



# HealthHazard<sup>®</sup> Evaluation Program



2017  
Annual Report

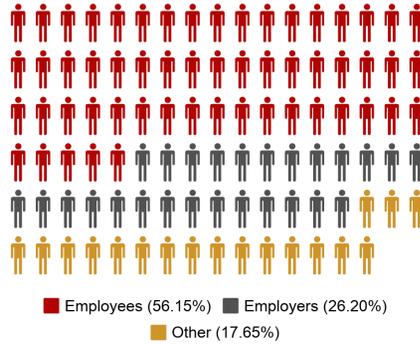
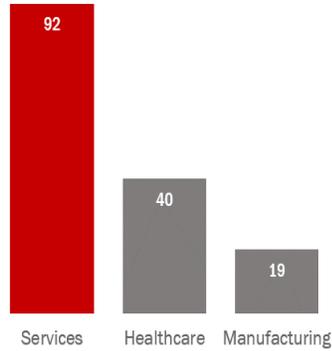


Photos by NIOSH

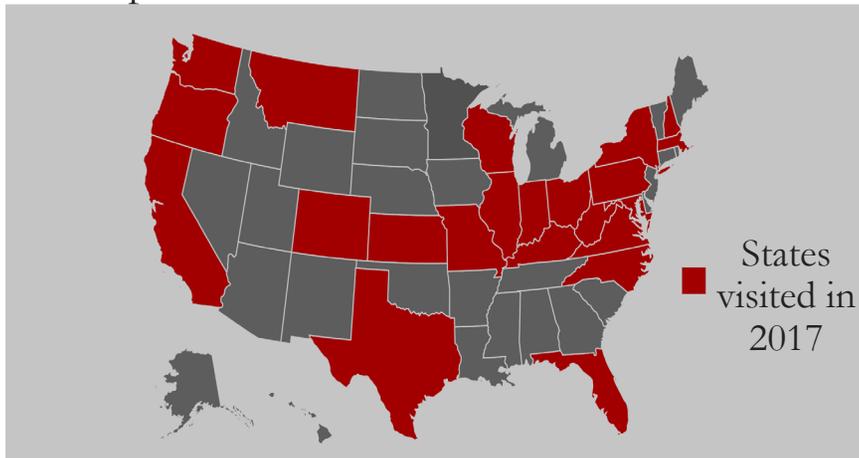
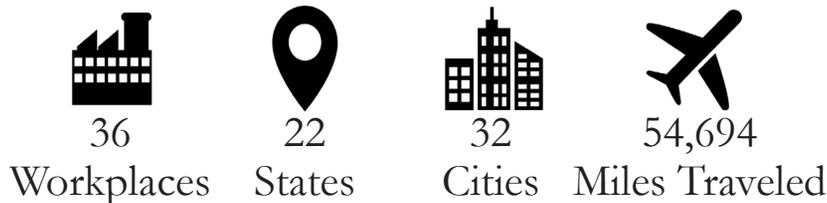


# 187 HHE Requests

Services, Healthcare, and Manufacturing were the top 3 sectors for requests



# 38 Site Visits



# Outreach



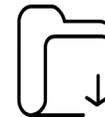
HHE website viewed **62,631** times



**36** New HHE reports



Reports downloaded **35,145** times



**779** Downloads of lead and noise databases

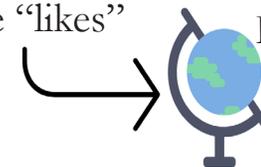


**243** Facebook posts

Reached **248,614** people



**30,842** Page "likes"



From **46** different countries



**46** Presentations



**18** Publications

# Evaluation of Exposures and Respiratory Health at a Coffee Roasting and Packaging Plant

## Findings

◆ Diacetyl air levels were highest during grinding and blending roasted coffee beans

◆ Exposures were higher when the bay doors were closed

◆ 10 full-shift air samples exceeded the NIOSH recommended exposure limit for diacetyl



Photo by ThinkStock©

◆ Eye, nose, and sinus symptoms were the most common symptoms among employees

◆ 4 times as many employees reported wheezing than expected

◆ 1 employee had abnormal spirometry and 1 had high exhaled nitric oxide, a marker of allergic airways

## Recommendations



Increase amount of fresh outdoor air and improve plant ventilation



Find alternative method to hand-blending roasted beans



Avoid placing head directly inside storage bins of roasted beans

Report available here: <https://go.usa.gov/xneSf>

# Evaluation of Hazards during Harvesting and Processing Cannabis at an Outdoor Organic Farm



Photo by NIOSH

## Findings



Photo by NIOSH

◆ Employees used repetitive hand motions when trimming cannabis, which could lead to hand and wrist musculoskeletal disorders

◆ Tetrahydrocannabinol, the psychoactive component in cannabis, was detected on all surface wipe samples

◆ *Botrytis cinerea*, a plant pathogen that can cause allergic reactions, was the main fungal species found in the air

## Recommendations



Provide frequent breaks for employees when trimming cannabis by hand



Develop a plan to rotate employees among jobs that use different muscles

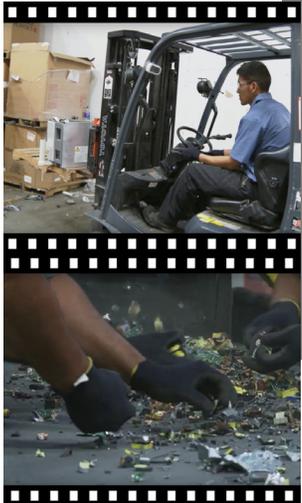


Wear nonlatex gloves when handling cannabis



Develop a cleaning schedule to remove tetrahydrocannabinol from work and tool surfaces

