



Volume 16, No. 3 Summer 2005

Excerpts from the 2004 Annual Reports

Work-related deaths and illnesses continue to occur in Michigan. For lead poisoning, silicosis and repetitative strain conditions there has been a downward trend over the years. This same downward trend has not been seen for noise-induced hearing loss, work-related asthma, or acute traumatic fatalities.

In previous announcements of the availability of the latest Annual Reports, the excerpts in our summer newsletter have highlighted some of the important figures and tables from the reports.

What can get lost in the statistics is the human story behind the numbers. This year we are excerpting some of the short clinical histories that are in these reports about the individuals who have become sick or died from their work. The full reports contain all the clinical histories as well as summary tables and figures.

Now Available New Annual Reports on

Acute Traumatic Fatalities in Michigan (2003)
Asthma Fatalities Ages 2-34 in Michigan (2003)
Elevated Blood Lead Levels in Michigan (2004)
Occupational Diseases in Michigan (2004)
Occupational Pesticide Illness and Injury Surveillance in
Michigan: June 2001—December 2003
Silicosis in Michigan (2004)
Work-Related Asthma in Michigan (2004)
Work-Related Noise-Induced Hearing Loss in Michigan (2004)

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New Report

Summary of Acute Pesticide Illness and Injuries in Michigan Published for the *first time* by the Michigan Department of Community Health

A 25-year-old male correctional facility worker was exposed to an organophosphate bug spray in a closed room. He had a headache, nausea, vomiting, diarrhea, irritated eyes, cough, and chest tightness.

A 54-year-old female employee of the same correctional facility was also exposed to the bug spray. She had a headache, nausea, vomiting, diarrhea, burning eyes, itchy skin, nosebleed, cough, sore throat, chest tightness, and shortness of breath.

A 37-year-old male exterminator sprayed a pyrethroid insecticide outside when the wind changed and some sprayed on his face. He had a rash and swelling around his eyes and his face felt burnt.

A 23-year-old woman spraying for mosquitoes developed difficulty breathing, swelling of her face and eyes, trouble swallowing, dizziness, sore throat, chest pain, and a cough. This case was referred to MDA, and they found that the employee was not certified or registered to apply pesticides and was not working under the direct supervision of a certified applicator. In addition, the pesticide used was no longer registered in Michigan.

2004 Annual Report on Blood Lead Levels in Michigan

Heavy Construction

A male in his 40s requested a blood lead test from his physician. Multiple tests during 2004 showed results ranging from 14 to 95 μ g/dL. He reported weight loss, abdominal colic, pain in joints, muscle weakness, headaches, dizziness, depression, exhaustion, nervousness, nightmares, irritability, and difficulty concentrating. He denied any lead-related recreational activities. He worked in heavy construction as a torch cutter for a bridge demolition company for the past six years. He reported that the company did not have separate lockers, a place to wash work clothes, showering facilities, or a lunch room. He wore a respirator approximately 6 hours of his 10 hour work day; however, he had never been fit tested or trained on how to use a respirator. He had facial hair. He reported never having had medical monitoring or being informed of the hazards of lead. He was a current smoker and was allowed to smoke in the work area and carried his cigarettes with him. He was not removed from the job; however, he did not return to work after chelation. He currently works digging trenches for another company. The company was referred for an enforcement inspection by MIOSHA; results are pending. There was an infant in the home that was tested for lead; those results were < 10 μ g/dL.

Primary Metals Industry (Foundry)

A male in his 40s requested a blood lead test from his physician. His result was 65 µg/dL. He denied lead-related health symptoms. He denied any lead-related recreational activities. He worked at a small foundry pouring lead for the past eighteen years. He reported that the foundry did not have separate lockers to separate work clothes from street clothes, he did not wear a respirator and he had never had any medical monitoring. He did indicate that there were showering facilities at work, coveralls were provided, and a lunch room available. He was not removed from the job. He was a non-smoker. The foundry was referred for an enforcement inspection by MIOSHA. Final results are pending; however, initial 8-hour time-weighted average (TWA) results for lead indicate levels of 130, 200, 780, 500 and 380 mg/m³ of air compared to the allowable limit of 50 µg/m³.

