

State Health Departments and the NIOSH Health Hazard Evaluation Program: Working Together



Department of Health and Human Services

Centers for Disease Control and Prevention

National Institute for Occupational Safety and Health



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The Health Hazard Evaluation (HHE) Program evaluates workplace health hazards throughout the United States. We are sharing this information so you can learn about working with the HHE Program. We can work together to help meet your public health mission. Although this document was developed for state health departments, the information can be used by other state agencies.

What is the Health Hazard Evaluation Program?

The HHE Program is a core function of the National Institute for Occupational Safety and Health (NIOSH). It is mandated under the federal Occupational Safety and Health Act. Since the early 1970s, the HHE Program has evaluated thousands of workplaces. We have helped those in healthcare, manufacturing, services, transportation, agriculture, construction, mining, and government. Our evaluations are done at no cost to the requestor or those at the workplace.

We have experts in occupational and other medical specialties, veterinary medicine, epidemiology, industrial hygiene, behavioral science, statistics, and health communication. In assembling our evaluation teams, we provide a customized response to the workplace concerns.

We evaluate a variety of hazards including the following:

- Physical agents, such as heat, radiation, and noise
- Chemicals, such as solvents, metals, and particulates
- Biological agents, such as mold, bacteria, and endotoxins
- Infectious diseases, such as tuberculosis and influenza
- Workplace conditions, such as ergonomics, work stress, workplace organization, workplace bullying

When should you consider requesting help from the Health Hazard Evaluation Program?

Contact us if you know of workplace exposures or conditions that may be making employees sick. If the concern is imminently dangerous to health and safety, the Occupational Safety and Health Administration (OSHA) should be notified immediately.

You also can recommend that the employer, employees, or union contact us. Employees can ask that the HHE Program not share their name with the employer.

Consider the HHE Program when any of these situations arise:

- You suspect an emerging hazard, or exposures and health effects that are not well understood

- Conditions and exposures are causing serious health problems
- Exposures to unregulated agents are occurring
- New sampling methods are needed to best assess the work environment
- The effectiveness of exposure controls is unclear
- You are aware of a situation you feel must be dealt with but the resources or expertise are not available at the state level

If the situation is a well-known hazard for which there is an OSHA standard and established control strategies, it would be more appropriate to contact OSHA.

How will the Health Hazard Evaluation Program work with you?

Your role can vary. We can:

- Provide free consultation for your investigation
- Do our own investigation and report the findings to you
- Work with you on a joint investigation. State health department employees have participated in walk-through surveys at the work site. In situations where there are no medical confidentiality issues, they also have helped with translations, questionnaires, interviews, and environmental sampling. We can discuss your role at the beginning of the evaluation.

The HHE program follows federal privacy act rules on sharing of confidential information. When the investigation is under HHE program authority, the HHE regulations (Code of Federal Regulations Title 42, Volume 1, Part 85) on participation of third parties apply. The NIOSH project officer can determine which parties can participate in the site visit according to the HHE regulations.

When we get a request from an employer, three or more employees, or a union; the hazards are covered by our regulations; and the workplace is covered by the federal Occupational Safety and Health Act, the HHE Program has the right of entry. When we get an HHE request from a state health department, we do not have authority to investigate the workplace without the consent of the employer. If the employer does not grant consent, we may be able to do an evaluation using state or local public health authority.

What happens when you request a Health Hazard Evaluation or make a referral?

Our first step is to assess the background information. We will decide if we will do a phone consultation or an on-site evaluation.

Phone consultation

Often, we can help without visiting the workplace. This is especially true for common hazards or health conditions. Examples are mold in schools or office buildings or cancer in nonindustrial settings. For these, we talk by phone from the employer and employees. We also review reports about exposure, illness, and injury. We issue a letter with our conclusions about the hazard and recommendations usually within 3 months of receiving the request. We also may suggest other agencies or organizations that could help. For most requests, the letters routinely are sent to the state epidemiologist. We can share the letter with you.

