

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

NIOSH Public Meeting  
Sheraton Cincinnati Airport Hotel  
Hebron, KY

April 30, 2008



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*National Institute for Occupational Safety and Health*  
**NIOSH**

- ❖ 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)



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# Occupational Safety and Health

Regulation/Enforcement

Department of Labor

Mine Safety  
and Health  
Administration  
(MSHA)

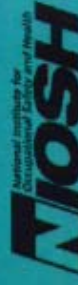
Occupational  
Safety and Health  
Administration  
(OSHA)

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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NIOSH Surveys of Healthcare Workers and Management  
Health and Safety Practices

## 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



## Timeline for Proposed Surveys

❖ Funded Oct 2007 - Sept 2010

❖ Activity Timeline:

Stakeholder Meeting  
Focus Groups  
Pretest  
Data Collection  
Data Dissemination

April 30, 2008  
Fall 2008  
Spring 2009  
2009-2010  
2010 -



## ***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



## 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



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## 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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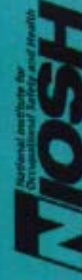
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**Worker Survey – Targeted Hazards and Occupations**

<b>Module</b>	<b>Targeted Hazard</b>	<b>Specific Agents</b>	<b>Targeted Occupation(s)</b>
Core	Cross-cutting health and safety hazards	Physical job demands, sharps, stress, violence	All respondents
A	Aerosolized Medications	Ribavirin, pentamidine, tobramycin	Respiratory therapists, nurses
B	Preparing Antineoplastic Agents	Pick list of selected drugs	Pharmacists and pharmacy technicians
C	Administering Antineoplastic Agents	Same as above	Oncology nurses and infusion nurses
D	Chemical Sterilants	Ethylene oxide, Hydrogen peroxide gas plasma	Medical supply technicians
E	High Level Disinfectants	Glutaraldehyde, Ortho-phthalaldehyde (OPA), Peracetic acid, Hydrogen peroxide	Medical supply technicians and endoscopy technicians



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**Worker Survey – Targeted Hazards and Occupations**

(Con'td)

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

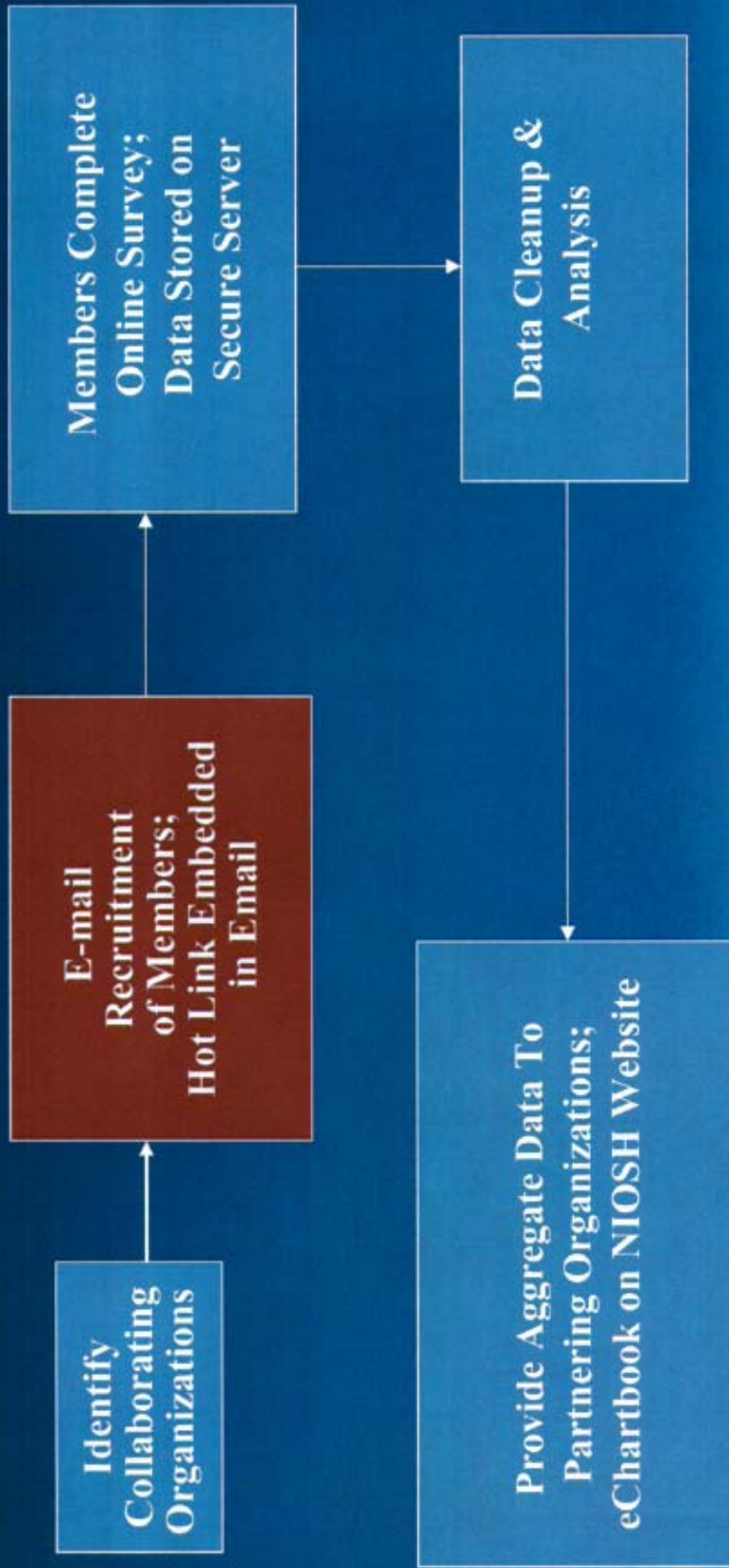


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# *Proposed Study Plan – Worker Survey*