Amusement and Recreation

A male in his 40s requested a blood lead test from his physician because a fellow co-worker had an elevated blood lead level. Multiple tests during 2004 showed results ranging from 42 to 59 μ g/dL; tests in 2003 showed results of 53 and 82 μ g/dL. He worked for a firearms sports shop for the past five years. A MIOSHA enforcement inspection was completed at the sports shop and citations for violations to the lead were issued. Citations included: not conducting biological monitoring of the employees, not providing follow-up blood sampling when indicated, and for not removing an employee from work when indicated.

2004 Annual Report on Work-Related Asthma in Michigan

Cleaning Products, WHOLESALE AND RETAIL TRADE

RA-Case 2264. A female in her 20s developed RADS a year after beginning to work as a cashier at a wholesale food store. In addition to running the check out counter for customer purchases, she was also responsible for mopping the floors. Her breathing troubles began when she was mopping the floors with bleach, and there was already a cleaning product on the mop she was using. The mixing of the bleach with the other cleaning product caused her to have an immediate reaction—with chest tightness, coughing, wheezing and shortness of breath. She continues to work at this store, and is not allowed to use bleach. Her symptoms have worsened since this incident, and now other chemical fumes trigger her asthma. She continues to take asthma medication to control her symptoms.

Cobalt, MANUFACTURING

OA-Case 2184. A male in his 20s developed asthma while working for a tool and die company as a machinist. His job was to grind carbide; he was exposed to carbide dust in this job for three years before his asthma developed. For the first 2 ½ years that he worked in this job, there were no dust collectors on the grinders. In addition, the workers were not provided with any respiratory protection, and not provided with MSDS on the substances they were working with. After new ownership, dust collectors were put on the grinders. However, this worker is currently on medical leave with less than a 50% lung capacity, as measured by a recent pulmonary function test. He continues to experience breathing problems and take asthma medication.

Glutaraldehyde, HEALTH CARE SERVICES

OA-Case 2196. A female in her 30s developed asthma from working with glutaraldehyde and formaldehyde at a hospital where she was responsible for cleaning endoscopes. Her asthma developed 12 years after beginning to work at the hospital; the last two of those 12 years she had been assigned to the endoscopy unit. Since her asthma developed, she was reassigned to an office job at the hospital and her medication use and symptoms have lessened.

Indoor Air Quality, OFFICE WORK

EA-Case 2146. A female in her 40s experienced an exacerbation of her asthma during her work as a phone company service representative. When she was moved to a new building after working 13 years for the company, she noticed that her breathing problems became worse at work. The patient described wet ceiling tiles when it rained, sewer problems, and cockroaches at her place of work. In addition, she stated that the cooling system would often "get plugged up" and once it was working again would blow out lots of dust. She describes at least 45 others where she works as having similar breathing problems. Both an occupational physician and a pulmonologist told the patient that her asthma had become worse over the years, and that something at work is triggering her episodes.

2003 Annual Report on Traumatic Work-Related Fatalities in Michigan

A 37-year-old female furnace operator died when she was crushed between the substructure of a lift platform and the floor. The substructure supported the dump platform at a height of about 80 inches from the floor. The substructure and platform would rise to allow parts to be dumped, and then lowered. The dump station cycle including the rising, dumping, and lowering was between 3-1/2 to 4-1/2 minutes from the time two actuating buttons were initiated. The cycle was automatic as the buttons did not require constant pressure. Because the substructure supporting the platform created exposed pinch points during the automated dumping, a metal mesh guarding originally secured with nuts and screws was placed around it. The mesh guarding surrounding the victim's station had been damaged by a forklift truck and was attached only at the top with nylon wire ties. She entered the area under the substructure while the dump station was in operation to retrieve three metal parts by lifting the mesh guarding from the floor. The parts had fallen either from the loaded parts bin, the lift platform, or during the dumping operation. She was trapped and crushed by the substructure on its downward cycle before she could get back out. The cause of death was blunt trauma, multiple injuries.