On-site evaluation

If we decide to do an on-site evaluation, we develop a site visit plan. We will go to the workplace at a time agreed upon by all involved. It is our goal to conduct the site visit within 3 months of receiving the request. Depending upon the specific nature of the request, it may be longer.

During site visits we may:

- Observe work processes and practices
- Meet with managers and talk with employees
- Interview or survey employees about their health
- Carry out medical tests
- Review reports of exposure, injury, and illness
- Measure exposures in the work environment
- Evaluate exposure controls

How do you request help from the Health Hazard Evaluation Program?

- **Fill out our online request form** (<http://www.cdc.gov/niosh/hhe/hheform.html>)
- Download and print this form:
http://www.cdc.gov/niosh/hhe/pdf/hhe_request_form.pdf. Fax it to 513-841-4488. Or mail it to:
National Institute for Occupational Safety and Health
Hazard Evaluation and Technical Assistance Branch
1090 Tusculum Avenue, Mail Stop R-9
Cincinnati, Ohio 45226-1988

After the evaluation - what happens?

We send a brief site visit summary letter within a few weeks of the site visit. We can share this letter with you. When we do exposure measurements or medical tests on employees, we send personal results to each participant. We also send summary results to the employer and employee representatives. We can share the summary letter with you.

In our final report, we recommend ways to reduce or eliminate identified hazards. Our goal is to produce the final report within a year of the final site visit. We can share the report with you. It also can be downloaded from our website. Even when you are not involved in an HHE, you might find our reports helpful. The findings from one workplace often apply to others. You can search the database of HHE reports at <http://www2a.cdc.gov/hhe/search.asp>.

The HHE Program has no enforcement authority. But, we know that employers often act on our recommendations. Improving workplaces can improve employee productivity and reduce workers' compensation costs and medical expenses.

We follow up most on-site evaluations with telephone calls and mailed surveys. Sometimes, we return to the workplace. When we do a followup visit, we can share what we learn with you.

How is the Health Hazard Evaluation Program different from the Occupational Safety and Health Administration (OSHA) Consultation Program?

Both programs help protect workers.

The OSHA Consultation Program can only respond to requests from employers. The HHE Program can respond to requests from employers, unions, and employees. As described in this document, we also respond to requests from other government agencies although our response is subject to the provisions of federal laws and regulations.

The OSHA Consultation Program staff includes industrial hygienists and safety engineers. Their focus is on helping companies comply with OSHA regulations. The HHE Program staff includes those with exposure and health assessment expertise. Their focus is on helping employers and employees learn about health hazards and ways to resolve them.

Neither program enforces regulations or issues penalties. When the OSHA Consultation Program finds "serious" hazards, they give the employer a deadline for correcting them. Uncorrected hazards can be referred for enforcement. The Council for State and Territorial Epidemiologists issued a publication "Guidance: Public Health Referrals to

OSHA" which provides additional information about interacting with the OSHA consultation service (<http://www.cste2.org/webpdfs/occupational/OSHAreferral922011.pdf>).

Advantages that an HHE offers employers

An evaluation offers employers several benefits.

- They can learn whether exposures or conditions in the workplace may harm employees' health.
- They can learn how to reduce or eliminate workplace hazards and prevent work-related illnesses and injuries.
- They may see an increase in employee productivity and a decrease in workers' compensation costs and medical expenses if you improve workplace health and safety programs.

Examples of Health Hazard Evaluations initiated by state health departments

These case studies illustrate that referrals from state health departments can help improve public health. In each of the following, the HHE identified workplace health hazards. Employers and employees received advice on ways to remove or reduce those hazards.