Report available here: <https://go.usa.gov/xneS3>

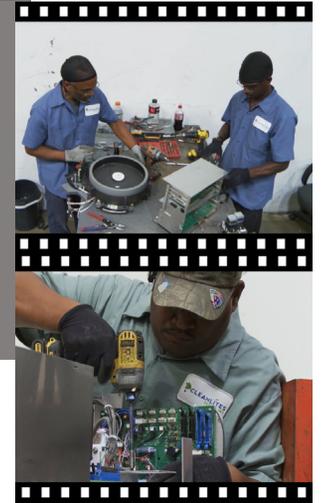


Photos by NIOSH



# LIGHTS, CAMERA, ACTION!

Get an inside glimpse into how we conduct our evaluations by watching our 3 new videos! A camera crew captured the action during our visit to an electronics recycler.



Photos by NIOSH



Photos by NIOSH



Photos by NIOSH



Learn how we measure for contaminants and harmful materials in the air, on employees' hands and workplace surfaces, and in employees' bodies.



Hear directly from the employer and employees about what it is like to participate in an HHE evaluation and their experience working with the program.



Grab some popcorn and watch the videos here: <https://go.usa.gov/xneSr>





Photo by ThinkStock©

## Evaluation of Fire Fighters' Mental Health Symptoms and Exposure to Traumatic Events, Job Stress, and Bloodborne Pathogens

Findings



Firefighters reported high job stress and all experienced traumatic events at work



Some firefighters' symptoms were consistent with post-traumatic stress disorder, anxiety, and depression

67%

Reported handling used needles or sharps

40%

Reported coming into contact with drugs

16%

Reported some type of potential bloodborne pathogen exposure

### Recommendations



Provide training on suicide prevention, psychological first aid, and stress



Use nitrile gloves during potential bloodborne pathogen exposures and opioid overdose responses



Report potential exposures, symptoms, and injuries to supervisors

Report available here: <https://go.usa.gov/xneSc>



Photo by NIOSH

### FINDINGS



Photo by NIOSH

- ◆ Employees vaped at work
- ◆ Employees did not wear gloves when handling liquids containing nicotine



Nicotine solution was stored in the same refrigerator as employees' food



Air concentrations of vaping-related chemicals were below occupational exposure limits



Photo by NIOSH

### RECOMMENDATIONS



Prohibit vaping in the shop with e-liquids that contain diacetyl and 2,3-pentanedione



Wear nitrile gloves when handling liquids that contain nicotine



Do not store chemicals in food storage areas



Inspect and maintain the shop's exhaust ventilation

Report available here: <https://go.usa.gov/xneSx>

## Followback Program

After an evaluation, we followup with the workplace to see how we did and learn how things changed in the workplace. We do this through mailed surveys, phone calls, and return visits. Here's what some employers, employees, and union representatives had to say:

 "NIOSH made things better in our workplace. The positive changes that have taken place are the reaffirmation of our current practices and have supported the changes that we needed to make."

"I was very impressed with our NIOSH team. They... worked closely with our medical provider to ensure the program put in place was compliant and our employees were protected."



 "NIOSH staff were very professional and listened well to management and labor concerns. No matter how the findings worked out, it was advantageous to have the study conducted by a highly credible organization like NIOSH."

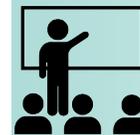
"The HHE was very informative. The employees have a better understanding of the resources available to them and how to deal with possible workplace hazards."



Photo by NIOSH

## HURRICANE RESPONSE 2017

Eight members of the HHE Program were deployed to help with CDC's response to Hurricanes Harvey, Irma, and Maria. They assisted in a variety of response efforts in Atlanta, Texas, U.S. Virgin Islands, and Puerto Rico. Learn more about some of their activities below.



Kendra Broadwater trained responders in Texas on the Emergency Responder Health Monitoring and Surveillance (ERHMS™) framework. Her team trained 135 staff members from the Texas State Health Department, the Harris County Health Department, the University of Texas Health Science Center at Houston, and other community organizations.



While assessing damage at health clinics and hospitals in Puerto Rico, Mike Grant and Mark Methner helped to streamline the information collection process. Their work helped to create an app for responders to use in the field.



Donnie Booher trained and fit-tested approximately 120 archivists from the Smithsonian Institute, the National Archives and Records Administration, and the Puerto Rican government.



# Health Hazard<sup>®</sup> Evaluation Program



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.



[cdc.gov/niosh/hhe/](http://cdc.gov/niosh/hhe/)



[HHERequestHelp@cdc.gov](mailto:HHERequestHelp@cdc.gov)



[facebook.com/health.hazard.evaluation.program/](https://facebook.com/health.hazard.evaluation.program/)



1-513-841-4382  
Monday—Friday  
9 a.m. — 4:30 p.m. EST



NIOSH Health Hazard Evaluation Program  
1090 Tusculum Ave, Mail Stop R-9  
Cincinnati, OH 45226-1998