A 23-year-old male paper production maker was killed when his head was caught between a low hanging overhead water pipe and the fork-mast of a forklift that did not have overhead guard protection. The victim had completed forklift training provided by the company and was licensed to operate a forklift. A vacuum pump located in the basement was not working. After locking out the electric motor, a coworker loosened the motor mount bolts. The coworker and victim needed a forklift to move the motor to facilitate its repair. There was 2 inches of water on the floor and the operators could not see a plastic drainage grate in the floor that covered a 5-inch deep u-drain. As they maneuvered the truck into position, the left rear tire broke through the grate and caused the right front forklift tire to raise off of the ground. With the forklift still running and in reverse gear, the victim and his coworkers attempted to free the forklift from the grate by using a 74" by 2" pipe as a pry bar. One coworker was adding his weight to the front of the truck to bring the tire to the ground while another coworker was using the pry bar to lift the left rear tire from the drain. One the right front tire moved down and touched the floor the forklift began to move in reverse. At this point, the rear of the forklift was approximately 8 feet from the overhead water pipe. The victim jumped onto the moving forklift behind the controls in the driver's position, with one foot on the side step and his head lined up behind the forklift's mast. The mast was in a fully lowered position; mast height was 72 inches. The victim was looking in the opposite direction of the forklift's travel. The forklift traveled approximately 1-2 feet with the victim in the operator's station before traveling under a 6-inch overhead water pipe that was approximately 74 inches above basement floor. As the forklift traveled under the pipe, the victim's head hit the overhead water pipe. His head was crushed between the overhead pipe and the forklift's mast. The forklift continued its reverse travel until it hit a wall. The forklift had been equipped with overhead protection but was removed to permit the forklift's use in the basement. The forklift was not required to have overhead protection when it was used in the basement. Emergency response was called and the victim was taken to a local hospital where he was declared dead.

An 18-year-old male construction worker was fatally injured when a steel roof truss that was standing on stabilized gravel tipped over onto the midsection of his body. It was his second day on the jobsite. The beam he was working with was 50-feet by 5-feet high and 91/4 inches wide. A coworker was using a rough terrain forklift to set the beam in a vertical position. No bracing or support system was used to keep the beam from falling. The victim, after placing the chokers on the beam would then signal the crane operator to hoist and set the truss. The victim threw one choker over the top of the beam, and then threw the 2nd choker. The beam started to fall. Before he was able to hook the strap onto the 5000-pound beam, the beam started to tip toward the victim. It appears he tried to stop the beam from falling instead of getting out of the way. The victim was not a trained or qualified rigger. The beam fell on the victim's midsection, crushing him.

2003 Annual Report on Asthma Deaths Among Individuals Aged 2-34 Years in Michigan

An adult woman who had developed asthma as an adult collapsed at home and died. Her cause of death was attributed to over reliance on rescue inhalers and a nebulizer. She had regular medical care but had not eliminated all triggers including cigarettes and pets and did not regularly use inhaled steroids.

A male teenager who had asthma for about five years had cold symptoms and some respiratory symptoms at night, but woke up the next morning feeling good. Later that morning he became acutely short of breath and was found unresponsive next to his nebulizer when the police broke in the door. There was a concern by the advisory panel about an over reliance on a nebulizer and β-agonists, and lack of coordination of care.

An adult male who had asthma since childhood collapsed at home after using his nebulizer. He had been to the Emergency Department the day before his death. There was a history of poor compliance with using steroids. He lacked insurance for medication and the panel felt he needed a specialist, monitoring with pulmonary functions and more steroids prescribed.

A female pre-teen who had asthma for about five years who frequently had nighttime symptoms became short of breath at night. This progressed to the point she was unable to use her nebulizer and became unresponsive. Despite Emergency Department visits and two hospitalizations in the year before her death she was not using any steroids. There were multiple asthma triggers at her home.



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In this issue:

Excerpts from the 2004 Annual Reports

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S Remember to report all cases of occupational disease!

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