
- Addresses same H&S issues in worker survey
- 50 minute questionnaire

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Management Questionnaire

Core Section:
- Facility demographics
- H&S resources
- H&S program elements
- Workplace stress management
- Ergonomics program
- Workplace violence prevention
- Latex management/training
- Required respiratory protection, training, fit testing
- Emergency preparedness
Management Questionnaire

Topic Areas in Hazard Sections*:

- Specific agents used
- Number/gender of workers using agents
- Training
- Exposure monitoring/medical surveillance
- Work practices and engineering controls
- Required respiratory protection

*Addresses each of the seven targeted hazards covered in the worker questionnaire
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**Proposed Study Plan – Management Survey**

1. **Identify Establishment Sampling Frames**
2. **Draw Size-Stratified Random Sample of Establishments**
3. **Identify Contacts At Each Establishment**
4. **E-mail Letter and Survey Link to Each Contact**
   - **Data Dissemination**
     - eChartbook on NIOSH Website
   - **Data Clean-up and Analysis**
   - **Contact Completes Online Survey; Data Stored on Secure Server**

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**National Institute for Occupational Safety and Health**
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Study Contributors

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Submitting Comments to NIOSH

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All comments should be received by July 1, 2008 and should reference the Docket Number (NIOSH-135) in the subject heading.

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Questions?

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