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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



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## **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

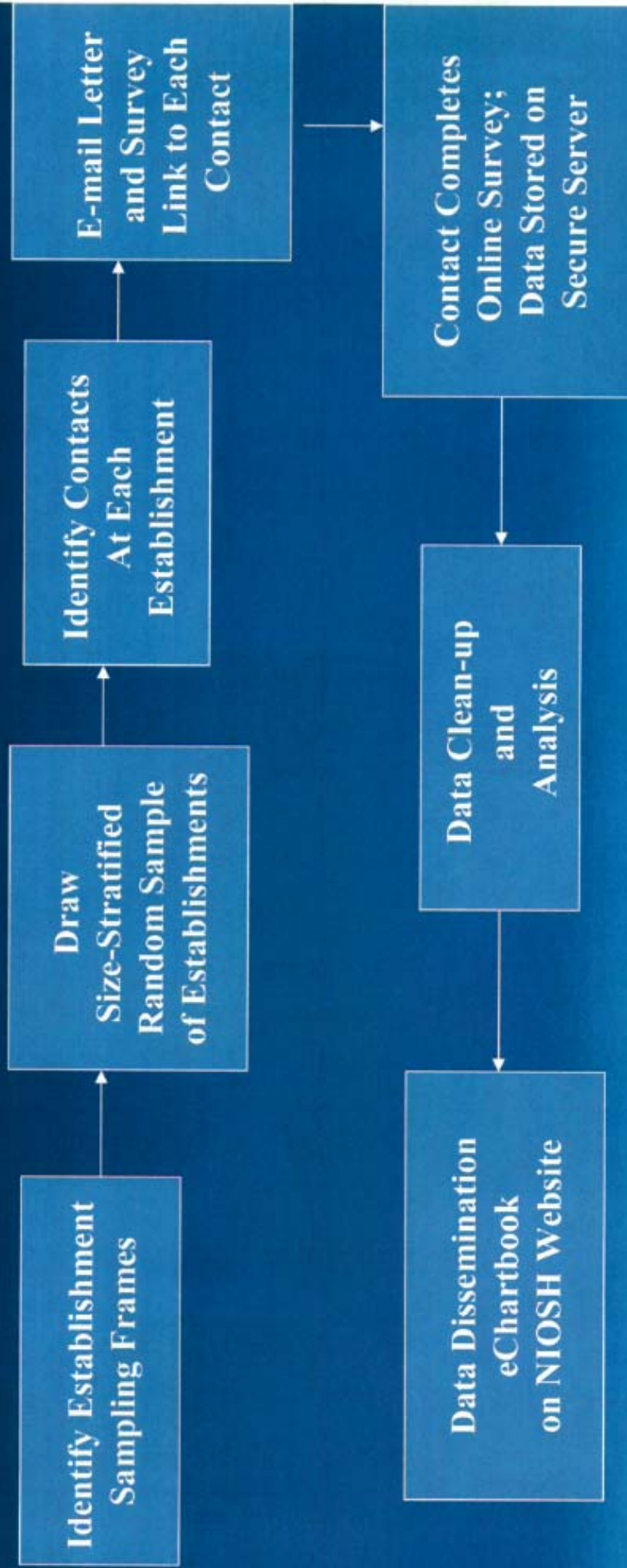
**\*Addresses each of the seven targeted hazards covered in the  
worker questionnaire**



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# Proposed Study Plan – Management Survey



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## **Study Contributors**

### **❖ NIOSH team:**

Jim Boiano, MS, CIH  
W. Karl Sieber, PhD, MS  
Claire Caruso, PhD, RN

Charles Oke, VMD  
Scott Henn, MS, CIH  
John Perrotte, BS EET

### **❖ Partners**

Various professional and labor organizations representing  
HCWs and management

### **❖ Consultant**

Mick Couper, PhD, University of Michigan Institute for Social Research



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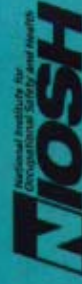
## ***Submitting Comments to NIOSH***

- ❖ Mail to: NIOSH Docket Office  
Robert A. Taft Laboratories, MS-C34  
4676 Columbia Parkway  
Cincinnati, Ohio 45226-1998  
telephone (513) 533-8450  
fax (513)533-8285
- ❖ E-mail to: [nioshdocket@cdc.gov](mailto:nioshdocket@cdc.gov)
- ❖ Web: <http://www.cdc.gov/niosh/review/public/135>

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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