HHE Example 1

A state health department asked for help when they were notified of cases of occupational asthma among employees at one company. The affected employees worked with two chemicals that might cause asthma. One was known as AMT; the other as DE-498. The HHE uncovered 12 cases of physician diagnosed asthma. In 11, the onset of asthma was related to the timing of AMT use. HHE Program investigators found both chemicals in the air when employees added them by hand. The HHE Program worked with NIOSH laboratory scientists to study the chemicals. They found that AMT, but not DE-498, caused an allergic response. The HHE team recommended installing local exhaust ventilation, training employees to identify work-related respiratory symptoms, and the use of personal protective equipment.

<http://www.cdc.gov/niosh/hhe/reports/pdfs/2000-0096-2876.pdf>

HHE Example 2

The environmental and occupational epidemiology programs in one state asked for an HHE at a plant using trichloroethylene (TCE). The HHE Program did an exposure and health study at the plant and at an adjacent plant not using TCE. About half the exposed employees reported feeling high or lightheaded while at work. About one-fifth of the non-

exposed employees reported these symptoms. The TCE-exposed group also had deficits in four neurobehavioral tests.

About 25% of the TCE-exposed employees tested had levels of a TCE metabolite in urine over the occupational biological exposure limit. Levels of TCE in air were below the OSHA occupational exposure limit but above the NIOSH occupational exposure limit. Production employees wore respirators during some tasks but not during routine work activities. HHE investigators recommended changing the production process and adding local exhaust ventilation. Until these steps could be taken, they also recommended enhanced use of respiratory protection. <http://www.cdc.gov/niosh/hhe/reports/pdfs/2004-0372-3054.pdf>

HHE Example 3

Occupational health staff in a state health department asked the HHE Program for help. They were concerned about exposure to 1-bromopropane (1-BP) in dry cleaning shops. Exposure has been linked to peripheral neuropathy. State staff worked with local employers to find shop owners willing to participate. The team visited four shops. They interviewed those working in the shop about work processes, work practices, and health problems. One person reported transient lightheadedness, which is consistent with general solvent exposure. One person had acute symptoms requiring medical attention. He did not have residual neurological deficits.

The investigation team sampled air in the shops for 1-BP. They detected the chemical in the workplace air. No exposure limits exist. Investigators recommended using a qualified technician to convert machines for 1-BP use, improving general ventilation, not heating the solvent, and not cutting drying periods short. They also advised using respirators and developing a respiratory protection program. The results of this evaluation were used by federal risk assessors to develop occupational exposure guidelines. <http://www.cdc.gov/niosh/hhe/reports/pdfs/2008-0175-3111.pdf>

HHE Example 4

A poultry processing plant employer requested an HHE. The state health department referred him to NIOSH. The employer's concern was about *Campylobacter* infection among employees. The HHE Program went to the plant. Investigators reviewed work practices and procedures, health and safety-related programs, and medical records. They also interviewed 88 employees.

Using state surveillance records, HHE investigators found 29 cases of laboratory-confirmed *Campylobacter* infection among plant employees. Most worked in the live hang area, worked at the plant for less than 1 month, and were part of a state corrections

department work program. Almost one third of the employees reported being ill recently with gastrointestinal symptoms. Fewer than half reported their illness to the plant. The HHE team observed inconsistent hand hygiene and personal protective equipment use. Supply air vents above the heads of the live hang area employees were directed toward the conveyor carrying live chickens. This placement could spread airborne contamination from the birds to the employees. Recommendations included improving sanitation, redirecting airflow, improving training, and enhancing compliance with hand hygiene and personal protective equipment use. An HHE team returned to the plant after changes were made. The rate of *Campylobacter* infection had decreased.

<http://www.cdc.gov/niosh/hhe/reports/pdfs/2011-0058-3157.pdf>

For more information about the HHE Program visit

<http://www.cdc.gov/niosh/hhe>.

If you have questions or want to discuss a particular situation, please contact us.

- Phone: 513-841-4382. Ask for the Branch Chief
- Email: HHERequestHelp@cdc.gov