Health Hazard Evaluation Program

2018 Annual Report

Photos by NIOSH
International Work

Location: Guyana

Requestor: Pan-American Health Organization (PAHO)

Concern: Worker exposure to mercury in gold processing

Impact: The NIOSH team provided exposure prevention, treatment, and policy recommendations impacting more than 500 employees.

221 HHE Requests
&
32 Site Visits

29 Workplaces
18 States
29 Cities
approx. 22,562 Miles Traveled

States visited
in 2018
Outreach

HHE webpage viewed 61,140 times

34 New HHE reports

Reports downloaded 20,299 times

234 Facebook posts

Reached 165,900 people

31,891 Page “likes”

From 45 different countries

88 Presentations

20 Peer-reviewed publications
Evaluation of Exposure to Metals, Flame Retardants, and Nanomaterials at an Electronics Recycling Company

Findings

- Some flame retardants were in the air, on employees’ hands, in their blood, and in their urine
- Metals were found outside of the processing area
- Dry sweeping and eating/drinking in the processing areas likely contributed to exposures
- Three employees had elevated blood lead levels

Recommendations

- Wash your hands with a lead-removing product
- Use respirators in the disassembly and shredding areas
- Supply outdoor air to the office ventilation system
- Instead of dry sweeping, use wet cleaning methods or vacuuming

Article Published!

Publication: Chemosphere

Article title: Field evaluation of sequential hand wipes for flame retardant exposure in an electronics recycling facility

Article available here: https://doi.org/10.1016/j.chemosphere.2018.12.027

HHE report available here: https://go.usa.gov/xExQ2
Characterizing Exposures During Laser Tattoo Removal in a Hospital Dermatology Center

Findings

- Low levels of acetone, isopropyl alcohol, and xylene were measured in air samples
- Particle concentrations were higher in the air around the dermatologist and close to the laser tattoo removal process
- Laser eyewear needed replacing
- Improper use of the “laser in use” signs could lead to accidental eye exposures

publication: Dermatology Times

Article title: Safety recommendations for tattoo removal

Article available here: https://www.dermatologytimes.com/tattoo-removal/7-safety-recommendations-tattoo-removal

Recommendations

- Report damaged or worn protective eyewear to supervisors
- Only use respirators certified by the National Institute for Occupational Safety and Health
- Discontinue use of the laser masks and molded surgical masks for respiratory protection
- Operate the “laser in use” signs only when the laser is in use

HHE report available here: https://go.usa.gov/xExxz
Opioid Investigations

13 Opioid-Related Investigations in 2018

Take a look at some of the concerns we responded to:

- Potential exposure to synthetic opioids and other controlled substances in crime laboratories

- Policies and procedures to address potential exposure to fentanyl during airport screening operations

- Potential exposure to fentanyl among medical investigators

- Potential exposure to fentanyl and other opioids including issues related to building ventilation among workers at a jail

- Impact of traumatic events and stressors including the marked increase in opioid responses among first responders

Read the full report: https://go.usa.gov/xEEdn

- Health effects from unintentional occupational exposure to opioids and other illicit drugs among responders

Read the reports here: https://go.usa.gov/xEEdN
<table>
<thead>
<tr>
<th>Key Recommendations for Emergency Responders</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Icon] <strong>Follow guidance in the NIOSH topic page titled “Fentanyl: Preventing Occupational Exposure to Emergency Responders”</strong></td>
</tr>
<tr>
<td>![Icon] <strong>Attend periodic trainings to discuss prevention methods</strong></td>
</tr>
<tr>
<td>![Icon] <strong>Coordinate joint training opportunities with other local emergency response agencies</strong></td>
</tr>
<tr>
<td>![Icon] <strong>Develop new or modify existing policies and procedures for responses involving illicit drugs</strong></td>
</tr>
<tr>
<td>![Icon] <strong>Report possible exposures to and health effects resulting from exposure to illicit drugs to supervisors</strong></td>
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Evaluation of Exposure to a New Cleaning and Disinfection Product and Symptoms Among Hospital Employees

Findings

- Chemicals from the cleaning product were detected in all full-shift air samples.
- Employees reported previous splashes and spills of the cleaning product that resulted in skin or eye irritation.
- Employees reported no ventilation in some bathrooms they cleaned.

Publication: American Journal of Infection Control

Article title: Health problems and disinfectant product exposure among staff at a large multispecialty hospital

Article available here: https://www.ajicjournal.org/article/S0196-6553(17)30295-X/fulltext

Recommendations

- Wear extended cuff nitrile gloves or rubber gloves and goggles or a face shield when using cleaning supplies.
- Do not use a spray bottle to apply disinfectant products.
- Report symptoms to a healthcare provider.
- Report patient rooms or bathrooms with no ventilation to supervisors.

HHE Report available here: https://go.usa.gov/xExER
Ergonomic Evaluation of Pharmacy Tasks

Findings

- Adjustability features available for some equipment were not used regularly
- Capping and uncapping medicine bottles required repetitive movements and awkward wrist postures
- Employees reported hand and neck symptoms consistent with work-related musculoskeletal disorders
- Repetitive motion injuries were the most common recordable injury among pharmacy department employees

Recommendations

- Utilize adjustable workstations
- Alternate between computer work and repetitive pharmacy tasks
- Increase training on musculoskeletal disorders and ergonomics
- Report work-related health and safety concerns to supervisors

HHE Report available here: https://go.usa.gov/xEczM
Followback Program

After an evaluation, we conduct mailed surveys, phone calls, and return visits to get feedback from the workplace about their experience.

Here are some words that employers, employees, and union representatives used to describe their experience and interactions with NIOSH investigators:

Excellent  Thankful  Courteous
Thorough  Organized  Clear
Knowledgeable  Grateful  Experienced
Professional  Fantastic  Improvements
Responsive  Useful  Timely
Helpful  Effective
New Specialty Publications

New Poster:
⇒ Controlling Health Hazards When Working with Nanomaterials: Questions to Ask Before You Start

View online: https://go.usa.gov/xPhyC

New Fact Sheets:
⇒ What Wildland and Structural Fire Fighters Need to Know about Rhabdomyolysis
⇒ Rhabdomyolysis in Wildland and Structural Fire Fighters: A Patient Population at Risk

View online: https://go.usa.gov/xPhJF

New Indoor Environmental Quality Assessment Tools:
⇒ Dampness and Mold in School and General Buildings

View online: https://go.usa.gov/xEmjf
-Our Mission-

The mission of the NIOSH Health Hazard Evaluation Program is to respond to requests from employees, employers, and union representatives to evaluate potential health hazards in their workplace.

These evaluations are done at no cost to the requestor. Once the evaluation is complete, recommendations are made on ways to reduce or eliminate identified hazards. Health Hazard Evaluations can help reduce hazards and create healthier workplaces.